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REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNIT 5 VOLUME 4 OF 5 APPENDIX D (CONTINUED) DRAFT JUNE 1994

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REPORT

REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNIT 5

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

VOLUME 4 OF 5

APPENDIX D (CONTINUED)

JUNE 1994

U.S. DEPARTMENT OF ENERGY
FERNALD FIELD OFFICE

DRAFT

D.2 GEOGRAPHIC DISTRIBUTION OF FEMP SOIL CONTAMINATION

The FEMP has been divided into geographic areas based on primary source potential, migration potential, and physical characteristics. The individual areas are depicted in Figure D-1 and Plate D-1 as follows:

- Plant 1 area
- Plant 2/3 area
- Plant 4/5/7 area
- Plant 6 area
- Plant 8 area
- Plant 9 area
- Sewage treatment plant area
- Pilot plant area
- Laboratory area
- Administration area
- Electrical substation area
- Maintenance building area
- Tank farm and boiler house
- D&D building and drum baling area
- Scrap metal pile, decontamination building, and Buildings 63 and 64
- Graphite furnace, oil burner, and coal pile area
- KC-2 warehouse area
- Fire training area
- Trap range
- Area west of K-65 silos
- K-65/Clearwell line west
- Clearwell line east
- Outfall pipeline
- Great Miami Riverbank characterization
- Southwest Field area
- Northeastern area of FEMP
- Southern area of FEMP
- Western area of FEMP
- Northwestern area of FEMP
- Area outside FEMP adjacent to boundary
- Area 2-5 miles outside FEMP boundary

Section 1.3 describes the major plant areas and their associated processes. Tables D.2-1 through D.2-31 present the distribution of each constituent throughout the area with respect to the 95th percentile background levels (background) for radionuclides and inorganics and detection limits for organics, PCBs, dioxins, furans, and pesticides.

The following sections describe the individual areas, provide a brief history of activity in the area, and document both past and ongoing removal actions. The observed contamination from radionuclides, inorganics, volatile and semivolatile organics, PCBs, and pesticides in the surface and subsurface soils is then discussed. Finally, an overview of the potential sources of contamination is presented.

D.2.1 PLANT 1 AREA

The Plant 1 area (see Figure D.2.1) encompasses the northwestern quadrant of the former production area. The Plant 1 pad is a concrete storage area adjoining Plant 1 to its immediate north and east. Adjoining waste storage areas consist of a construction rubble mound, a scrap metal pile consisting mainly of copper, and another scrap metal pile consisting of miscellaneous metals. The total area of the Plant 1 pad and the adjoining unpaved areas is reported to be approximately 12 acres. The area of the pad is approximately 8 acres. The boiler house and tank farm are located to the east, and Plant 2/3 is located to the south.

Plant 1 was the "sampling plant" for the FEMP facility. The main functions that were performed at Plant 1 were the following:

- Drum Sampling: Sampling of incoming ores, in-process material, and process residues.
- Crushing/Milling: Crushing and milling of ores and ore concentrates.
- Enriched Materials Reclamation: Digestion of enriched materials (up to 16 percent uranium-235 or higher) and storage of a variety of materials for reclamation, including unirradiated fuel rods.
- Drum Washing and Straightening: Cleaning of drums to remove ore concentrates and straightening (rerolling) for reuse.
- Solvent Reclamation: Distillation of dry-cleaning solvents for reuse at service building.
- Wastewater Handling: Wastewater storage and removal of particulate matter prior to transfer to the general sump.
- Repackaging: Transferring of material from old, leaking drums into new drums or into secondary containment overpacks.
- Storage: Storage of a variety of materials in drums including milled ores, dried raffinate, and Paducah ash.

Uranium and thorium that were present in the ores and as various compounds from the production processes were reported to have been sampled in Plant 1. Uranium (containing uranium-235 enriched to 20 percent), radium-226, cesium-137, americium-241 and certain heavy metals (such as cadmium, chromium, lead) might have been handled during the enrichment/reclamation process. Chlorinated solvents, such as 1,1,1-trichloroethane, trichloroethene, tetrachloroethene, carbon tetrachloride, and other solvents, were recovered in the solvent reclamation process. Uncharacterized, low-level,

radioactive wastes and RCRA hazardous wastes were drummed/overpacked in the repackaging operation. Uranium, thorium, radium, and a variety of heavy metals that might have been present in the milled ores and dried raffinates were stored in ore silos.

It is expected that any of the above operations, if performed under uncontrolled conditions, could have caused the contamination of surface and subsurface soils by a large variety of radiochemical, inorganic, and organic constituents.

Five main soil sampling investigations have been conducted in the Plant 1 area.

- RI/FS surface soil and soil borings programs, 1988
- Concrete pad maintenance investigation
- Removal action support investigation, May 1991
- Pre-excavation sampling program
- Post-excavation sampling program

Soil sampling locations for the Plant 1 area are shown in Figure D.2-1. Locations where surface or shallow subsurface soil samples were taken are identified by alpha-numeric code titles (P1P1 or Zone 1-273). Locations where surface as well as subsurface soil samples were taken are identified by a boring location number.

Based on the findings of the initial sampling programs, the grass-covered area west of the Plant 1 pad was excavated to depths ranging from 1.5 to 2.0 feet, based on information obtained from Mr. Grant Hale, Construction Manager, Operable Unit 3 (Telecon, 01/10/94). A walkover survey was conducted after completing the excavation to ensure that the "build-over criteria" for residual radionuclide activity equivalent to 35 pCi/g for uranium and 10 pCi/g for thorium were met.

A post-excavation sampling program was then conducted to ensure the removal of the most highly contaminated soil. Soil samples were taken from the freshly exposed surface of the excavation. The number of samples and the analytical program for the soil samples are described in the report entitled "Field Procedures--Plant 1 Pad Post-Excavation Sampling" (ASI/IT, 03/16/1992). The excavated area was divided into a grid; each grid was further divided into four quadrants. One composite sample (from samples from each quadrant) from each grid (except Nos. 1 through 6) was then analyzed by the WEMCO on-site laboratory for total uranium and total thorium. In addition, 22 soil samples were selected at random from the grids for an HSL organics analysis; another 22 soil samples were

taken for a full radiological and HSL metals analyses. All samples were sent off site to an RI/FS laboratory for analysis. The sampling grid and locations of the composite samples are shown in Figure D.2-2. Following the sampling program, a new concrete pad was constructed on a gravel base adjoining the old concrete pad. In the following discussions regarding sample locations, "concrete pad" refers to the old concrete pad, and "excavated area" refers to the soil under the "new" concrete pad.

Nature and Extent of Contamination

The extent of contamination in the Plant 1 area is assessed based on a comparison between the concentration/activity of a contaminant in question and its calculated 95th percentile background value (background). The Plant 1 area has been divided into seven subareas, as follows, for discussion of the nature and extent of soil contamination:

- West and northwest of Plant 1 pad
- Plant 1 pad
- Eastern edge of Plant 1 area
- Northern edge of Plant 1 pad
- North of CP storage warehouse
- Northeast of Plant 1 pad
- Construction rubble mound

West and Northwest of Plant 1 Pad

The area west and northwest of the Plant 1 pad consists of the excavated area (west of the Plant 1 pad) as well as the area north of the excavated area and south of the construction rubble mound (northwest of Plant 1 pad). The samples delineating the nature and extent of contamination in these areas consist of those collected for the post-excavation sampling program, certain RI/FS soil borings, and surface soil samples adjacent to the excavated area.

Surface Soil - Soil contamination west of the Plant 1 pad is primarily delineated from the post-excavation sampling program. Total uranium concentrations exceeded background for surface soil in samples from approximately 38 locations, with a range of 4.37 to 655 mg/kg. However, only 14 of these locations correspond to samples whose total uranium concentrations exceeded the "build-over criteria" of 35 pCi/g, and they are located mainly in the northeastern and southwestern sections of the excavated area. Two of the highest total uranium concentrations were 655 and 159 mg/kg detected in samples from grid locations 21 and 59, respectively. Total thorium concentrations exceeded background for surface soil in only six samples, with a range of 18 to 20 mg/kg. Figures D.2-3

and D.2-4 show the distribution of the total uranium and total thorium levels, respectively, in the excavated area.

Among the other radionuclides, only technetium-99 was detected at several locations at activity levels that significantly exceeded its background. The range of activity levels of technetium-99 in these samples was 1.13 to 118 pCi/g. The highest activity of technetium-99 in the entire Plant 1 area was detected in a post-excavation sample at location Plant 1 pad-21D at a level of 118 pCi/g. Strontium-90, with an activity range of 0.59 to 1.8 pCi/g, was the other radionuclide that was detected at activity levels exceeding background.

Several HSL constituents were detected at concentrations that were the highest in the entire Plant 1 area. The following is a summary of those HSL constituents having the highest concentrations along with the locations of these samples:

Constituent	Concentration	Sample Location
Aluminum	20,700 mg/kg	Plant 1 Pad-21D
Barium	174 mg/kg	Same as above
Arsenic	9.2 mg/kg	Plant 1 Pad-52
Antimony	59.8 mg/kg	Plant 1 Pad-86
Calcium	347,000 mg/kg	Same as above
Magnesium	39,500 mg/kg	Same as above
Sodium	294 mg/kg	Same as above
Tetrachloroethene	48,000 μg/kg	Plant 1 Pad-19
Ethylbenzene	660 μg/kg	Same as above
Xylenes, total	2000 μg/kg	Same as above
Bromomethane	720 μg/kg	Same as above
N-Nitrosodiphenylamine	1300 μg/kg	Plant 1 Pad-13
Pyrene	110 μg/kg	Same as above
Di-n-butyl phthalate	38 μg/kg	Plant 1 Pad-7
Phenanthrene	22 μg/kg	Plant 1 Pad-3

The post-excavation sampling data indicate that although the most highly contaminated soil was excavated and removed from the area west of the pad, the residual levels of radionuclides and HSL constituents are still significant.

The surface soil contamination in the area northwest of the Plant 1 pad location of a scrap metal pile, was delineated by samples from P1P60, P1P61, P1P62, and Zone 1-304. Samples from locations with the P1P designation were taken from the top 2 feet of soil at the northern edge of the excavated

area west of the Plant 1 pad and analyzed for a full suite of radiological parameters and a full suite of HSL parameters. Samples taken at Zone 1-304 were analyzed solely for a full suite of radionuclides.

The following table lists the radionuclide parameters detected northwest of the Plant 1 pad, showing the range of concentrations/activities that exceeded background for each parameter, and the location and sample depth at which the maximum concentration/activity was detected:

Parameter	Range of Concentrations/Activities	Location of Maximum Detection/Depth of Sample (ft)
Total Uranium	36-140 mg/kg	Zone 1-304 / 0-0.167
Uranium-234	8.9-41.8 pCi/g	Same as above
Uranium-235/236	0.55-2.70 pCi/g	Same as above
Uranium-238	12-54.7 pCi/g	Same as above
Thorium-228	1.5-13.5 pCi/g	Same as above
Thorium-230	2.3-11.0 pCi/g	P1P60 / 0-0.5
Thorium-232	2.3-12.7 pCi/g	Zone 1-304 / 0-0.167
Radium-228	1.3-14.9 pCi/g	Same as above
Radium-226	2.0 and 2.2 pCi/g	P1P61,P1P60 / 0-0.5

In addition to the above radionuclides, strontium-90 and cesium-137 were also detected in the 0- to 2-inch sample from Zone 1-304.

In addition to radionuclides, the 0- to 0.5-foot samples from P1P60, P1P61, and P1P62 were analyzed for full HSL inorganics and pesticides/PCBs, and the 1.5- to 2.0-foot samples from the same locations were analyzed for full HSL organics. Several metals were detected at one or more of the above locations at concentrations that exceeded background: beryllium, cadmium, calcium, chromium, copper, molybdenum, nickel, silver, sodium, lead, magnesium, and potassium. Limited semivolatile organic compounds (SVOCs) and pesticides/PCBs were also detected in these samples. These include PAHs, bis(2-ethylhexyl) phthalate, diethyl phthalate, phenol, and Aroclor-1254. The concentrations of VOCs were less than detection limits.

Subsurface Soil - The extent uranium and thorium contamination in the subsurface soil in the area west of the Plant 1 pad is characterized by Borings 1337, 1341, and 1347. At the northern edge and center of the excavated area, the total uranium concentrations were generally less than twice background. However, in the northern edge the total uranium concentration was 16 mg/kg, in the 10- to 10.5-foot sample, which exceeded two times background for subsurface soil. At the approximate

center of the excavated area, the total uranium concentrations exceeded background in the 2.0- to 2.5-foot sample and 5.0- to 5.5-foot sample with detection values of 6.9 mg/kg and 4.98 mg/kg, respectively. The total uranium concentration in the 10.0- to 10.5-foot sample was less than background. At the southern edge of the excavated area, the total uranium concentrations exceeded five times background except in the 5.0- to 10.0-foot interval where concentrations were near twice background.

The total thorium concentrations were less than twice background throughout the subsurface except for the 15.0- to 20.0-foot interval in the southern portion of the area where concentrations exceeded two times background.

No inorganic or organic analyses were performed on subsurface samples from west of the Plant 1 pad. No subsurface sampling was performed in the area northeast on the Plant 1 pad.

Conclusions - The main contaminants in the soil west and northwest of the concrete pad in the Plant 1 area were radionuclides, predominantly uranium. The highest concentrations of total uranium were detected in surface soil at the northwest location Zone 1-304 and at two locations in the excavated area. There seem to be two zones of contamination in the soil; the surface soil and the deep subsurface associated with the perched groundwater. The other contaminants in the surface soil were calcium and magnesium, which were detected at concentrations that exceeded their background by several fold. Certain PAHs and phthalates were also detected at several locations.

Plant 1 Pad

The Plant 1 pad was primarily used for drum storage of feed materials. Some drummed K-65 materials were temporarily stored on the pad in the early 1950s. Sampling, crushing and milling, enriched materials and solvent reclamation, and drum washing and straightening was performed in building located in the southwestern portion of the pad. Several surface soil samples as well as subsurface soil samples were collected from beneath the concrete Plant 1 pad.

Surface soil sampling locations are designated by alphanumeric codes with P1P prefixes; soil borings, which consist of both surface and subsurface soil samples, are designated by numerals.

Surface Soil - The following is a summary of radionuclide constituent distribution in the 0- to 1.0-foot soil samples in the Plant 1 pad area. The table lists the ranges of concentrations/activities that exceeded background and the locations of the maximum concentrations/activities:

Constituent	Range of Activities/Concentrations	Location of Maximum Detection
Total uranium	4.36-49.1 mg/kg	P1P10
Uranium-234	1.65-8.89 pCi/g	P1P9
Uranium-235/236	0.29 pCi/g	P1P4
Uranium-238	1.67-9.61 pCi/g	P1P9

Total uranium concentrations and isotopic uranium activities were below background at sample locations P1P5, P1P6, and P1P8.

Samples of surface soil located in the central area of the concrete pad (north of the drum reconditioning building) were analyzed as part of a maintenance program. Samples of soil at a depth of 1.0 foot evidenced uranium at concentrations ranging from 11 to 97 mg/kg.

Total uranium concentrations in the 1.0- to 1.5-foot samples ranged from 7.14 to 75.1 mg/kg, with the maximum at Boring 1343. The activities of uranium-234, uranium-235/236, and radium-238 in the 1.0- to 1.5-foot samples at Borings 1345 and 11101 were as follows:

Location	U-234 Activity (pCi/g)	U-235/236 Activity (pCi/g)	U-238 Activity (pCi/g)
1345	8.3	<0.6	12.2
11101	26.3	value disqualified	value disqualified

Activities of uranium isotopes were not measured in the 1.0- to 1.5-foot samples from any other location.

The total thorium concentrations and isotopic thorium activities for samples from all locations except P1P2 and P1P4 were disqualified by validators. For these two locations, the values detected were below background. The activities of radium isotopes were less than background in the 0- to 1.0-foot samples at all locations except at P1P1, P1P5, and P1P10, where they marginally exceeded background.

The distribution of inorganic analytes in the surface soil at various locations in the Plant 1 pad is summarized in the following table, which shows some of the significant inorganic parameters along with the ranges of concentrations and the locations of the maximum detected concentrations:

Significant Constituent/Range of Concentrations (mg/kg)	Location of Maximum Concentration
Barium: 101-1080	11101
Beryllium: 1.0-2.2	Same as above
Cadmium: 1.0-4.5	Same as above
Calcium: 26,300-132,000	Same as above
Lead: 32-53.5	Same as above
Magnesium: 5,870-35,600	Same as above
Sodium: 98.1-316	1346

Chromium, cobalt, copper, mercury, molybdenum, and nickel were detected sporadically in the 0- to 1.5-foot samples:

The distribution of HSL organic contamination in the surface soil is summarized in the following table, which shows the results of the analyses with locations and concentrations of the most significant detections:

Sampling Location	Sampling Depth: 0 to 1.5 feet
P1P4	VOCs: marginally greater than D.L.
P1P6	SVOCs: Phthalate = 60 μg/kg
P1P7	SVOCs: PAHs = 67 μg/kg, TBP = 46 μg/kg
1346	VOCs: marginally greater than D.L.

Notes: PAHs Polynuclear aromatic hydrocarbons
TBP Tributyl phosphate
DL Detection limit

Subsurface Soil - The following table summarizes radionuclide constituent distribution in soil samples from the 2.0- to 3.0-foot depth interval in the Plant 1 pad area. The table lists the ranges of concentrations/activities that exceeded background and the locations of the maximum concentrations/activities:

Constituent	Range of Activities/Concentrations	Location of Maximum Detection
Total Uranium	3.99-53.9 mg/kg	P1P1
Uranium-234	1.41-13.6 pCi/g	P1P10
Uranium-235/236	0.36-0.5 pCi/g	P1P1
Uranium-238	1.25-16.6 pCi/g	P1P10

The activities of uranium-234 and uranium-235/236 in the 2.0- to 3.0-foot sample depths were less than background at a vast majority of locations.

The following table presents the general trend in the variation of total uranium concentrations in the subsurface soil by depth. The table summarizes total uranium data from selected soil borings in the Plant 1 pad area:

Sample Depth	Total Uranium Concentration (mg/kg) by Boring				
Interval (ft)	1339	1343	1361	1353	1360
2.0 - 3.5	<3.1	< Bkgd	49.4	3.97	22
5.0 - 5.5	6.57	< Bkgd	6.75	< Bkgd	36
10.0 - 11.0	< Bkgd	< Bkgd	< Bkgd	6.77	<11.0
14.5 - 15.5	NA	NA	< Bkgd	3.95	<23

Bkgd: Background: 3.69 μg/g for total uranium in subsurface soil (>1.5 ft)
NA: Not analyzed

The maximum total thorium concentration in samples from 2.0- to 3.0-foot depths was at P1P1, at a concentration of 50.2 mg/kg. The activities of thorium-228 and thorium-232 in the 2.0- to 3.0-foot sample at P1P1 were 1.44 pCi/g and 5.56 pCi/g. The total thorium concentrations and activities of thorium radionuclides at all other locations were either less than background or the data was disqualified by validators. At Boring 1360 the concentrations of total thorium were equal to or less than detection limits in the subsurface samples to a depth of 11.0 feet.

Radium-228 activity in samples at the 2.0- to 3.0-foot depth exceeded background at three locations, with a maximum of 8.62 at P1P1. Radium-226 activities in samples from 2.0- to 3.0-foot depths were less than background at all other locations.

The variation of the concentrations of inorganics in the subsurface soil with depth cannot be readily determined because of a lack of data for the deeper subsurface soil at any location other than

Boring 11101. At Boring 11101, the following metals were detected at concentrations exceeding background at the stated depth intervals:

- Beryllium: 1.5-13.0 ft except at 6.0-6.5 ft
- Cadmium: 2.5-13.0 ft
- Zinc: 6.0-13.0 ft

Barium, nickel, cobalt, and copper were present at concentrations that exceeded background in samples taken from the 6.0- to 6.5-foot depth interval only.

The distribution of HSL organic contamination in the 1.5- to 3.0-foot depth of soil is summarized in the following table, which shows the results of the analyses with the location and the concentrations of the most significant detections:

Sampling Location	Sampling Depth: 1.5 to 3.0 feet
11101	VOCs: Acetone: 59 μg/kg
P1P4	SVOCs: PAHs = 52-470 μg/kg
P1P11	SVOCs: Nitrophenol = 110 μg/kg, Phthalates = 48-140 μg/kg
P1P7	SVOCs: 4-Nitrophenol = 94 μg/kg
1345	SVOCs: Nitroaniline = 2400 μg/kg, NNDPA = 72 μg/kg
1346	VOCs: marginally greater than D.L.

Notes: PAHs Polynuclear aromatic hydrocarbons
NNDPA N-Nitroso-diphenylamine
DL Detection limit

Acetone and methylene chloride, were consistently detected at low concentrations in the subsurface soil at Boring 11101. Bis(2-ethylhexyl)phthalate was detected at a concentration of 94 μg/kg in the sample taken from the 9.0- to 9.5-foot depth interval at this location. These are common laboratory contaminants.

Conclusions - The concentrations of uranium and activities of uranium isotopes exceeded background at several locations in the surface and subsurface soil under Plant 1 pad. The concentrations/activities were, in general, lower than those found in samples from the excavated area west of the pad. However, the variation in these concentrations with depth seemed to be similar to that of the exavated area, with an upper layer of contamination extending to approximately 5.0 feet, and then a deeper layer of contamination associated with the perched groundwater. The concentrations of inorganics

were also above background at several locations in the 0- to 3.0-foot depth and at least one location, the only one sampled, in deeper soil. Although several organics were also detected at several locations, the most significant concentrations were detected at the center of the Plant 1 pad and in the vicinity of Plant 1. The detections of VOCs in the deeper subsurface samples at Boring 11101 might be associated with the perched groundwater in the Plant 2/3 area, which is immediately south of that location.

Eastern Edge of Plant 1 Area

Several surface and subsurface soil samples were taken in the eastern edge of Plant 1 area along "B" street. Samples at Zones 1-184, 1-213, 1-243 and 1-299 were taken from the 0- to 0.5-foot depth and analyzed for a full suite of radionuclides. Samples from Borings 1303, 1305, 1336, 1340, 1344, 1350, and 1355 were taken from various depth intervals and were analyzed for total uranium and total thorium. Samples from Boring 2055 were analyzed for a full suite of radionuclides.

Surface Soil - The following table summarizes analytical results from samples taken at the 0- to 1.5-foot depth interval. The table lists the ranges of concentrations/activities of radionuclides that were detected at levels that exceeded background as well as the locations of the maximum concentrations/activities:

Parameter	Range of Activities/Concentrations	Location of Maximum Detection
Total Uranium	9.8-98 mg/kg	Boring 1340
Uranium-234	17.0-38.4 pCi/g	Zone 1-243
Uranium-235/236	1.0-2.6 pCi/g	Zone 1-243
Uranium-238	17.9-42.2 pCi/g	Zone 1-243

Total thorium concentrations were measured in the 0- to 1.5-foot sampling depth interval at most of the boring locations and were found to be less than two times background at Borings 1336, 1355, and 1344, and less than background at Boring 1305. Among thorium isotopes, only thorium-228 was detected at concentrations that exceeded background of 1.47 pCi/g, with a range of 1.5 to 4.5 pCi/g; the maximum concentration was detected at Zone 1-213.

No analyses were made for inorganic or organic parameters.

Subsurface Soil - The concentrations of total uranium were above background a depths of 1.5 to 3.5 feet at Borings 1340, 1344, 1350, and 1355. No analyses were made for organic or inorganic constituents, and samples below 3.5 feet were not analyzed for any parameters.

Conclusions - Concentrations of uranium typically exceeded background in the soil in the eastern edge of the Plant 1 area. The extent of the contamination was shallow toward the north and deeper toward the south. The extent of thorium contamination was relatively insignificant.

Northern Edge of Plant 1 Pad

Four locations were sampled at the northern edge of Plant 1 area. The soil samples were analyzed for radionuclides at all locations and for the full HSL at Boring 11194.

Surface Soil - The following table summarizes radionuclide activities/concentrations in samples from the 0- to 1.5-foot depth interval and shows the ranges of activities/concentrations and the locations of the maximum concentration that was detected:

Parameter	Ranges of Activities/Concentrations	Location of Maximum Detection
Total Uranium	60.6-6140 mg/kg	Zone 1-273
Uranium-234	14.3-3857 pCi/g	Same as above
Uranium-235/236	1.2-204 pCi/g	Same as above
Uranium-238	16.9-4108 pCi/g	Same as above
Total Thorium*	38.8*-286.4* mg/kg	Same as above
Radium-226	1.53-2720 pCi/g	Same as above

* Total thorium concentration was calculated from individual isotopic activities.

The highest concentrations/activities of most of the uranium, thorium, and radium isotopes in the samples from the 0-to 1.5-foot sampling intervals for the entire Plant 1 area, were found at Zone 1-273, as summarized below:

Parameter	Concentration/Activity by Sample Depth (ft) 0-0.5	0.5-1.0	1.0-1.5
Total Uranium	12337*	**6140** μg/g	**1050** μg/g
Uranium-234	**3857** pCi/g	**758** pCi/g	**211** pCi/g
Uranium-235/236	**204** pCi/g	16.4 pCi/g	**22.1** pCi/g
Uranium-238	**4108** pCi/g	**1651** pCi/g	**276** pCi/g
Thorium-228	6.4 pCi/g	**19.5** pCi/g	1.2 pCi/g
Thorium-230	**2729** pCi/g	**2749** pCi/g	**272** pCi/g
Thorium-232	**31.4** pCi/g	**18.8** pCi/g	2.5 pCi/g
Radium-226	**2720** pCi/g	**2630** pCi/g	**383** pCi/g

Note: The values highlighted in the above table were the highest concentrations in the Plant 1 Area.
*This value was calculated from individual uranium isotopic activities.

At Zone 1-273, radium-228 was detected at a concentration of 56.2 pCi/g and strontium-90 at a concentration of 3.1 pCi/g in the 0- to 0.5-foot samples. Although the concentrations/activities of radionuclides in the samples at Zone 1-273 were the highest recorded in the Plant 1 area, the concentrations/activities of the same radionuclides in similar sample depths at Boring 11194, which is located approximately 25 feet away from Zone 1-273, were not significantly elevated. Thus the contamination at Zone 1-273 seems to be localized in horizontal extent.

Analysis of HSL constituents was limited to samples from Boring 11194. Among the HSL constituents in samples from 0-to 1.5-foot depths, a limited number of metals, SVOCs, and pesticides/PCBs were detected at significant concentrations. Most notably, barium at 183 mg/kg, cadmium at 2.5 mg/kg, calcium at 23,400 mg/kg, magnesium at 10,700 mg/kg, and zinc at 502 mg/kg were detected at concentrations that exceeded two times background. Aroclor-1254 was detected at a concentration of 160 μg/kg, and PAHs were detected at 33-58 μg/kg.

Subsurface Soil - Total uranium concentrations in subsurface soil were generally greater than background. Total uranium concentrations varied from 121 to 8 mg/kg and decreased with depth.

In the deeper samples, beryllium, cadmium, calcium, potassium, and zinc were detected at concentrations that exceeded background. In particular, the concentration of zinc in the 4.5- to 5.0-foot sample was 780 mg/kg, which exceeds background by a factor of 9.5.

North of CP Storage Warehouse

Two surface soil sampling locations (Zones 1-297 and -298) were sampled and one soil boring (Boring 1335) was drilled and sampled in the area north of the warehouse located at the northern end Plant 1 pad to characterize radionuclide contamination only.

The total uranium concentrations in the 0- to 0.5-foot samples at all locations were above five times background with a range of 25 to 963 mg/kg. The maximum was calculated from the individual uranium isotopic activities from the sample at Zone 1-297. The activities of uranium-234, uranium-235/236, and uranium-238 at this location were 306 pCi/g, 7.3 pCi/g, and 322 pCi/g, respectively. The total uranium concentrations in samples from the 0.5- to 1.0-foot and 1.0- to 1.5-foot depths at Zone 1-297 also exceeded background, with maximum measurements of 149 mg/kg and 127 mg/kg, respectively. The activities of uranium isotopes exceeded background in samples from all depth intervals. The activities of thorium isotopes exceeded background only in the 0- to 0.5-foot sample.

No subsurface samples were recovered or analyzed.

Northeast of Plant 1 Pad

Three surface locations (Zones 1-321, -348, and -345) were sampled, and one soil boring (1331) was drilled and sampled in the area northeast of the Plant 1 pad to characterize radionuclide contamination in this area.

The range of total uranium concentrations in samples from the 0- to 0.5-foot depths was 20 to 2524 mg/kg. The highest concentration was calculated from isotopic activities at Zone 1-321. The total thorium concentration using individual isotopic activities at Zone 1-321 was 243.5 mg/kg, a level which significantly exceeds background (12.4 mg/kg). The concentrations of total thorium in the 0- to 0.5-foot samples at the other locations were less than background.

The concentrations of total uranium in the subsurface samples at Boring 1331 to depths of 15.5 feet were generally less than twice background.

Construction Rubble Mound Area

Sample locations, Zone 1-340, Zone 1-342, 1333, 1334, and 1416 characterize radionuclide contamination in the native soil at the construction rubble mound area.

Total uranium values that exceeded background ranged from 35 mg/kg to 118 mg/kg, with the maximum value at Zone 1-342. The activities of uranium-234, uranium-235/236, and uranium-238 in the 0- to 0.5-foot sample interval ranged from 15.8 to 45 pCi/g, 0.8 to 1.9 pCi/g, and 16.4 to 46.7 pCi/g, respectively. The total thorium concentrations were less than twice background in the surface soil. The activities of radium isotopes were less than background in the 0- to 0.5-foot samples at Zones 1-340 and 1-342.

The total uranium concentrations in the subsurface were above background, with values of 11 mg/kg in the 5.0- to 5.5-foot sample and 20 mg/kg in the 10- to 10.5-foot sample at Borings 1333. Total thorium concentrations were less than twice background in the subsurface soil.

Vertical Distribution of Contaminants

The following is a summary of the vertical distribution of contaminants in the Plant 1 area. Table D.2-1 presents a visual summary of the distribution of contaminants with respect to background by depth interval.

The following uranium constituents were detected at concentrations/activities at levels that exceeded five times background in the sampling depths as stated:

- Total uranium: 0-20 ft
- Uranium-238 and uranium-234: 0-1.5 ft, 1.5-3.0 ft and 5.0-10.0 ft
- Uranium-235/236: 0-1.5 ft

Uranium-235/236 was detected at lower activity levels, although at levels that were two to five times background in the subsurface.

Thorium-228, -230, and -232 and total thorium activities/concentrations typically exceed five times background throughout the surface soil. Activities of thorium isotopes did not consistently exceed background in the subsurface soil. The concentrations of total thorium exceeded background in all samples to the 20.0-foot depth. The other radionuclides that were detected at activity levels that

exceeded background by a factor of at least five were radium-226 from 0 to 1.5 feet and radium-229, strontium, and cesium-137 from 0 to 0.5 foot.

Among HSL constituents, the predominant inorganics were cadmium, calcium, magnesium, sodium, and zinc. They were detected at concentrations that exceeded five times background in the surface soil. Concentrations of beryllium and zinc exceeded background by factors of one to five times or more in almost all samples in the subsurface soil. Similarly, concentrations of cadmium exceeded background by factors of one to five or more in all samples to a depth of 15 feet. Cadmium was not detected in the 15.0- to 20.0-foot depth.

In general, most of the inorganic constituents except beryllium, cadmium, calcium, potassium, and zinc (detected throughout the surface and subsurface) were detected at concentrations that exceeded background in two zones of soil depth ranges: namely the 0- to 3.0-foot depth and the 5.0- to 10.0-foot depth. The presence of a majority of inorganic constituents in the subsurface soil at the Plant 1 area might be attributed to the perched groundwater, which occurs at the 6.0- to 10.0-foot depth, rather than the contaminated vadose zone soil.

VOCs and SVOCs were detected in the 0- to 1.0-foot samples. More VOC and SVOC detections occurred in the 1.5- to 3.0-foot samples. In general, most VOCs and SVOCs were not detected at sample depths below 5.0 feet. Pesticides and PCBs were detected only in the 0- to 0.5-foot samples.

Conclusion

The predominant contaminant in the soil in the Plant 1 area was uranium. There appear to be certain localized areas where uranium concentrations exceed maximum background levels significantly. Thorium data were too limited to draw any general conclusions regarding the distribution of thorium over the entire area; however, the available concentrations/activity levels were less than those of uranium. The variation in concentration of radionuclides with depth indicates two zones of contamination: (1) an upper, surface soil zone and (2) a deeper, subsurface soil zone in contact with perched groundwater.

Several HSL constituents were also detected in the soil. Inorganics were the most prevalent. Calcium and magnesium were found at concentrations that most significantly exceeded background throughout the surface and subsurface soils. Certain semivolatile organics were detected at

concentrations that significantly exceeded detection limits, but the distribution was restricted to a few locations. The concentrations of several HSL constituents were significantly high in the excavated area west of Plant 1 pad.

Potential sources of contamination include the uranium feed materials handled at Plant 1 and solvents used in cleaning of drums.

TABLE D.2-1
PLANT 1 AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4	1.25	1.43	NA	NA	NA	0.424	ND	NA	0.711
0 - 0.5	48	■	■	■	■	■	■	■	■	■	■	-	-	-	■	X	-	■
0.5 - 1	6	■	■	■	■	■	■	■	■	●	■	-	-	-	●	X	-	-
1 - 1.5	8	■	■	■	■	■	■	▒	▒	▒	▒	-	-	-	●	X	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.39	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	15	■	■	■	●	○	●	●	●	■	●	-	-	-	■	X	-	-
3 - 5	4	□	■	□	○			○	●	○	○							
5 - 10	6	■	■	■	○	○	●	○	●	-	○							
10 - 15	5	●	■	●	○	○	-	○	●	-	○							
15 - 20	5	●	■	●	○	○	-	○	●	○	○							

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	28	●	X	●	●	▒	■	■	■	●	▒	▒	●	▒	■	○	■	X	▒	▒	●	▒	X	■	○	●	■
0.5 - 1	15	●		●	●	●	□	■	●	▒	●	●	●	○	■	●	-	X	○	●	○	○	X	■	○	●	○
1 - 1.5	4	●	-	●	●	▒	▒	■	●	●	●	-	●	●	■	○	▒	-	●	●	-	○	X	■	○	●	■
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	18	●	-	●	●	▒	■	●	●	●	●	-	●	●	●	●	-	▒	●	●	-	○	X	▒	●	●	▒
3 - 5	1	○	-	○	○	●	●	●	○	○	-	-	○	○	○	○	-	-	-	●	-	-	-	-	○	○	■
5 - 10	2	○		●	▒	●	●	●	○	●	●	-	●	●	○	●	-	-	●	●	X		-	○	-	○	●
10 - 15	1	○	-	○	○	●	●	○	○	○	-	-	○	○	○	○	-	-	-	●	-	○	-	-	-	○	●
15 - 20	1	○	-	○	○	■	-	●	○	○	-	-	○	●	○	○	-	-	-	○	-	-	-	-	-	○	●

ND - Not detected in background study.

NA - Not analyzed in background study.

□ "Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

000020

TABLE D.2-1
(Continued)

Depth Interval, Feet	Number of Samples	1,1,1-Trichloroethane	1,2-Dichloroethene (total)	2-Butanone	Acetone	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroform	Ethylbenzene	Methylene chloride	Styrene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
Surface Soil:																
0 - 0.5	22	X	-	-	-	X	-	-	-	X	X	X	X	X	X	-
0.5 - 1	15	X		X										X		
1 - 1.5	4	-	-	-	-	-	-	-	X	-	X	-	-	-	-	X
Subsurface Soil:																
1.5 - 3	39	X	X	X	X	-	X	X	-	X	X	X	X	X	-	X
3 - 5	1	-	-		X	-	-	-	-	-	X	-	-	-	-	-
5 - 10	2	-	-		-	-	-	-	-	-	X	-	-	-	-	-
10 - 15	1	-	-	-	X	-	-	-	-	-	X	-	-	-	-	-
15 - 20	1	-	-		-	-	-	-	-	-	X	-	X	-	-	-

Depth Interval, Feet	Number of Samples	2-Chlorophenol	2-Methylnaphthalene	2-Nitroaniline	4-Chloro-3-methylphenol	4-Nitrophenol	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene	Di-n-butyl phthalate	Di-n-octyl phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	N-Nitrodiphenylamine	Naphthalene	Phenanthrene	Phenol	Tributyl phosphate
Surface Soil:																															
0 - 0.5	22	-	-	-	-	-	-	X	-	-	X	-	X	-	-	-	-	X	-	-	-	-	-	X	-	-	X	-	X	-	
0.5 - 1	15	-	-	-	-	-	-	-	-	X	-	-	-	X	X	X	-	X	-	-	-	X	-	-	-	-	-	-	-	X	X
1 - 1.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subsurface Soil:																															
1.5 - 3	39	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-
3 - 5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5 - 10	2	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 - 15	0																														
15 - 20	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

[ ] "Blank" - Compound was not analyzed.

[-] Analyzed and not detected.

[X] Detection where background level not recorded.

TABLE D.2-1
(Continued)

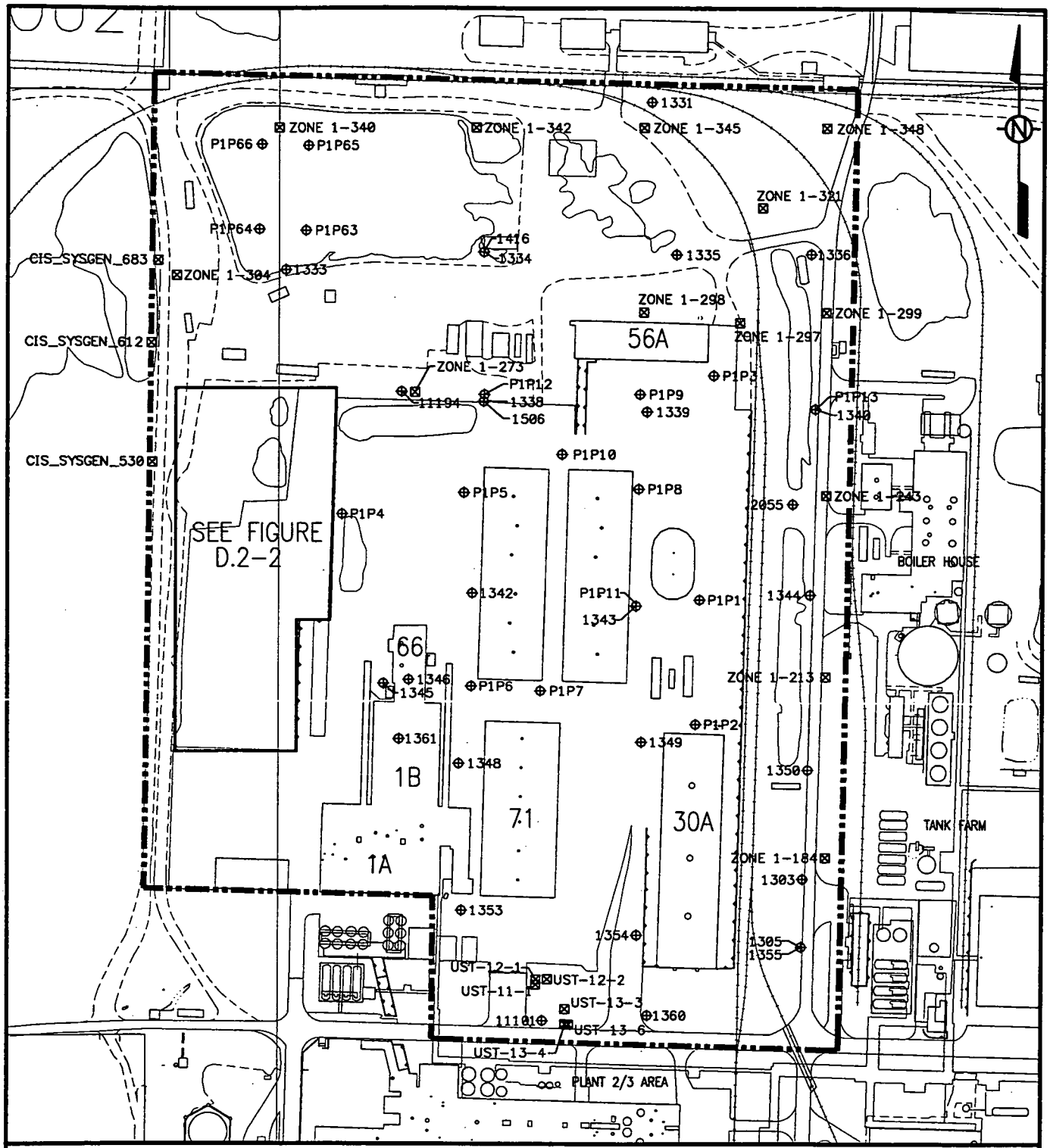
	PESTICIDES /PCBs(ug/kg)										
Depth Interval, Feet	Number of Samples	Aroclor-1254	4,4'- DDT	Aldrin	Alpha chlordane	Dieldrin	Endosulfan II	Endosulfan sulfate	Endrin	Heptachlor epoxide	Methoxychlor
Surface Soil:											
0 - 0.5	28	X	X	X	X	X	X	X	X	X	X
0.5 - 1	15	X	-	-	-	-	-	-	-	-	-
1 - 1.5	4	-	-	-	-	-	-	-	-	-	-
Subsurface Soil:											
1.5 - 3	18	X	-	-	-	-	-	-	-	-	-
3 - 5	1	-	-	-	-	-	-	-	-	-	-
5 - 10	2	-	-	-	-	-	-	-	-	-	-
10 - 15	0										
15 - 20	1	-	-	-	-	-	-	-	-	-	X

[ ] "Blank" - Compound was not analyzed.

[-] Analyzed and not detected.

[X] Detection where background level not recorded.

000022



LEGEND:

1A	FACILITY DESIGNATION
⊠ZONE	SURFACE SOIL SAMPLING LOCATION
⊕1348	SOIL BORING LOCATION
▬▬▬	BOUNDARY OF AREA OF INTEREST

SCALE

0 200 400 FEET

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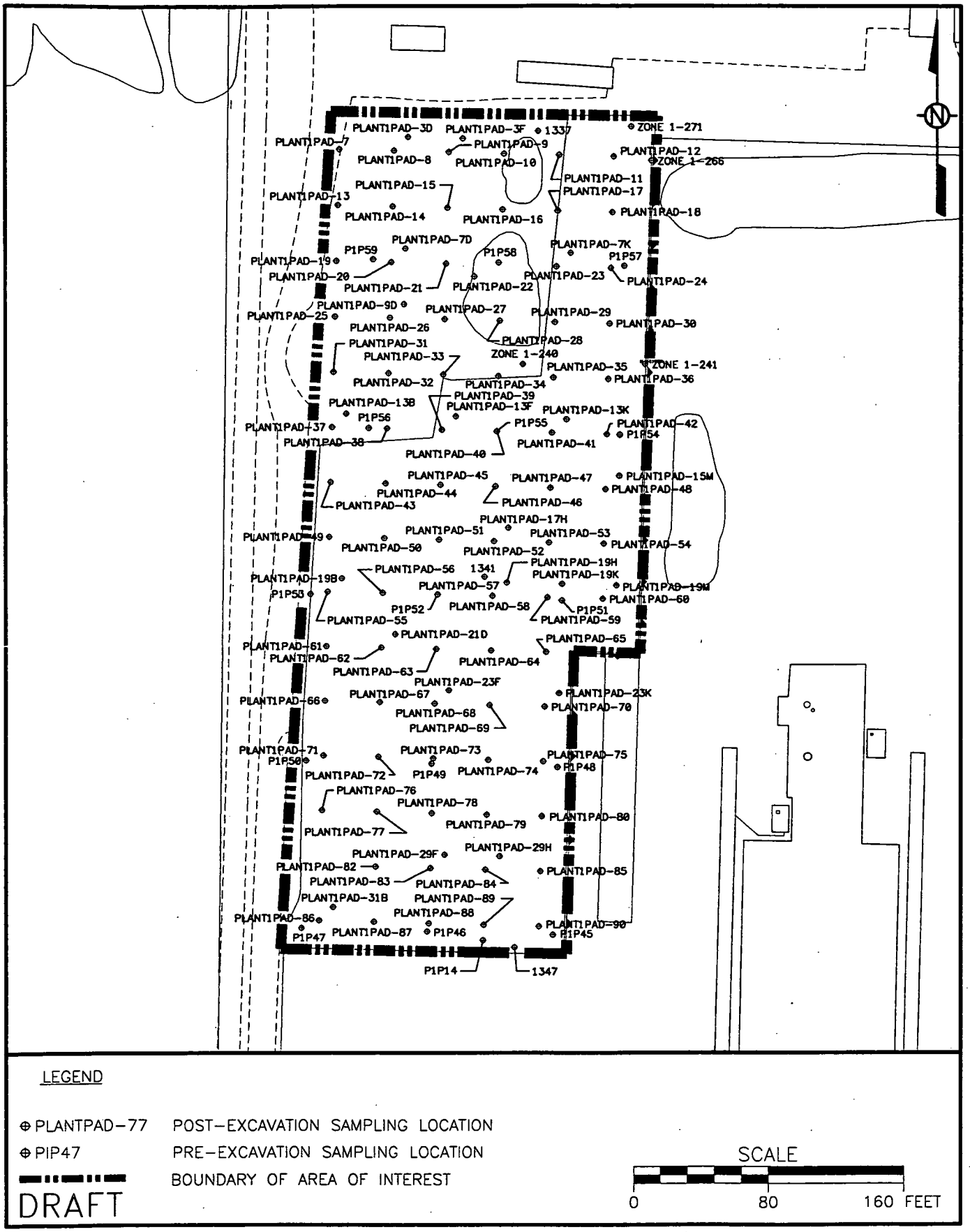
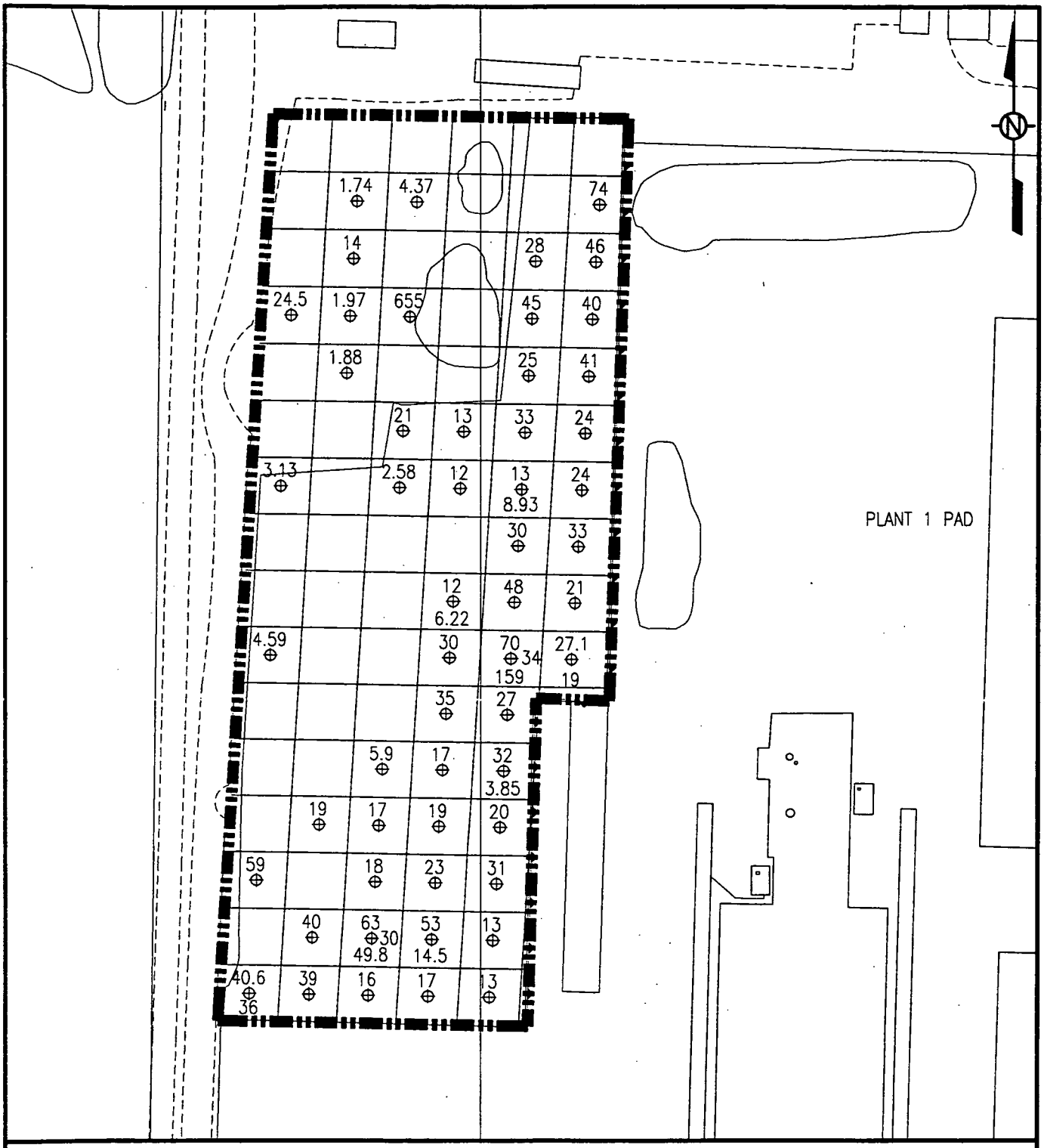
FIGURE D.2-1. PLANT 1 AREA



ACAD: W:\DATA\CADD\4P94\94051003.DWG 6/10/94 JAK STATE PLANAR COORDINATE SYSTEM 1927

FIGURE D.2-2. SAMPLING LOCATIONS WEST OF PLANT 1 PAD PRE- & POST- EXCAVATION



LEGEND :

⊕ 36 SOIL BORING LOCATION WITH TOTAL URANIUM CONCENTRATION; mg/kg

BOUNDARY OF AREA OF INTEREST

NOTE:

1. SAMPLE LOCATION IS SHOWN AT CENTER OF EACH EACH SQUARE OF GRID.

SCALE

0 80 160 FEET

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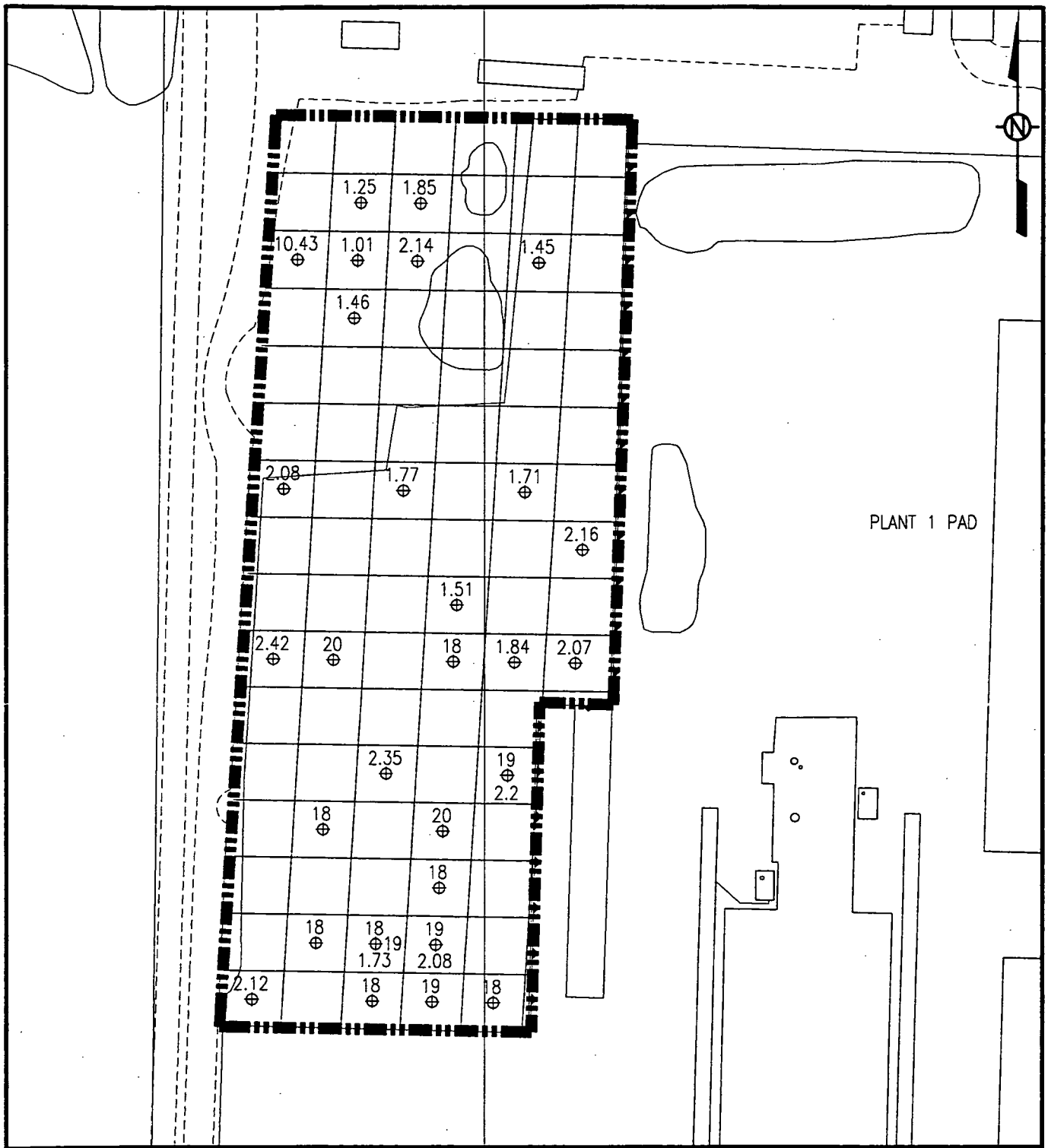
FIGURE D.2-3. POST EXCAVATION TOTAL URANIUM CONCENTRATIONS WEST OF PLANT 1 PAD



LEGEND

⊕ 18 SOIL BORING LOCATION WITH TOTAL THORIUM CONCENTRATION, mg/kg

BOUNDARY OF AREA OF INTEREST

NOTE:

1. SAMPLE LOCATION IS SHOWN AT CENTER OF EACH EACH SQUARE OF GRID.

SCALE

0 80 160 FEET

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ACAD: W:\DATA\CADD\4P94\94051004.DWG 6/10/94 MLS STATE PLANAR COORDIATE SYSTEM 1927

FIGURE D.2-4. POST EXCAVATION TOTAL THORIUM CONCENTRATIONS WEST OF PLANT 1 PAD

Plant 1 Area

Summary Soil Statistics

AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	43/44	0	42/44	0.900-4108.000	143.36	12.100	12.100	1.24
URANIUM, TOTAL	MG/KG	106/148	0	101/148	1.740-12336.909	199.44	11.000	11.000	3.73
URANIUM-234	PCI/G	41/41	0	40/41	0.770-3857.000	139.48	10.000	12.000	1.24
THORIUM-230	PCI/G	41/42	0	24/42	1.100-2729.000	70.40	0.900	0.900	1.97
RADIUM-226	PCI/G	30/31	0	8/31	0.420-2720.000	92.65	0.250	0.250	1.42
URANIUM-235/236	PCI/G	33/41	0	30/41	0.110-204.000	9.25	0.100	0.600	0.156
THORIUM-232	PCI/G	42/45	0	11/45	0.600-31.400	3.09	0.600	0.700	1.36
THORIUM, TOTAL	MG/KG	63/148	0	25/148	1.010-286.504	21.03	5.472	23.000	12.4
RADIUM-228	PCI/G	38/43	0	13/43	0.525-56.200	4.73	0.500	0.670	1.25
THORIUM-228	PCI/G	40/42	0	12/42	0.600-31.200	2.68	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/19	0	0/19			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	0/33	0	0/33			0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/33	0	0/33			0.200	0.600	NA
STRONTIUM-90	PCI/G	10/31	0	10/31	0.590-3.100	1.26	0.500	1.400	0.424
TECHNETIUM-99	PCI/G	9/24	0	9/24	1.100-118.200	24.54	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/20	0	0/20			1.000	22.900	NA
CESIUM-137	PCI/G	14/22	0	1/22	0.300-4.260	0.71	0.200	2.600	0.711
GROSS ALPHA	PCI/G	20/20	0	20/20	12.000-299.000	40.49	10.000	12.000	
GROSS BETA	PCI/G	20/20	0	20/20	19.000-346.000	52.87	10.000	12.000	
URANIUM-236	PCI/G	7/7	0	6/7	0.062-0.700	0.25	10.000	12.000	0.088

05/24/94

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159699

AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	20/20	0	16/20	0.830-1651.000	120.29	11.000	13.000	1.24
URANIUM, TOTAL	MG/KG	22/22	0	18/22	2.200-6140.000	367.99	11.000	13.000	3.73
URANIUM-234	PCI/G	20/20	0	15/20	0.810-758.000	73.32	11.000	13.000	1.24
THORIUM-230	PCI/G	9/9	0	6/9	1.400-2749.000	308.76	11.000	13.000	1.97
RADIUM-226	PCI/G	21/21	0	4/21	0.690-2630.000	126.37	11.000	13.000	1.42
URANIUM-235/236	PCI/G	10/20	0	9/20	0.130-25.100	4.67	0.100	0.600	0.156
THORIUM-232	PCI/G	8/9	0	2/9	0.600-18.800	3.58	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	9/10	0	3/10	5.472-171.595	30.10	8.770	8.770	12.4
RADIUM-228	PCI/G	19/21	0	5/21	0.600-6.300	1.35	0.500	13.100	1.25
THORIUM-228	PCI/G	9/9	0	2/9	0.600-19.500	3.40	11.000	13.000	1.43
NEPTUNIUM-237	PCI/G	0/23	0	0/23			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	0/21	0	0/21			0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/21	0	0/21			0.200	0.600	NA
STRONTIUM-90	PCI/G	4/21	0	4/21	0.856-2.220	1.61	0.500	1.220	0.424
TECHNETIUM-99	PCI/G	2/21	0	2/21	2.320-6.400	4.36	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/21	0	0/21			1.000	34.000	NA
CESIUM-137	PCI/G	0/21	0	0/21			0.200	2.800	0.711
GROSS ALPHA	PCI/G	15/15	0	15/15	11.100-56.500	28.17	11.000	13.000	
GROSS BETA	PCI/G	15/15	0	15/15	20.100-48.200	29.86	11.000	13.000	

05/24/94

AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	7/7	0	7/7	4.800-276.000	70.31	6.000	13.000	1.24
URANIUM, TOTAL	MG/KG	17/17	0	17/17	7.140-1050.000	133.19	6.000	13.000	3.73
URANIUM-234	PCI/G	7/7	0	7/7	4.700-211.000	59.39	6.000	13.000	1.24
THORIUM-230	PCI/G	8/8	0	3/8	0.800-272.000	35.80	6.000	13.000	1.97
RADIUM-226	PCI/G	7/8	0	2/8	0.600-383.000	55.57	0.250	0.250	1.42
URANIUM-235/236	PCI/G	4/7	0	4/7	0.200-22.100	7.48	0.600	0.600	0.156
THORIUM-232	PCI/G	6/8	0	2/8	0.400-5.000	1.80	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	10/11	0	2/11	3.648-45.601	12.40	23.000	23.000	12.4
RADIUM-228	PCI/G	7/9	0	2/9	0.600-7.700	1.84	0.500	5.000	1.25
THORIUM-228	PCI/G	7/8	0	1/8	0.400-6.000	1.56	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/6	0	0/6			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/7	0	0/7			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/7	0	0/7			0.600	0.600	NA
STRONTIUM-90	PCI/G	3/7	0	3/7	0.600-1.400	0.91	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/7	0	1/7	6.600-6.600	6.60	1.000	1.200	NA
RUTHENIUM-106	PCI/G	0/7	0	0/7			1.000	11.700	NA
CESIUM-137	PCI/G	0/7	0	0/7			0.200	1.000	0.711

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	15/15	0	10/15	0.760-16.100	2.97	5.000	13.000	1.12
URANIUM, TOTAL	MG/KG	24/29	0	19/29	1.110-121.000	16.31	3.120	11.000	3.69
URANIUM-234	PCI/G	15/15	0	11/15	0.760-10.300	2.34	5.000	13.000	1.04
THORIUM-230	PCI/G	8/8	0	1/8	0.800-2.590	1.47	5.000	13.000	1.91
RADIUM-226	PCI/G	15/16	0	0/16	0.300-1.450	0.99	0.300	0.300	1.47
URANIUM-235/236	PCI/G	4/15	0	3/15	0.120-0.500	0.31	0.100	0.600	0.150
THORIUM-232	PCI/G	8/8	0	1/8	0.500-5.560	1.51	5.000	13.000	1.26
THORIUM, TOTAL	MG/KG	8/15	0	1/15	4.560-50.200	13.82	2.790	23.000	11.1
RADIUM-228	PCI/G	14/17	0	3/17	0.630-8.620	1.92	0.500	0.500	1.31
THORIUM-228	PCI/G	8/8	0	1/8	0.600-1.440	0.97	5.000	13.000	1.38
NEPTUNIUM-237	PCI/G	0/14	0	0/14			0.200	0.500	NA
PLUTONIUM-239/240	PCI/G	0/12	12	0/12			0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/12	12	0/12			0.200	0.600	NA
STRONTIUM-90	PCI/G	2/15	0	2/15	0.800-3.340	2.07	0.500	2.000	.436
TECHNETIUM-99	PCI/G	1/15	0	1/15	1.400-1.400	1.40	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/15	0	0/15			1.000	1.000	NA
CESIUM-137	PCI/G	0/15	0	0/15			0.200	0.200	NA
GROSS ALPHA	PCI/G	13/14	0	13/14	13.000-1054.000	100.79	10.000	10.000	
GROSS BETA	PCI/G	14/14	0	14/14	17.100-59.700	30.16	5.000	13.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	9/12	0	8/12	2.100-91.000	29.43	11.000	11.000	3.69
THORIUM-230	PCI/G	1/1	1	0/1	0.800-0.800	0.80	11.000	11.000	1.91
THORIUM-232	PCI/G	1/1	1	0/1	0.600-0.600	0.60	11.000	11.000	1.26
THORIUM, TOTAL	MG/KG	3/10	0	1/10	5.472-23.000	11.72	4.050	23.000	11.1
RADIUM-228	PCI/G	1/1	1	0/1	0.700-0.700	0.70	11.000	11.000	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.600-0.600	0.60	11.000	11.000	1.38

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5699

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	2/2	2	1/2	0.700-9.600	5.15	11.000	12.000	1.12
URANIUM, TOTAL	MG/KG	13/23	0	9/23	2.300-73.000	16.05	11.000	11.000	3.69
URANIUM-234	PCI/G	2/2	2	1/2	0.600-9.000	4.80	11.000	12.000	1.04
THORIUM-230	PCI/G	2/2	2	0/2	0.400-1.000	0.70	11.000	12.000	1.91
RADIUM-226	PCI/G	2/2	2	0/2	0.700-1.100	0.90	11.000	12.000	1.47
URANIUM-235/236	PCI/G	1/2	2	1/2	0.700-0.700	0.70	0.100	0.100	0.150
THORIUM-232	PCI/G	2/2	2	0/2	0.600-0.900	0.75	11.000	12.000	1.26
THORIUM, TOTAL	MG/KG	6/19	0	2/19	4.230-23.000	10.27	3.400	23.000	11.1
RADIUM-228	PCI/G	0/2	2	0/2			0.500	0.500	1.31
THORIUM-228	PCI/G	2/2	2	0/2	0.300-0.500	0.40	11.000	12.000	1.38

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	1.400-1.400	1.40	11.000	11.000	1.12
URANIUM, TOTAL	MG/KG	14/24	0	8/24	2.340-22.000	7.96	4.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	1.400-1.400	1.40	11.000	11.000	1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.900-0.900	0.90	11.000	11.000	1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.000-1.000	1.00	11.000	11.000	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.600-0.600	0.60	11.000	11.000	1.26
THORIUM, TOTAL	MG/KG	6/19	0	1/19	3.900-21.700	8.83	23.000	23.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.700-0.700	0.70	11.000	11.000	1.38

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	1.400-1.400	1.40	11.000	11.000	1.12
URANIUM, TOTAL	MG/KG	9/17	0	8/17	2.900-68.000	13.84	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	1.600-1.600	1.60	11.000	11.000	1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.600-0.600	0.60	11.000	11.000	1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.600-0.600	0.60	11.000	11.000	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.500-0.500	0.50	11.000	11.000	1.26
THORIUM, TOTAL	MG/KG	6/20	0	1/20	4.510-25.000	9.51	2.880	23.000	11.1
RADIUM-228	PCI/G	1/1	1	0/1	0.600-0.600	0.60	11.000	11.000	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.600-0.600	0.60	11.000	11.000	1.38

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	1/2	2	0/2	0.900-0.900	0.90	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	0/1	1	0/1			3.000	3.000	3.69
URANIUM-234	PCI/G	1/2	2	0/2	0.700-0.700	0.70	0.600	0.600	1.04
THORIUM-230	PCI/G	2/2	2	0/2	0.700-1.300	1.00	0.600	0.600	1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.600-0.600	0.60	0.600	0.600	1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.600	0.600	0.150
THORIUM-232	PCI/G	0/2	2	0/2			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	0/2	2	0/2			5.472	5.472	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.800	0.800	1.31
THORIUM-228	PCI/G	1/2	2	0/2	0.700-0.700	0.70	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.100	1.100	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	28/28	0	18/28	2740.000-20700.000	12410.00	10.000	12.000	11900
ANTIMONY	MG/KG	12/22	0	12/22	18.100-59.800	30.93	2.200	18.900	NA
ARSENIC	MG/KG	22/22	0	3/22	2.300-9.200	6.00	10.000	12.000	8.20
BARIUM	MG/KG	28/28	0	14/28	50.600-174.000	94.88	10.000	12.000	95.7
BERYLLIUM	MG/KG	18/28	0	11/28	0.280-2.200	0.75	0.220	0.970	0.6
CADMIUM	MG/KG	8/28	0	8/28	2.000-6.700	5.00	1.000	1.900	0.870
CALCIUM	MG/KG	28/28	0	28/28	5620.000-347000.000	89213.21	10.000	12.000	4340
CHROMIUM	MG/KG	28/28	0	20/28	7.000-80.100	19.19	10.000	12.000	15.5
COBALT	MG/KG	27/28	0	1/28	6.300-16.500	10.56	3.500	3.500	14.2
COPPER	MG/KG	27/28	0	26/28	7.100-56.200	23.79	26.100	26.100	14.1
CYANIDE	MG/KG	5/27	27	3/27	0.130-1.500	0.49	0.110	3.400	0.270
IRON	MG/KG	28/28	0	18/28	8240.000-35000.000	22380.00	10.000	12.000	21700
LEAD	MG/KG	23/23	0	5/23	7.400-60.500	20.22	10.000	12.000	26.4
MAGNESIUM	MG/KG	28/28	0	28/28	3880.000-39500.000	19663.57	10.000	12.000	2780
MANGANESE	MG/KG	28/28	0	0/28	412.000-1000.000	648.04	10.000	12.000	1350
MERCURY	MG/KG	4/28	28	1/28	0.140-4.600	1.28	0.050	0.140	0.3
MOLYBDENUM	MG/KG	12/28	0	12/28	0.600-5.200	2.78	2.100	3.900	NA
NICKEL	MG/KG	27/28	0	20/28	6.700-49.100	24.66	25.500	25.500	20.9
POTASSIUM	MG/KG	28/28	0	21/28	389.000-2570.000	1566.00	10.000	12.000	1230
SELENIUM	MG/KG	0/9	0	0/9			0.230	1.200	0.72
SILICON	MG/KG	21/22	0	17/22	155.000-6660.000	3837.81	51.400	51.400	1800
SILVER	MG/KG	11/28	0	11/28	0.970-10.200	5.19	0.200	1.500	NA

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	26/28	0	26/28	80.600-294.000	156.89	70.700	136.000	51.1
THALLIUM	MG/KG	19/28	0	0/28	0.110-0.410	0.24	0.110	1.100	0.58
VANADIUM	MG/KG	28/28	0	5/28	8.200-33.900	25.32	10.000	12.000	30.4
ZINC	MG/KG	28/28	0	10/28	28.900-318.000	71.81	10.000	12.000	59.6

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	15/15	15	4/15	2380.000-14300.000	8966.67	11.000	13.000	11900
ARSENIC	MG/KG	11/11	11	2/11	2.500-13.700	6.60	11.000	13.000	8.20
BARIUM	MG/KG	15/15	15	3/15	12.600-145.000	69.43	11.000	13.000	95.7
BERYLLIUM	MG/KG	8/15	15	2/15	0.420-0.920	0.58	0.320	1.800	0.6
CADMIUM	MG/KG	0/15	15	0/15			0.800	4.600	0.870
CALCIUM	MG/KG	15/15	15	14/15	4160.000-222000.000	84644.00	11.000	13.000	4340
CHROMIUM	MG/KG	14/15	15	1/15	7.000-16.500	11.27	9.200	9.200	15.5
COBALT	MG/KG	13/15	15	2/15	3.700-32.900	10.74	6.100	9.200	14.2
COPPER	MG/KG	13/15	15	5/15	5.500-22.200	14.24	6.100	9.200	14.1
CYANIDE	MG/KG	1/15	15	1/15	0.340-0.340	0.34	0.110	0.240	0.270
IRON	MG/KG	15/15	15	4/15	3420.000-26400.000	17201.33	11.000	13.000	21700
LEAD	MG/KG	15/15	15	0/15	2.900-23.200	11.67	11.000	13.000	26.4
MAGNESIUM	MG/KG	15/15	15	15/15	2810.000-44500.000	21836.00	11.000	13.000	2780
MANGANESE	MG/KG	15/15	15	1/15	303.000-1360.000	550.80	11.000	13.000	1350
MERCURY	MG/KG	0/15	15	0/15			0.100	0.130	0.3
MOLYBDENUM	MG/KG	12/15	15	12/15	4.200-7.600	5.88	4.400	18.400	NA
NICKEL	MG/KG	13/15	15	0/15	9.100-20.300	14.85	12.200	18.400	20.9
POTASSIUM	MG/KG	15/15	15	3/15	410.000-1380.000	849.53	11.000	13.000	1230
SELENIUM	MG/KG	1/15	15	0/15	0.520-0.520	0.52	0.300	0.490	0.72
SILICON	MG/KG	14/14	14	0/14	322.000-727.000	554.79	11.000	13.000	1800
SILVER	MG/KG	13/15	15	13/15	3.000-8.300	5.30	6.100	9.200	NA
SODIUM	MG/KG	15/15	15	15/15	54.400-2070.000	335.33	11.000	13.000	51.1

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
THALLIUM	MG/KG	3/15	15	0/15	0.350-0.550	0.47	0.300	0.570	0.58
VANADIUM	MG/KG	14/15	15	4/15	8.500-37.600	23.20	9.200	9.200	30.4
ZINC	MG/KG	15/15	15	0/15	9.200-58.200	40.85	11.000	13.000	59.6

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	4/4	4	2/4	5520.000-18300.000	11385.00	6.000	13.000	11900
ANTIMONY	MG/KG	0/2	2	0/2			2.500	6.700	NA
ARSENIC	MG/KG	4/4	4	1/4	3.600-13.500	6.70	6.000	13.000	8.20
BARIUM	MG/KG	4/4	4	2/4	49.200-183.000	104.88	6.000	13.000	95.7
BERYLLIUM	MG/KG	2/4	4	2/4	1.000-2.000	1.50	1.000	1.400	0.6
CADMIUM	MG/KG	3/4	4	3/4	2.500-4.500	3.63	1.100	1.100	0.870
CALCIUM	MG/KG	4/4	4	4/4	6620.000-130000.000	61980.00	6.000	13.000	4340
CHROMIUM	MG/KG	4/4	4	3/4	12.100-25.600	20.38	6.000	13.000	15.5
COBALT	MG/KG	4/4	4	2/4	5.800-16.700	11.73	6.000	13.000	14.2
COPPER	MG/KG	3/4	4	3/4	14.600-18.400	16.80	24.600	24.600	14.1
CYANIDE	MG/KG	0/3	3	0/3			0.280	0.310	0.270
IRON	MG/KG	4/4	4	3/4	13800.000-31800.000	22825.00	6.000	13.000	21700
LEAD	MG/KG	4/4	4	1/4	10.300-37.700	20.15	6.000	13.000	26.4
MAGNESIUM	MG/KG	4/4	4	4/4	4520.000-26900.000	15212.50	6.000	13.000	2780
MANGANESE	MG/KG	4/4	4	0/4	376.000-762.000	609.25	6.000	13.000	1350
MERCURY	MG/KG	1/4	4	1/4	1.000-1.000	1.00	0.060	0.062	0.3
MOLYBDENUM	MG/KG	0/3	3	0/3			2.200	4.300	NA
NICKEL	MG/KG	3/4	4	2/4	10.900-39.700	29.73	36.300	36.300	20.9
POTASSIUM	MG/KG	4/4	4	1/4	595.000-1560.000	1018.50	6.000	13.000	1230
SELENIUM	MG/KG	0/2	2	0/2			0.250	1.100	0.72
SILICON	MG/KG	1/2	2	0/2	327.000-327.000	327.00	84.200	84.200	1800
SILVER	MG/KG	1/4	4	1/4	2.900-2.900	2.90	0.230	2.200	NA

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	3/4	4	3/4	98.100-316.000	203.37	117.000	117.000	51.1
THALLIUM	MG/KG	1/4	4	0/4	0.270-0.270	0.27	0.170	0.440	0.58
VANADIUM	MG/KG	4/4	4	1/4	16.800-36.800	24.30	6.000	13.000	30.4
ZINC	MG/KG	4/4	4	2/4	52.600-502.000	167.68	6.000	13.000	59.6

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	18/18	18	1/18	2020.000-17400.000	9435.56	5.000	13.000	16100
ANTIMONY	MG/KG	0/2	2	0/2			0.820	7.900	NA
ARSENIC	MG/KG	13/14	14	1/14	3.400-14.400	6.51	0.510	0.510	9.57
BARIUM	MG/KG	18/18	18	1/18	9.900-165.000	70.49	5.000	13.000	119
BERYLLIUM	MG/KG	7/18	18	4/18	0.410-2.700	0.99	0.350	1.500	0.620
CADMIUM	MG/KG	3/18	18	3/18	1.900-6.400	4.20	0.820	2.900	0.910
CALCIUM	MG/KG	18/18	18	0/18	4200.000-139000.000	68490.00	5.000	13.000	150000
CHROMIUM	MG/KG	17/18	18	2/18	8.500-22.600	13.81	5.800	5.800	20.7
COBALT	MG/KG	17/18	18	6/18	4.600-30.200	12.52	5.800	5.800	15.7
COPPER	MG/KG	16/18	18	4/18	9.500-30.100	17.35	5.800	11.900	20.0
CYANIDE	MG/KG	0/17	17	0/17			0.110	0.360	.17
IRON	MG/KG	18/18	18	2/18	5950.000-38900.000	20397.22	5.000	13.000	30700
LEAD	MG/KG	18/18	18	4/18	4.400-19.130	11.19	5.000	13.000	15.6
MAGNESIUM	MG/KG	18/18	18	1/18	3320.000-52400.000	20535.00	5.000	13.000	42600
MANGANESE	MG/KG	18/18	18	1/18	232.000-1770.000	572.11	5.000	13.000	1300
MERCURY	MG/KG	0/18	18	0/18			0.060	0.130	0.29
MOLYBDENUM	MG/KG	12/17	17	12/17	4.400-10.000	6.45	2.200	11.600	2.7
NICKEL	MG/KG	16/18	18	2/18	11.300-66.200	23.45	11.600	13.100	34.3
POTASSIUM	MG/KG	18/18	18	1/18	336.000-2020.000	1037.33	5.000	13.000	1980
SELENIUM	MG/KG	0/16	16	0/16			0.240	1.300	NA
SILICON	MG/KG	15/15	15	0/15	123.000-930.000	527.33	5.000	13.000	1590
SILVER	MG/KG	13/18	18	13/18	3.500-10.100	5.62	0.250	5.800	NA

05/24/94

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	17/18	18	3/18	67.100-1560.000	283.91	112.000	112.000	285
THALLIUM	MG/KG	3/18	18	2/18	0.250-0.720	0.54	0.250	0.840	0.49
VANADIUM	MG/KG	18/18	18	2/18	7.000-41.800	22.71	5.000	13.000	37.8
ZINC	MG/KG	18/18	18	1/18	22.000-189.000	58.79	5.000	13.000	82.0

000044

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1-5699

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	8080.000-8080.000	8080.00	11.000	11.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			2.500	2.500	NA
ARSENIC	MG/KG	1/1	1	0/1	4.000-4.000	4.00	11.000	11.000	9.57
BARIUM	MG/KG	1/1	1	0/1	49.900-49.900	49.90	11.000	11.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	3.200-3.200	3.20	11.000	11.000	0.620
CADMIUM	MG/KG	1/1	1	1/1	1.100-1.100	1.10	11.000	11.000	0.910
CALCIUM	MG/KG	1/1	1	1/1	154000.000-154000.000	154000.00	11.000	11.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	12.300-12.300	12.30	11.000	11.000	20.7
COBALT	MG/KG	1/1	1	0/1	7.300-7.300	7.30	11.000	11.000	15.7
COPPER	MG/KG	0/1	1	0/1			14.600	14.600	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.280	0.280	.17
IRON	MG/KG	1/1	1	0/1	16700.000-16700.000	16700.00	11.000	11.000	30700
LEAD	MG/KG	1/1	1	0/1	8.900-8.900	8.90	11.000	11.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	23500.000-23500.000	23500.00	11.000	11.000	42600
MANGANESE	MG/KG	1/1	1	0/1	521.000-521.000	521.00	11.000	11.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			3.900	3.900	2.7
NICKEL	MG/KG	0/1	1	0/1			22.800	22.800	34.3
POTASSIUM	MG/KG	1/1	1	1/1	2000.000-2000.000	2000.00	11.000	11.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.230	0.230	NA
SILICON	MG/KG	0/1	1	0/1			92.300	92.300	1590
SILVER	MG/KG	0/1	1	0/1			0.460	0.460	NA

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000045

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
SODIUM	MG/KG	0/1	1	0/1			247.000	247.000	285
THALLIUM	MG/KG	1/1	1	0/1	0.260-0.260	0.26	11.000	11.000	0.49
VANADIUM	MG/KG	1/1	1	0/1	26.700-26.700	26.70	11.000	11.000	37.8
ZINC	MG/KG	1/1	1	1/1	780.000-780.000	780.00	11.000	11.000	82.0

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1-5699

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	9040.000-11400.000	10220.00	11.000	12.000	16100
ARSENIC	MG/KG	2/2	2	1/2	4.400-18.700	11.55	11.000	12.000	9.57
BARIUM	MG/KG	2/2	2	1/2	46.500-348.000	197.25	11.000	12.000	119
BERYLLIUM	MG/KG	1/2	2	1/2	1.600-1.600	1.60	0.980	0.980	0.620
CADMIUM	MG/KG	2/2	2	2/2	1.400-1.800	1.60	11.000	12.000	0.910
CALCIUM	MG/KG	2/2	2	1/2	38500.000-159000.000	98750.00	11.000	12.000	150000
CHROMIUM	MG/KG	2/2	2	0/2	12.300-16.600	14.45	11.000	12.000	20.7
COBALT	MG/KG	1/2	2	1/2	20.900-20.900	20.90	9.100	9.100	15.7
COPPER	MG/KG	2/2	2	1/2	14.100-25.500	19.80	11.000	12.000	20.0
CYANIDE	MG/KG	0/2	2	0/2			0.280	0.310	.17
IRON	MG/KG	2/2	2	1/2	19100.000-31800.000	25450.00	11.000	12.000	30700
LEAD	MG/KG	2/2	2	1/2	9.300-16.500	12.90	11.000	12.000	15.6
MAGNESIUM	MG/KG	2/2	2	0/2	13600.000-19000.000	16300.00	11.000	12.000	42600
MANGANESE	MG/KG	2/2	2	1/2	713.000-2620.000	1666.50	11.000	12.000	1300
MERCURY	MG/KG	0/2	2	0/2			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/2	2	0/2			3.900	4.200	2.7
NICKEL	MG/KG	2/2	2	1/2	19.600-46.000	32.80	11.000	12.000	34.3
POTASSIUM	MG/KG	2/2	2	1/2	1530.000-2140.000	1835.00	11.000	12.000	1980
SELENIUM	MG/KG	1/2	2	1/2	0.490-0.490	0.49	2.300	2.300	NA
SILVER	MG/KG	0/2	2	0/2			0.230	0.250	NA
SODIUM	MG/KG	2/2	2	0/2	203.000-261.000	232.00	11.000	12.000	285
THALLIUM	MG/KG	0/2	2	0/2			0.230	0.250	0.49

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
VANADIUM	MG/KG	2/2	2	0/2	19.400-28.500	23.95	11.000	12.000	37.8
ZINC	MG/KG	2/2	2	2/2	192.000-202.000	197.00	11.000	12.000	82.0

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T159699

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	9620.000-9620.000	9620.00	11.000	11.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			2.500	2.500	NA
ARSENIC	MG/KG	1/1	1	0/1	3.100-3.100	3.10	11.000	11.000	9.57
BARIUM	MG/KG	1/1	1	0/1	51.300-51.300	51.30	11.000	11.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	1.800-1.800	1.80	11.000	11.000	0.620
CADMIUM	MG/KG	1/1	1	1/1	1.600-1.600	1.60	11.000	11.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	122000.000-122000.000	122000.00	11.000	11.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	15.300-15.300	15.30	11.000	11.000	20.7
COBALT	MG/KG	1/1	1	0/1	8.700-8.700	8.70	11.000	11.000	15.7
COPPER	MG/KG	0/1	1	0/1			16.900	16.900	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.250	0.250	.17
IRON	MG/KG	1/1	1	0/1	22200.000-22200.000	22200.00	11.000	11.000	30700
LEAD	MG/KG	1/1	1	0/1	15.400-15.400	15.40	11.000	11.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	23300.000-23300.000	23300.00	11.000	11.000	42600
MANGANESE	MG/KG	1/1	1	0/1	463.000-463.000	463.00	11.000	11.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			3.400	3.400	2.7
NICKEL	MG/KG	0/1	1	0/1			26.000	26.000	34.3
POTASSIUM	MG/KG	1/1	1	1/1	2100.000-2100.000	2100.00	11.000	11.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.230	0.230	NA
SILICON	MG/KG	1/1	1	0/1	106.000-106.000	106.00	11.000	11.000	1590
SILVER	MG/KG	0/1	1	0/1			0.400	0.400	NA

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C00049

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
SODIUM	MG/KG	0/1	1	0/1			218.000	218.000	285
THALLIUM	MG/KG	0/1	1	0/1			0.200	0.200	0.49
VANADIUM	MG/KG	1/1	1	0/1	25.000-25.000	25.00	11.000	11.000	37.8
ZINC	MG/KG	1/1	1	1/1	391.000-391.000	391.00	11.000	11.000	82.0

000050

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	3690.000-3690.000	3690.00	11.000	11.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			2.400	2.400	NA
ARSENIC	MG/KG	1/1	1	0/1	4.300-4.300	4.30	11.000	11.000	9.57
BARIUM	MG/KG	1/1	1	0/1	16.400-16.400	16.40	11.000	11.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	3.500-3.500	3.50	11.000	11.000	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.100	1.100	0.910
CALCIUM	MG/KG	1/1	1	1/1	186000.000-186000.000	186000.00	11.000	11.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	7.000-7.000	7.00	11.000	11.000	20.7
COBALT	MG/KG	1/1	1	0/1	5.000-5.000	5.00	11.000	11.000	15.7
COPPER	MG/KG	0/1	1	0/1			12.700	12.700	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.270	0.270	.17
IRON	MG/KG	1/1	1	0/1	11500.000-11500.000	11500.00	11.000	11.000	30700
LEAD	MG/KG	1/1	1	1/1	28.200-28.200	28.20	11.000	11.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	24500.000-24500.000	24500.00	11.000	11.000	42600
MANGANESE	MG/KG	1/1	1	0/1	563.000-563.000	563.00	11.000	11.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.050	0.050	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			3.700	3.700	2.7
NICKEL	MG/KG	0/1	1	0/1			15.900	15.900	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1240.000-1240.000	1240.00	11.000	11.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.220	0.220	NA
SILICON	MG/KG	0/1	1	0/1			90.600	90.600	1590
SILVER	MG/KG	0/1	1	0/1			0.440	0.440	NA

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
SODIUM	MG/KG	0/1	1	0/1			280.000	280.000	285
THALLIUM	MG/KG	0/1	1	0/1			0.220	0.220	0.49
VANADIUM	MG/KG	1/1	1	0/1	18.600-18.600	18.60	11.000	11.000	37.8
ZINC	MG/KG	1/1	1	1/1	442.000-442.000	442.00	11.000	11.000	82.0

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/22	22	1/22	1.000-1.000	1.00	10.000	5900.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/22	22	0/22			10.000	5900.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/22	22	0/22			10.000	5900.000	
1,1-DICHLOROETHANE	UG/KG	0/22	22	0/22			10.000	5900.000	
1,1-DICHLOROETHENE	UG/KG	0/22	22	0/22			10.000	5900.000	
1,2-DICHLOROETHANE	UG/KG	0/22	22	0/22			10.000	5900.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/22	22	0/22			10.000	5900.000	
1,2-DICHLOROPROPANE	UG/KG	0/22	22	0/22			10.000	5900.000	
2-BUTANONE	UG/KG	0/20	20	0/20			10.000	5900.000	
2-HEXANONE	UG/KG	0/20	20	0/20			10.000	5900.000	
4-METHYL-2-PENTANONE	UG/KG	0/20	20	0/20			10.000	5900.000	
ACETONE	UG/KG	0/21	21	0/21			10.000	24.000	
BENZENE	UG/KG	0/22	22	0/22			10.000	5900.000	
BROMODICHLOROMETHANE	UG/KG	0/22	22	0/22			10.000	5900.000	
BROMOFORM	UG/KG	0/22	22	0/22			10.000	5900.000	
BROMOMETHANE	UG/KG	1/22	22	1/22	720.000-720.000	720.00	10.000	12.000	
CARBON DISULFIDE	UG/KG	0/22	22	0/22			10.000	5900.000	
CARBON TETRACHLORIDE	UG/KG	0/22	22	0/22			10.000	5900.000	
CHLOROBENZENE	UG/KG	0/22	22	0/22			10.000	5900.000	
CHLOROETHANE	UG/KG	0/22	22	0/22			10.000	5900.000	
CHLOROFORM	UG/KG	0/22	22	0/22			10.000	5900.000	
CHLOROMETHANE	UG/KG	0/21	21	0/21			10.000	5900.000	

AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/22	22	0/22			10.000	5900.000	
DIBROMOCHLOROMETHANE	UG/KG	0/22	22	0/22			10.000	5900.000	
ETHYLBENZENE	UG/KG	3/22	22	3/22	0.800-660.000	220.93	10.000	12.000	
METHYLENE CHLORIDE	UG/KG	1/22	22	1/22	2.000-2.000	2.00	10.000	5900.000	
STYRENE	UG/KG	1/21	21	1/21	1.000-1.000	1.00	10.000	5900.000	
TETRACHLOROETHENE	UG/KG	5/22	22	5/22	1.000-48000.000	9601.40	10.000	12.000	
TOLUENE	UG/KG	6/22	22	6/22	0.700-16.000	3.75	11.000	5900.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/22	22	0/22			10.000	5900.000	
TRICHLOROETHENE	UG/KG	0/22	22	0/22			10.000	5900.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			10.000	11.000	
VINYL CHLORIDE	UG/KG	0/22	22	0/22			10.000	5900.000	
XYLENES, TOTAL	UG/KG	1/22	22	1/22	2000.000-2000.000	2000.00	10.000	12.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/15	15	1/15	5.000-5.000	5.00	11.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/15	15	0/15			11.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/15	15	0/15			11.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/15	15	0/15			11.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/15	15	0/15			11.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/15	15	0/15			11.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/15	15	0/15			11.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/15	15	0/15			11.000	13.000	
2-BUTANONE	UG/KG	1/15	15	1/15	1.000-1.000	1.00	11.000	13.000	
2-HEXANONE	UG/KG	0/15	15	0/15			11.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/15	15	0/15			11.000	13.000	
ACETONE	UG/KG	0/15	15	0/15			11.000	19.000	
BENZENE	UG/KG	0/15	15	0/15			11.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/15	15	0/15			11.000	13.000	
BROMOFORM	UG/KG	0/15	15	0/15			11.000	13.000	
BROMOMETHANE	UG/KG	0/15	15	0/15			11.000	13.000	
CARBON DISULFIDE	UG/KG	0/15	15	0/15			11.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/15	15	0/15			11.000	13.000	
CHLOROBENZENE	UG/KG	0/15	15	0/15			11.000	13.000	
CHLOROETHANE	UG/KG	0/15	15	0/15			11.000	13.000	
CHLOROFORM	UG/KG	0/15	15	0/15			11.000	13.000	
CHLOROMETHANE	UG/KG	0/15	15	0/15			11.000	13.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/15	15	0/15			11.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/15	15	0/15			11.000	13.000	
ETHYLBENZENE	UG/KG	0/15	15	0/15			11.000	13.000	
METHYLENE CHLORIDE	UG/KG	0/15	15	0/15			11.000	100.000	
STYRENE	UG/KG	0/15	15	0/15			11.000	13.000	
TETRACHLOROETHENE	UG/KG	0/15	15	0/15			11.000	13.000	
TOLUENE	UG/KG	2/15	15	2/15	1.000-1.000	1.00	11.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/15	15	0/15			11.000	13.000	
TRICHLOROETHENE	UG/KG	0/15	15	0/15			11.000	13.000	
VINYL ACETATE	UG/KG	0/15	15	0/15			11.000	13.000	
VINYL CHLORIDE	UG/KG	0/15	15	0/15			11.000	13.000	
XYLENES, TOTAL	UG/KG	0/15	15	0/15			11.000	13.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			6.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			6.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			6.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			6.000	13.000	
2-BUTANONE	UG/KG	0/2	2	0/2			11.000	13.000	
2-HEXANONE	UG/KG	0/2	2	0/2			11.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			11.000	13.000	
ACETONE	UG/KG	0/4	4	0/4			11.000	13.000	
BENZENE	UG/KG	0/4	4	0/4			6.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	13.000	
BROMOFORM	UG/KG	0/4	4	0/4			6.000	13.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			6.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			6.000	13.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			6.000	13.000	
CHLOROETHANE	UG/KG	1/4	4	1/4	4.000-4.000	4.00	11.000	13.000	
CHLOROFORM	UG/KG	0/4	4	0/4			6.000	13.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	13.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	13.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			6.000	13.000	
METHYLENE CHLORIDE	UG/KG	1/4	4	1/4	14.000-14.000	14.00	11.000	29.000	
STYRENE	UG/KG	0/4	4	0/4			6.000	13.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			6.000	13.000	
TOLUENE	UG/KG	0/4	4	0/4			6.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	13.000	
TRICHLOROETHENE	UG/KG	1/4	4	1/4	3.000-3.000	3.00	6.000	13.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			11.000	13.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	13.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			6.000	13.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/39	39	1/39	2.000-2.000	2.00	5.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/39	39	0/39			5.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/39	39	0/39			5.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/39	39	0/39			5.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/39	39	0/39			5.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/39	39	0/39			5.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/39	39	1/39	4.000-4.000	4.00	5.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/39	39	0/39			5.000	13.000	
2-BUTANONE	UG/KG	1/37	37	1/37	3.000-3.000	3.00	10.000	14.000	
2-HEXANONE	UG/KG	0/37	37	0/37			10.000	14.000	
4-METHYL-2-PENTANONE	UG/KG	0/37	37	0/37			10.000	14.000	
ACETONE	UG/KG	1/38	38	1/38	59.000-59.000	59.00	11.000	33.000	
BENZENE	UG/KG	0/39	39	0/39			5.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/39	39	0/39			5.000	13.000	
BROMOFORM	UG/KG	0/39	39	0/39			5.000	13.000	
BROMOMETHANE	UG/KG	0/39	39	0/39			10.000	14.000	
CARBON DISULFIDE	UG/KG	1/39	39	1/39	5.000-5.000	5.00	5.000	13.000	
CARBON TETRACHLORIDE	UG/KG	1/39	39	1/39	2.000-2.000	2.00	5.000	13.000	
CHLOROBENZENE	UG/KG	0/39	39	0/39			10.000	14.000	
CHLOROETHANE	UG/KG	0/39	39	0/39			5.000	13.000	
CHLOROFORM	UG/KG	0/39	39	0/39			10.000	14.000	
CHLOROMETHANE	UG/KG	0/39	39	0/39			5.000	13.000	

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/39	39	0/39			5.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/39	39	0/39			5.000	13.000	
ETHYLBENZENE	UG/KG	1/39	39	1/39	2.000-2.000	2.00	5.000	13.000	
METHYLENE CHLORIDE	UG/KG	3/39	39	3/39	3.000-38.000	25.33	5.000	65.000	
STYRENE	UG/KG	1/39	39	1/39	2.000-2.000	2.00	5.000	13.000	
TETRACHLOROETHENE	UG/KG	2/39	39	2/39	3.000-3.000	3.00	5.000	13.000	
TOLUENE	UG/KG	2/39	39	2/39	4.000-5.000	4.50	5.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/39	39	0/39			5.000	13.000	
TRICHLOROETHENE	UG/KG	3/39	39	3/39	1.000-40.000	17.00	5.000	13.000	
VINYL ACETATE	UG/KG	0/39	39	0/39			10.000	14.000	
VINYL CHLORIDE	UG/KG	0/39	39	0/39			10.000	14.000	
XYLENES, TOTAL	UG/KG	0/39	39	0/39			5.000	13.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	1/1	1	1/1	33.000-33.000	33.00	11.000	11.000	
BENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
METHYLENE CHLORIDE	UG/KG	1/1	1	1/1	8.000-8.000	8.00	11.000	11.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
TOLUENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			11.000	12.000	
ACETONE	UG/KG	0/2	2	0/2			11.000	12.000	
BENZENE	UG/KG	0/2	2	0/2			12.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
BROMOFORM	UG/KG	0/2	2	0/2			11.000	12.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			11.000	12.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
METHYLENE CHLORIDE	UG/KG	1/2	2	1/2	1.000-1.000	1.00	12.000	12.000	
STYRENE	UG/KG	0/2	2	0/2			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
TOLUENE	UG/KG	0/2	2	0/2			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			11.000	12.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	0	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	0	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	0	0/1			11.000	11.000	
2-BUTANONE	UG/KG	0/1	0	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	0	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	0	0/1			11.000	11.000	
ACETONE	UG/KG	1/1	0	1/1	61.000-61.000	61.00	11.000	11.000	
BENZENE	UG/KG	0/1	0	0/1			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	0	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	0	0/1			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/1	0	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	0	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	0	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	0	0/1			11.000	11.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	0	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	0	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/1	0	0/1			11.000	11.000	
METHYLENE CHLORIDE	UG/KG	1/1	0	1/1	23.000-23.000	23.00	11.000	11.000	
STYRENE	UG/KG	0/1	0	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/1	0	0/1			11.000	11.000	
TOLUENE	UG/KG	0/1	0	0/1			11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	0	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	0	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	0	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	0	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	0	0/1			11.000	11.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			150.000	150.000	
BENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
METHYLENE CHLORIDE	UG/KG	1/1	1	1/1	16.000-16.000	16.00	11.000	11.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	1/1	1	1/1	4.000-4.000	4.00	11.000	11.000	
TOLUENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOLAL	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/22	22	0/22			340.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/22	22	0/22			340.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/22	22	0/22			340.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/22	22	0/22			340.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/19	19	0/19			850.000	980.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/19	19	0/19			340.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/19	19	0/19			340.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/19	19	0/19			340.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/19	19	0/19			850.000	980.000	
2,4-DINITROTOLUENE	UG/KG	0/22	22	0/22			340.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/22	22	0/22			340.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/22	22	0/22			340.000	400.000	
2-CHLOROPHENOL	UG/KG	0/19	19	0/19			340.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/22	22	0/22			340.000	400.000	
2-METHYLPHENOL	UG/KG	0/19	19	0/19			340.000	400.000	
2-NITROANILINE	UG/KG	0/22	22	0/22			850.000	980.000	
2-NITROPHENOL	UG/KG	0/19	19	0/19			340.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/21	21	0/21			340.000	400.000	
3-NITROANILINE	NONE	0/22	22	0/22			850.000	980.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/19	19	0/19			850.000	980.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/22	22	0/22			340.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/19	19	0/19			340.000	400.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/22	22	0/22			340.000	400.000	
4-METHYLPHENOL	UG/KG	0/19	19	0/19			340.000	400.000	
4-NITROANILINE	UG/KG	0/22	22	0/22			850.000	980.000	
4-NITROPHENOL	UG/KG	0/19	19	0/19			850.000	980.000	
ACENAPHTHENE	UG/KG	0/22	22	0/22			340.000	400.000	
ACENAPHTHYLENE	UG/KG	0/22	22	0/22			340.000	400.000	
ANTHRACENE	UG/KG	1/22	22	1/22	4.000-4.000	4.00	340.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/22	22	0/22			340.000	400.000	
BENZO(A)PYRENE	UG/KG	0/22	22	0/22			340.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	1/22	22	1/22	47.000-47.000	47.00	340.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/22	22	0/22			340.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	1/22	22	1/22	33.000-33.000	33.00	340.000	400.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			850.000	950.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			340.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/22	22	0/22			340.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/22	22	0/22			340.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/22	22	0/22			340.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/22	22	0/22			340.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/22	22	0/22			340.000	400.000	
CARBAZOLE	UG/KG	0/22	22	0/22			340.000	400.000	
CHRYSENE	UG/KG	0/22	22	0/22			340.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	6/22	22	6/22	17.000-38.000	25.33	340.000	400.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/22	22	0/22			340.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/22	22	0/22			340.000	400.000	
DIBENZOFURAN	UG/KG	0/22	22	0/22			340.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/22	22	0/22			340.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/22	22	0/22			340.000	400.000	
FLUORANTHENE	UG/KG	3/22	22	3/22	23.000-58.000	36.33	340.000	400.000	
FLUORENE	UG/KG	0/22	22	0/22			340.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/22	22	0/22			340.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/22	22	0/22			340.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/22	22	0/22			340.000	400.000	
HEXACHLOROETHANE	UG/KG	0/22	22	0/22			340.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/22	22	0/22			340.000	400.000	
ISOPHORONE	UG/KG	0/22	22	0/22			340.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/22	22	0/22			340.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	1/22	22	1/22	1300.000-1300.000	1300.00	340.000	400.000	
NAPHTHALENE	UG/KG	0/22	22	0/22			340.000	400.000	
NITROBENZENE	UG/KG	0/22	22	0/22			340.000	400.000	
P-CHLOROANILINE	UG/KG	0/21	21	0/21			340.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/19	19	0/19			850.000	980.000	
PHENANTHRENE	UG/KG	1/22	22	1/22	22.000-22.000	22.00	340.000	400.000	
PHENOL	UG/KG	0/19	19	0/19			340.000	400.000	
PYRENE	UG/KG	4/22	22	4/22	23.000-110.000	54.50	340.000	400.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/15	15	0/15			350.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/15	15	0/15			350.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/15	15	0/15			350.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/15	15	0/15			350.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/15	15	0/15			1700.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/15	15	0/15			350.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/15	15	0/15			350.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/15	15	0/15			350.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/15	15	0/15			1700.000	2000.000	
2,4-DINITROTOLUENE	UG/KG	0/15	15	0/15			350.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/15	15	0/15			350.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/15	15	0/15			350.000	420.000	
2-CHLOROPHENOL	UG/KG	0/15	15	0/15			350.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/15	15	0/15			350.000	420.000	
2-METHYLPHENOL	UG/KG	0/15	15	0/15			350.000	420.000	
2-NITROANILINE	UG/KG	0/15	15	0/15			1700.000	2000.000	
2-NITROPHENOL	UG/KG	0/15	15	0/15			350.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/15	15	0/15			690.000	840.000	
3-NITROANILINE	NONE	0/15	15	0/15			1700.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/15	15	0/15			1700.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/15	15	0/15			350.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/15	15	0/15			350.000	420.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/15	15	0/15			350.000	420.000	
4-METHYLPHENOL	UG/KG	0/15	15	0/15			350.000	420.000	
4-NITROANILINE	UG/KG	0/15	15	0/15			1700.000	2000.000	
4-NITROPHENOL	UG/KG	0/15	15	0/15			1700.000	2000.000	
ACENAPHTHENE	UG/KG	0/15	15	0/15			350.000	420.000	
ACENAPHTHYLENE	UG/KG	0/15	15	0/15			350.000	420.000	
ANTHRACENE	UG/KG	0/15	15	0/15			350.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/15	15	0/15			350.000	420.000	
BENZO(A)PYRENE	UG/KG	1/15	15	1/15	67.000-67.000	67.00	350.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/15	15	0/15			350.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/15	15	0/15			350.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/15	15	0/15			350.000	420.000	
BENZOIC ACID	UG/KG	1/15	15	1/15	84.000-84.000	84.00	1700.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/15	15	0/15			350.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/15	15	0/15			350.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/15	15	0/15			350.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/15	15	0/15			350.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	4/10	10	4/10	42.000-53.000	47.00	350.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	2/15	15	2/15	60.000-750.000	405.00	350.000	420.000	
CHRYSENE	UG/KG	0/15	15	0/15			350.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/15	15	2/15	40.000-110.000	75.00	350.000	420.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/15	15	0/15			350.000	420.000	

AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/15	15	0/15			350.000	420.000	
DIBENZOFURAN	UG/KG	0/15	15	0/15			350.000	420.000	
DIETHYL PHTHALATE	UG/KG	1/15	15	1/15	52.000-52.000	52.00	350.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/15	15	0/15			350.000	420.000	
FLUORANTHENE	UG/KG	0/15	15	0/15			350.000	420.000	
FLUORENE	UG/KG	0/15	15	0/15			350.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/15	15	0/15			350.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/15	15	0/15			350.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/15	15	0/15			350.000	420.000	
HEXACHLOROETHANE	UG/KG	0/15	15	0/15			350.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/15	15	0/15			350.000	420.000	
ISOPHORONE	UG/KG	0/15	15	0/15			350.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/15	15	0/15			350.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/15	15	0/15			350.000	420.000	
NAPHTHALENE	UG/KG	0/15	15	0/15			350.000	420.000	
NITROBENZENE	UG/KG	0/15	15	0/15			350.000	420.000	
P-CHLOROANILINE	UG/KG	0/15	15	0/15			350.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/15	15	0/15			1700.000	2000.000	
PHENANTHRENE	UG/KG	0/15	15	0/15			350.000	420.000	
PHENOL	UG/KG	1/15	15	1/15	56.000-56.000	56.00	350.000	420.000	
PYRENE	UG/KG	0/15	15	0/15			350.000	420.000	
TRIBUTYL PHOSPHATE	UG/KG	2/15	15	2/15	46.000-71.000	58.50	350.000	400.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			940.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			370.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			940.000	2000.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			370.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			370.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			370.000	420.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			370.000	420.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			370.000	420.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			940.000	2000.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			370.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	4	0/4			380.000	820.000	
3-NITROANILINE	NONE	0/4	4	0/4			940.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			940.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			370.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			370.000	420.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			370.000	420.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			370.000	420.000	
4-NITROANILINE	UG/KG	0/4	4	0/4			940.000	2000.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			940.000	2000.000	
ACENAPHTHENE	UG/KG	0/4	4	0/4			370.000	420.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			370.000	420.000	
ANTHRACENE	UG/KG	0/4	4	0/4			370.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	4	0/4			370.000	420.000	
BENZO(A)PYRENE	UG/KG	0/4	4	0/4			370.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	4	0/4			370.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	4	0/4			370.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	4	0/4			370.000	420.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			940.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			370.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			370.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			370.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			370.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/4	4	0/4			370.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	420.000	
CARBAZOLE	UG/KG	0/2	2	0/2			380.000	420.000	
CHRYSENE	UG/KG	0/4	4	0/4			370.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	420.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	4	0/4			370.000	420.000	
DIBENZOFURAN	UG/KG	0/4	4	0/4			370.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	420.000	
FLUORANTHENE	UG/KG	0/4	4	0/4			370.000	420.000	
FLUORENE	UG/KG	0/4	4	0/4			370.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			370.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			370.000	420.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			370.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	4	0/4			370.000	420.000	
ISOPHORONE	UG/KG	0/4	4	0/4			370.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			370.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			370.000	420.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			370.000	420.000	
NITROBENZENE	UG/KG	0/4	4	0/4			370.000	420.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			370.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			940.000	2000.000	
PHENANTHRENE	UG/KG	0/4	4	0/4			370.000	420.000	
PHENOL	UG/KG	0/4	4	0/4			370.000	420.000	
PYRENE	UG/KG	0/4	4	0/4			370.000	420.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/39	39	0/39			350.000	500.000	
1,2-DICHLOROBENZENE	UG/KG	0/39	39	0/39			350.000	500.000	
1,3-DICHLOROBENZENE	UG/KG	0/39	39	0/39			350.000	500.000	
1,4-DICHLOROBENZENE	UG/KG	0/39	39	0/39			350.000	500.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/39	39	0/39			1000.000	2400.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/39	39	0/39			350.000	500.000	
2,4-DICHLOROPHENOL	UG/KG	0/39	39	0/39			350.000	500.000	
2,4-DIMETHYLPHENOL	UG/KG	0/39	39	0/39			350.000	500.000	
2,4-DINITROPHENOL	UG/KG	0/39	39	0/39			1000.000	2400.000	
2,4-DINITROTOLUENE	UG/KG	0/39	39	0/39			350.000	500.000	
2,6-DINITROTOLUENE	UG/KG	0/39	39	0/39			350.000	500.000	
2-CHLORONAPHTHALENE	UG/KG	0/39	39	0/39			350.000	500.000	
2-CHLOROPHENOL	UG/KG	1/39	39	1/39	42.000-42.000	42.00	350.000	500.000	
2-METHYLNAPHTHALENE	UG/KG	2/39	39	2/39	45.000-81.000	63.00	350.000	500.000	
2-METHYLPHENOL	UG/KG	0/39	39	0/39			350.000	500.000	
2-NITROANILINE	UG/KG	1/39	39	1/39	2400.000-2400.000	2400.00	1000.000	2100.000	
2-NITROPHENOL	UG/KG	0/39	39	0/39			350.000	500.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/39	39	0/39			370.000	1000.000	
3-NITROANILINE	NONE	0/39	39	0/39			1000.000	2400.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/39	39	0/39			1000.000	2400.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/39	39	0/39			350.000	500.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	1/39	39	1/39	45.000-45.000	45.00	350.000	500.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/39	39	0/39			350.000	500.000	
4-METHYLPHENOL	UG/KG	0/39	39	0/39			350.000	500.000	
4-NITROANILINE	UG/KG	0/39	39	0/39			1000.000	2400.000	
4-NITROPHENOL	UG/KG	2/39	39	2/39	94.000-110.000	102.00	1000.000	2400.000	
ACENAPHTHENE	UG/KG	1/39	39	1/39	77.000-77.000	77.00	350.000	500.000	
ACENAPHTHYLENE	UG/KG	0/39	39	0/39			350.000	500.000	
ANTHRACENE	UG/KG	2/39	39	2/39	66.000-190.000	128.00	350.000	500.000	
BENZO(A)ANTHRACENE	UG/KG	6/39	39	6/39	85.000-740.000	294.17	350.000	500.000	
BENZO(A)PYRENE	UG/KG	4/39	39	4/39	190.000-620.000	315.00	350.000	500.000	
BENZO(B)FLUORANTHENE	UG/KG	5/39	39	5/39	110.000-1400.000	562.00	350.000	500.000	
BENZO(G,H,I)PERYLENE	UG/KG	3/39	39	3/39	150.000-500.000	293.33	350.000	500.000	
BENZO(K)FLUORANTHENE	UG/KG	1/39	39	1/39	190.000-190.000	190.00	350.000	500.000	
BENZOIC ACID	UG/KG	0/39	39	0/39			1000.000	2400.000	
BENZYL ALCOHOL	UG/KG	0/39	39	0/39			350.000	500.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/39	39	0/39			350.000	500.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/39	39	0/39			350.000	500.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/39	39	0/39			350.000	500.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	13/36	36	13/36	42.000-530.000	120.23	360.000	500.000	
BUTYL BENZYL PHTHALATE	UG/KG	3/39	39	3/39	140.000-360.000	236.67	350.000	500.000	
CARBAZOLE	UG/KG	0/2	2	0/2			400.000	420.000	
CHRYSENE	UG/KG	6/39	39	6/39	90.000-940.000	363.33	350.000	500.000	
DI-N-BUTYL PHTHALATE	UG/KG	7/39	39	7/39	39.000-190.000	76.43	360.000	500.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	1/39	39	1/39	58.000-58.000	58.00	350.000	500.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/39	39	2/39	83.000-100.000	91.50	350.000	500.000	
DIBENZOFURAN	UG/KG	1/39	39	1/39	67.000-67.000	67.00	350.000	500.000	
DIETHYL PHTHALATE	UG/KG	2/39	39	2/39	64.000-74.000	69.00	350.000	500.000	
DIMETHYL PHTHALATE	UG/KG	0/39	39	0/39			350.000	500.000	
FLUORANTHENE	UG/KG	8/39	39	8/39	93.000-1300.000	405.38	360.000	500.000	
FLUORENE	UG/KG	1/39	39	1/39	77.000-77.000	77.00	350.000	500.000	
HEXACHLOROBENZENE	UG/KG	0/39	39	0/39			350.000	500.000	
HEXACHLOROBUTADIENE	UG/KG	0/39	39	0/39			350.000	500.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/39	39	0/39			350.000	500.000	
HEXACHLOROETHANE	UG/KG	0/39	39	0/39			350.000	500.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	3/39	39	3/39	150.000-410.000	243.33	350.000	500.000	
ISOPHORONE	UG/KG	0/39	39	0/39			350.000	500.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/39	39	0/39			350.000	500.000	
N-NITROSODIPHENYLAMINE	UG/KG	1/39	39	1/39	72.000-72.000	72.00	350.000	440.000	
NAPHTHALENE	UG/KG	2/39	39	2/39	52.000-54.000	53.00	350.000	500.000	
NITROBENZENE	UG/KG	0/39	39	0/39			350.000	500.000	
P-CHLOROANILINE	UG/KG	0/38	38	0/38			350.000	440.000	
PENTACHLOROPHENOL	UG/KG	0/39	39	0/39			1000.000	2400.000	
PHENANTHRENE	UG/KG	8/39	39	8/39	71.000-870.000	237.13	360.000	500.000	
PHENOL	UG/KG	3/39	39	3/39	38.000-51.000	43.33	350.000	500.000	
PYRENE	UG/KG	11/39	39	11/39	43.000-1300.000	307.27	360.000	500.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
TRIBUTYL PHOSPHATE	UG/KG	0/14	14	0/14			370.000	440.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			950.000	950.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			380.000	380.000	
3-NITROANILINE	NONE	0/1	1	0/1			950.000	950.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			950.000	950.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			950.000	950.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			950.000	950.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			950.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			380.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			950.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			380.000	410.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			380.000	410.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	410.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			950.000	1000.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			380.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			380.000	410.000	
3-NITROANILINE	NONE	0/2	2	0/2			950.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			950.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			380.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	410.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			380.000	410.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	410.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			950.000	1000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			950.000	1000.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			380.000	410.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			380.000	410.000	
ANTHRACENE	UG/KG	0/2	2	0/2			380.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	410.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			380.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			380.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	410.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			950.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			380.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			380.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			380.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			380.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/2	2	1/2	94.000-94.000	94.00	410.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	410.000	
CARBAZOLE	UG/KG	0/2	2	0/2			380.000	410.000	
CHRYSENE	UG/KG	0/2	2	0/2			380.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	410.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	410.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			380.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	410.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	410.000	
FLUORENE	UG/KG	0/2	2	0/2			380.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			380.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			380.000	410.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			380.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			380.000	410.000	
ISOPHORONE	UG/KG	0/2	2	0/2			380.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			380.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			380.000	410.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			380.000	410.000	
NITROBENZENE	UG/KG	0/2	2	0/2			380.000	410.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			380.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			950.000	1000.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			380.000	410.000	
PHENOL	UG/KG	0/2	2	0/2			380.000	410.000	
PYRENE	UG/KG	0/2	2	0/2			380.000	410.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			360.000	360.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			360.000	360.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			360.000	360.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			360.000	360.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			910.000	910.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			360.000	360.000	
3-NITROANILINE	NONE	0/1	1	0/1			910.000	910.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			360.000	360.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			360.000	360.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			910.000	910.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			360.000	360.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			360.000	360.000	
ANTHRACENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			910.000	910.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			360.000	360.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			360.000	360.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			360.000	360.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			360.000	360.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
CARBAZOLE	UG/KG	0/1	1	0/1			360.000	360.000	
CHRYSENE	UG/KG	0/1	1	0/1			360.000	360.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	

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AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			360.000	360.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			360.000	360.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			360.000	360.000	
FLUORENE	UG/KG	0/1	1	0/1			360.000	360.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			360.000	360.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			360.000	360.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			360.000	360.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			360.000	360.000	
ISOPHORONE	UG/KG	0/1	1	0/1			360.000	360.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			360.000	360.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			360.000	360.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			360.000	360.000	
NITROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			360.000	360.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			360.000	360.000	
PHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
PYRENE	UG/KG	0/1	1	0/1			360.000	360.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/28	28	0/28			3.400	19.000	
4,4'-DDE	UG/KG	0/28	28	0/28			3.400	19.000	
4,4'-DDT	UG/KG	1/28	28	1/28	3.000-3.000	3.00	3.400	19.000	
ALDRIN	UG/KG	1/28	28	1/28	1.600-1.600	1.60	1.700	9.600	
ALPHA-BHC	UG/KG	0/28	28	0/28			1.700	9.600	
ALPHA-CHLORDANE	UG/KG	1/28	28	1/28	5.100-5.100	5.10	1.700	96.000	
AROCLOR-1016	UG/KG	0/28	28	0/28			34.000	96.000	
AROCLOR-1221	UG/KG	0/28	28	0/28			68.000	96.000	
AROCLOR-1232	UG/KG	0/28	28	0/28			34.000	96.000	
AROCLOR-1242	UG/KG	0/28	28	0/28			34.000	96.000	
AROCLOR-1248	UG/KG	0/28	28	0/28			34.000	96.000	
AROCLOR-1254	UG/KG	7/28	28	7/28	20.000-1400.000	416.43	34.000	190.000	
AROCLOR-1260	UG/KG	0/28	28	0/28			34.000	190.000	
BETA-BHC	UG/KG	0/28	28	0/28			1.700	9.600	
DELTA-BHC	UG/KG	0/28	28	0/28			1.700	9.600	
DIELDRIN	UG/KG	3/28	28	3/28	0.550-2.600	1.85	3.400	19.000	
ENDOSULFAN II	UG/KG	1/28	28	1/28	2.000-2.000	2.00	3.400	19.000	
ENDOSULFAN SULFATE	UG/KG	1/28	28	1/28	0.730-0.730	0.73	3.400	19.000	
ENDOSULFAN-I	UG/KG	0/28	28	0/28			1.700	9.600	
ENDRIN	UG/KG	3/28	28	3/28	0.940-19.000	8.05	3.400	19.000	
ENDRIN ALDEHYDE	UG/KG	0/22	22	0/22			3.400	4.000	
ENDRIN KETONE	UG/KG	0/28	28	0/28			3.400	19.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/28	28	0/28			1.700	9.600	
GAMMA-CHLORDANE	UG/KG	0/28	28	0/28			1.700	96.000	
HEPTACHLOR	UG/KG	0/28	28	0/28			1.700	9.600	
HEPTACHLOR EPOXIDE	UG/KG	1/28	28	1/28	1.000-1.000	1.00	1.700	9.600	
METHOXYCHLOR	UG/KG	3/28	28	3/28	0.850-3.500	1.88	17.000	96.000	
TOXAPHENE	UG/KG	0/28	28	0/28			170.000	210.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/15	0	0/15			17.000	59.000	
4,4'-DDE	UG/KG	0/15	0	0/15			17.000	59.000	
4,4'-DDT	UG/KG	0/15	0	0/15			17.000	59.000	
ALDRIN	UG/KG	0/15	0	0/15			8.400	30.000	
ALPHA-BHC	UG/KG	0/15	0	0/15			8.900	8400.000	
ALPHA-CHLORDANE	UG/KG	0/15	0	0/15			84.000	300.000	
AROCLOR-1016	UG/KG	0/15	0	0/15			84.000	300.000	
AROCLOR-1221	UG/KG	0/15	0	0/15			84.000	300.000	
AROCLOR-1232	UG/KG	0/15	0	0/15			84.000	300.000	
AROCLOR-1242	UG/KG	0/15	0	0/15			84.000	300.000	
AROCLOR-1248	UG/KG	0/15	0	0/15			84.000	300.000	
AROCLOR-1254	UG/KG	1/15	0	1/15	36.000-36.000	36.00	170.000	590.000	
AROCLOR-1260	UG/KG	0/15	0	0/15			170.000	590.000	
BETA-BHC	UG/KG	0/15	0	0/15			8.400	30.000	
DELTA-BHC	UG/KG	0/15	0	0/15			8.400	30.000	
DIELDRIN	UG/KG	0/15	0	0/15			17.000	59.000	
ENDOSULFAN II	UG/KG	0/15	0	0/15			17.000	59.000	
ENDOSULFAN SULFATE	UG/KG	0/15	0	0/15			17.000	59.000	
ENDOSULFAN-I	UG/KG	0/15	0	0/15			8.400	30.000	
ENDRIN	UG/KG	0/15	0	0/15			17.000	59.000	
ENDRIN KETONE	UG/KG	0/15	0	0/15			17.000	59.000	
GAMMA-BHC (LINDANE)	UG/KG	0/15	0	0/15			8.400	30.000	

AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-CHLORDANE	UG/KG	0/15	0	0/15			84.000	300.000	
HEPTACHLOR	UG/KG	0/15	0	0/15			8.400	30.000	
HEPTACHLOR EPOXIDE	UG/KG	0/15	0	0/15			8.400	30.000	
METHOXYCHLOR	UG/KG	0/15	0	0/15			84.000	300.000	
TOXAPHENE	UG/KG	0/15	0	0/15			170.000	590.000	

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AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/4	4	0/4			3.700	90.000	
4,4'-DDE	UG/KG	0/4	4	0/4			3.700	90.000	
4,4'-DDT	UG/KG	0/4	4	0/4			3.700	90.000	
ALDRIN	UG/KG	0/4	4	0/4			1.900	45.000	
ALPHA-BHC	UG/KG	0/4	4	0/4			1.900	45.000	
ALPHA-CHLORDANE	UG/KG	0/4	4	0/4			1.900	450.000	
AROCLOR-1016	UG/KG	0/4	4	0/4			37.000	450.000	
AROCLOR-1221	UG/KG	0/4	4	0/4			75.000	450.000	
AROCLOR-1232	UG/KG	0/4	4	0/4			37.000	450.000	
AROCLOR-1242	UG/KG	0/4	4	0/4			37.000	450.000	
AROCLOR-1248	UG/KG	0/4	4	0/4			37.000	450.000	
AROCLOR-1254	UG/KG	0/4	4	0/4			37.000	900.000	
AROCLOR-1260	UG/KG	0/4	4	0/4			37.000	900.000	
BETA-BHC	UG/KG	0/4	4	0/4			1.900	45.000	
DELTA-BHC	UG/KG	0/4	4	0/4			1.900	45.000	
DIELDRIN	UG/KG	0/4	4	0/4			3.700	90.000	
ENDOSULFAN II	UG/KG	0/4	4	0/4			3.700	90.000	
ENDOSULFAN SULFATE	UG/KG	0/4	4	0/4			3.700	90.000	
ENDOSULFAN-I	UG/KG	0/4	4	0/4			1.900	45.000	
ENDRIN	UG/KG	0/4	4	0/4			3.700	90.000	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.700	4.100	
ENDRIN KETONE	UG/KG	0/4	4	0/4			3.700	90.000	

05/24/94

000095

AREA: Plant 1 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/4	4	0/4			1.900	45.000	
GAMMA-CHLORDANE	UG/KG	0/4	4	0/4			1.900	450.000	
HEPTACHLOR	UG/KG	0/4	4	0/4			1.900	45.000	
HEPTACHLOR EPOXIDE	UG/KG	0/4	4	0/4			1.900	45.000	
METHOXYCHLOR	UG/KG	0/4	4	0/4			19.000	450.000	
TOXAPHENE	UG/KG	0/4	4	0/4			190.000	900.000	

000096

1 5 6 3 9

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/18	18	0/18			4.000	24.000	
4,4'-DDE	UG/KG	0/18	18	0/18			4.000	24.000	
4,4'-DDT	UG/KG	0/18	18	0/18			4.000	24.000	
ALDRIN	UG/KG	0/18	18	0/18			2.100	12.000	
ALPHA-BHC	UG/KG	0/18	18	0/18			2.100	12.000	
ALPHA-CHLORDANE	UG/KG	0/18	18	0/18			2.100	120.000	
AROCLOR-1016	UG/KG	0/18	18	0/18			40.000	120.000	
AROCLOR-1221	UG/KG	0/18	18	0/18			82.000	120.000	
AROCLOR-1232	UG/KG	0/18	18	0/18			40.000	120.000	
AROCLOR-1242	UG/KG	0/18	18	0/18			40.000	120.000	
AROCLOR-1248	UG/KG	0/18	18	0/18			40.000	120.000	
AROCLOR-1254	UG/KG	1/18	18	1/18	120.000-120.000	120.00	40.000	240.000	
AROCLOR-1260	UG/KG	0/18	18	0/18			40.000	240.000	
BETA-BHC	UG/KG	0/18	18	0/18			2.100	12.000	
DELTA-BHC	UG/KG	0/18	18	0/18			2.100	12.000	
DIELDRIN	UG/KG	0/18	18	0/18			4.000	24.000	
ENDOSULFAN II	UG/KG	0/18	18	0/18			4.000	24.000	
ENDOSULFAN SULFATE	UG/KG	0/18	18	0/18			4.000	24.000	
ENDOSULFAN-I	UG/KG	0/18	18	0/18			2.100	12.000	
ENDRIN	UG/KG	0/18	18	0/18			4.000	24.000	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			4.000	4.200	
ENDRIN KETONE	UG/KG	0/18	18	0/18			4.000	24.000	

05/24/94

000097

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/18	18	0/18			2.100	12.000	
GAMMA-CHLORDANE	UG/KG	0/18	18	0/18			2.100	120.000	
HEPTACHLOR	UG/KG	0/18	18	0/18			2.100	12.000	
HEPTACHLOR EPOXIDE	UG/KG	0/18	18	0/18			2.100	12.000	
METHOXYCHLOR	UG/KG	0/18	18	0/18			21.000	120.000	
TOXAPHENE	UG/KG	0/18	18	0/18			180.000	240.000	

000098

05/24/94

5699

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.800	3.800	
ALDRIN	UG/KG	0/1	1	0/1			1.900	1.900	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	1.900	
AROCLOR-1016	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			76.000	76.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			38.000	38.000	
BETA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
DELTA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
DIELDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			1.900	1.900	
ENDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.800	3.800	

05/24/94

000099

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.900	1.900	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	1.900	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.900	1.900	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.900	1.900	
METHOXYCHLOR	UG/KG	0/1	1	0/1			19.000	19.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	190.000	

000100

5699

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.800	4.100	
4,4'-DDE	UG/KG	0/2	2	0/2			3.800	4.100	
4,4'-DDT	UG/KG	0/2	2	0/2			3.800	4.100	
ALDRIN	UG/KG	0/2	2	0/2			1.900	2.100	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.900	2.100	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	2.100	
AROCLOR-1016	UG/KG	0/2	2	0/2			38.000	41.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			76.000	83.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			38.000	41.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			38.000	41.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			38.000	41.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			38.000	41.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			38.000	41.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.900	2.100	
DELTA-BHC	UG/KG	0/2	2	0/2			1.900	2.100	
DIELDRIN	UG/KG	0/2	2	0/2			3.800	4.100	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.800	4.100	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.800	4.100	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.900	2.100	
ENDRIN	UG/KG	0/2	2	0/2			3.800	4.100	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.800	4.100	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.800	4.100	

05/24/94

000503

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.900	2.100	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	2.100	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.900	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.900	2.100	
METHOXYCHLOR	UG/KG	0/2	2	0/2			19.000	21.000	
TOXAPHENE	UG/KG	0/2	2	0/2			190.000	210.000	

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.600	3.600	
4,4'-DDE	UG/KG	0/1	1	0/1			3.600	3.600	
4,4'-DDT	UG/KG	0/1	1	0/1			3.600	3.600	
ALDRIN	UG/KG	0/1	1	0/1			1.800	1.800	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.800	1.800	
AROCLOR-1016	UG/KG	0/1	1	0/1			36.000	36.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			73.000	73.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			36.000	36.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			36.000	36.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			36.000	36.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			36.000	36.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			36.000	36.000	
BETA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
DELTA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
DIELDRIN	UG/KG	0/1	1	0/1			3.600	3.600	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.600	3.600	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.600	3.600	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			1.800	1.800	
ENDRIN	UG/KG	0/1	1	0/1			3.600	3.600	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.600	3.600	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.600	3.600	

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000103

AREA: Plant 1 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.800	1.800	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.800	1.800	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.800	1.800	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.800	1.800	
METHOXYCHLOR	UG/KG	1/1	1	1/1	22.000-22.000	22.00	11.000	11.000	
TOXAPHENE	UG/KG	0/1	1	0/1			180.000	180.000	

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D.2.2 PLANT 2/3 AREA

The Plant 2/3 area is located in the southwestern quadrant of the former production area. It is bordered to the north by the Plant 1 area, to the south by the Plant 8 area, to the east by the Plant 4/5/7 area, and to the west by the lime sludge ponds (Operable Unit 2). Numerous buildings and structures are located within the Plant 2/3 area. This portion of the former production area was distinguished by acid-based chemical processing operations. As a result, most of the uranium was handled in a soluble form. The major buildings and structures related to possible contaminant source areas situated within the Plant 2/3 area are presented in Figure D-2 and are as follows:

- Ore refinery plant (2A)
- General sump/refinery sump control building (2B)
- Metal dissolver building (2D)
- Nuclear fuel services (NFS) storage area and pump house (2E)
- Nitric acid recovery (NAR) control house (3C)
- NAR towers (3D)
- Hot raffinate building (3E)
- Refinery sump (3H)
- Trane incinerator (39A)

The ore refinery plant (2A) and the metal dissolver building (2D) (see Figure D.2-5) were areas where prepared ores and uranium-bearing residues were dissolved in nitric acid and extracted using tributyl phosphate and kerosene. It is believed that significant quantities of uranium entered the surface and subsurface soil here as a dissolved component of acid solutions that were spilled on floors or leaked from sumps and subgrade piping. The general sump (2B) and refinery sump (3H) were used to treat aqueous effluent from Plant 2/3 to remove dissolved uranium. Both treatment processes are strongly suspected of having leaked significant quantities of uranium-bearing liquids. Other suspected sources in the Plant 2/3 area include the ore digester in the hot raffinate building (3E); aboveground storage tanks containing uranyl nitrate; miscellaneous spills; and air releases and subsequent deposition of uranium-bearing particulates. Although not process related, the water storage tank (2CB) has been repainted with uncontrolled sandblasting that has generated airborne particulates. Table D-1 summarizes the parameters known to be present or used in the Plant 2/3 area.

Seven RCRA hazardous waste management units (HWMUs) are located within the Plant 2/3 area. These include the NAR system; the Trane incinerator; the ore refinery plant, including the uranyl nitrate hexahydrate (UNH) tanks; the NFS UNH tanks; the UNH tanks north of the ore refinery building; the hot raffinate building, including the UNH tanks; and the UNH tanks located southwest

of the ore refinery plant. Under Removal Action No. 20, 220,000 gallons of acidic UNH currently stored in 21 tanks in and around Plant 2/3 are to be removed and prepared for safe storage. The removal action involves neutralization of solutions, precipitation of the material, filtering the precipitate, and packaging the resulting filter cake in double containment for safe storage. Implementation of this removal action is scheduled to be completed in June 1995.

Soil sampling in the Plant 2/3 area was performed in phases, beginning in 1987 with the site-wide RI/FS program. The major sampling program for this area was performed in 1989 and 1990, when 69 soil borings were drilled and sampled and four surface soil locations were sampled within the Plant 2/3 area. A program consisting of the addition of six soil borings and two surface soil samples (PA-SS-06 and -11) was completed in the area as part of a 1993 investigation.

Surface Soil

Surface soil sampling in the Plant 2/3 area was widely spread over the area, with an emphasis on the area near the ore refinery plant. Surface soil sampling locations are shown in Figure D.2-5. The maximum sample concentration was compared to the 95th percentile background (background) value for each constituent to determine whether the constituent was considered a contamination problem in that area. Table D.2-2 presents the distribution of constituents with respect to the background values for each depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

As presented in Table D.2-2, the majority of the radionuclides analyzed showed levels greater than five times the background value from the 0- to 1.5-foot depth intervals. Activities of neptunium-237, plutonium-239/240 and -238, technetium-99, and ruthenium-106 were detected in the surface soil of the Plant 2/3 area; however, no background values for these constituents are available for comparison. Total uranium and the uranium isotopes and total thorium and the thorium isotopes were present at significantly elevated levels throughout all surface soil intervals. The maximum concentration of total uranium, 5685 mg/kg, was present in the 0- to 0.5-foot depth interval located near the ore refinery plant, as indicated in Figure D.2-5. Other significant levels of total uranium, ranging from 3000 to 4000 mg/kg, were found at the metal dissolver building in the 0- to 0.5-foot intervals.

A number of inorganic constituents were detected at levels elevated at least five times background concentrations within the 0- to 0.5-foot and 0.5- to 1.0-foot intervals in the Plant 2/3 area. These include beryllium, cadmium, calcium, lead, magnesium, mercury, and nickel. Chromium, copper, and sodium were at levels at least twice background. Concentrations of molybdenum and silver, which were not detected in the background surface soil samples, were also present in the surface soil of Plant 2/3. Many of the inorganic constituents were handled in the ore refinery plant (2A) and were typically detected from locations just north of the metal dissolver building as indicated in Table D-1. The only inorganics to exhibit highly elevated levels in the 1.0- to 1.5-foot depth interval were beryllium, cadmium, calcium, and magnesium.

The only volatile organic compounds detected in the surface soil (0 to 1.5 feet) within the Plant 2/3 area were acetone and methylene chloride, both common laboratory contaminants.

Seventeen semivolatiles, mainly polynuclear aromatic hydrocarbons (PAHs), which are common to industrial sites, were identified in surface soil within the Plant 2/3 area. The majority of these constituents were detected in the 0- to 0.5-foot and 1.0- to 1.5-foot intervals only. In addition, the uranium-mobilizing compound tributyl phosphate (TBP) was detected in both the 0- to 0.5-foot and 0.5- to 1.0-foot depth intervals, indicative of surface spillage of TBP and/or process liquids containing TBP.

Aroclor-1254, a PCB, was detected in all three surface soil depth intervals with concentrations ranging from 240 to 14,000 μg/kg.

Subsurface Soil

Subsurface soil sampling locations typically coincide with the general locations of the surface soil samples shown in Figure D.2-5. The sample concentrations were compared to the 95th percentile background (background) value for each constituent to determine whether the constituent was considered a problem contaminant in the area. Table D.2-2 presents the distribution of constituents with respect to the background values for each sample depth interval.

Within the subsurface soil of the Plant 2/3 area, uranium isotopes, total uranium, thorium isotopes, total thorium, and radium isotopes all were found at levels above background values to a depth of 20 feet, although not all analytes were present at all depth intervals. Total uranium was present in the

15.0- to 20.0-foot depth interval with concentrations of 2.65 to 735 mg/kg. Cesium-137 and plutonium-239/240 were detected only in the 1.5- to 3.0-foot interval. Strontium-90 was detected at elevated levels in the 1.5- to 3.0-foot and 5.0- to 10.0-foot intervals, and technetium-99 was detected in the 5.0- to 10.0-foot and 10.0- to 15.0-foot intervals.

The majority of the inorganic constituents that had highly elevated concentrations in the surface soil of the Plant 2/3 area had decreased in concentration within the subsurface zone. The only inorganics to show consistently elevated concentrations were beryllium, chromium, copper, and zinc, to a depth of 15.0 feet. Antimony, was detected in the 10.0- to 15.0-foot range in the subsurface soil. Perched groundwater is located approximately 5 to 7 feet below the ground surface in the vicinity of the Plant 2/3 area.

Eleven volatile organic compounds were present within the 5.0- to 10.0-foot depth interval of subsurface soil of the Plant 2/3 area. Most of these compounds (e.g., 1,1,1-trichloroethane [1,1,1-TCA] and tetrachloroethene [PCE]) are solvents known to have been used in this portion of the production area. Again, the most contaminated subsurface soil is present within the 5.0- to 10.0-foot zone.

A limited number of semivolatile compounds were identified in subsurface soil in 20 to 30 percent of the 6 to 11 samples analyzed in each interval in the Plant 2/3 area. These include bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, fluoranthene, phenanthrene, and pyrene. Bis(2-ethylhexyl)phthalate, a common laboratory contaminant, is the only semivolatile present deeper than 10 feet.

Aroclor-1254, a PCB, was detected in 2 of 6 and 2 of 11 subsurface soil samples collected at the 1.5- to 3.0-foot and 5.0- to 10.0-foot depths, respectively, with a maximum level of 740 μg/kg. No pesticides were detected in the subsurface soil of the Plant 2/3 area.

Conclusion

The contamination present at the Plant 2/3 area is found in both surface and subsurface soils. Total uranium concentrations were elevated significantly above background in soil from the surface to the 20.0-foot depth interval. Other radionuclides were detected at levels elevated above background in both surface and subsurface soil. The majority of inorganic and semivolatile contamination in the

Plant 2/3 area is limited to the surface soil, whereas the volatile organic and PCB contamination is prevalent in both surface and subsurface soil.

The ore refinery plant, the general sump, the metal dissolver building, and the hot raffinate building are the primary sources of contaminants. During the field investigation for the Plant 2/3 area, several borings were drilled through building foundations. Highly elevated levels of uranium (500 to 5000 mg/kg) were found, indicative of contamination resulting from plant operations. Because the majority of the uranium handled in this area was in soluble form, releases to the environment through spills on floors and leaks from underground piping and sumps were likely.

TABLE D.2-2
PLANT 2/3 AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	22	■	■	■	■	■	■	⊙	■	●	●	X	X	X	■	X	X	○
0.5 - 1	4	■	■	■	■	⊙	■	⊙	⊙	■	■	-	-	X	⊙	-	-	●
1 - 1.5	8	■	■	■	■	■	■	⊙	■	○	⊙	-	X	-	-	X	-	○
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	10	■	■	■	■	⊙	■	●	●	●	●	-	X	-	⊙	-	-	X
3 - 5	23	□	■	□	□	□	□	□	●	□	□	□	□	□	□	□	□	□
5 - 10	14	■	■	■	●	○	■	●	●	○	○	-	-	-	■	X	□	□
10 - 15	10	■	■	■	■	●	■	●	●	●	●	-	-	-	-	X	-	-
15 - 20	5	■	■	⊙	●	⊙	-	●	●	●	⊙	□	-	-	-	-	-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1360	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	69.6
0 - 0.5	13	●	-	●	●	⊙	■	■	⊙	●	⊙	●	●	■	■	○	■	X	⊙	●	●	○	X	⊙	○	●	⊙
0.5 - 1	6	●	-	●	●	⊙	■	■	⊙	⊙	⊙	-	●	■	■	○	⊙	X	⊙	●	-	-	X	⊙	-	○	●
1 - 1.5	8	●	-	○	●	■	⊙	■	●	○	●	-	●	●	■	○	●	-	●	●	○	○	X	⊙	○	○	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1690	ND	285	0.49	37.8	82
1.5 - 3	6	○	-	○	●	⊙	-	○	●	○	●	-	○	●	○	○	■	-	○	○	X	○	X	○	-	○	●
3 - 5	0																										
5 - 10	11	●	-	●	●	⊙	⊙	○	●	●	●	⊙	●	●	○	●	-	-	●	●	X	○	X	○	○	○	●
10 - 15	3	○	X	○	○	⊙	-	○	●	●	●	-	○	○	○	○	-	-	●	●	-	○	-	○	○	○	●
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

□ "Blank" - Not analyzed.

[-] Analyzed and not detected.

[○] Detection less than 95 percentile background value.

[●] Detection above but < 2X of 95 percentile background value.

[⊙] Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

[X] Detection where background level not recorded.

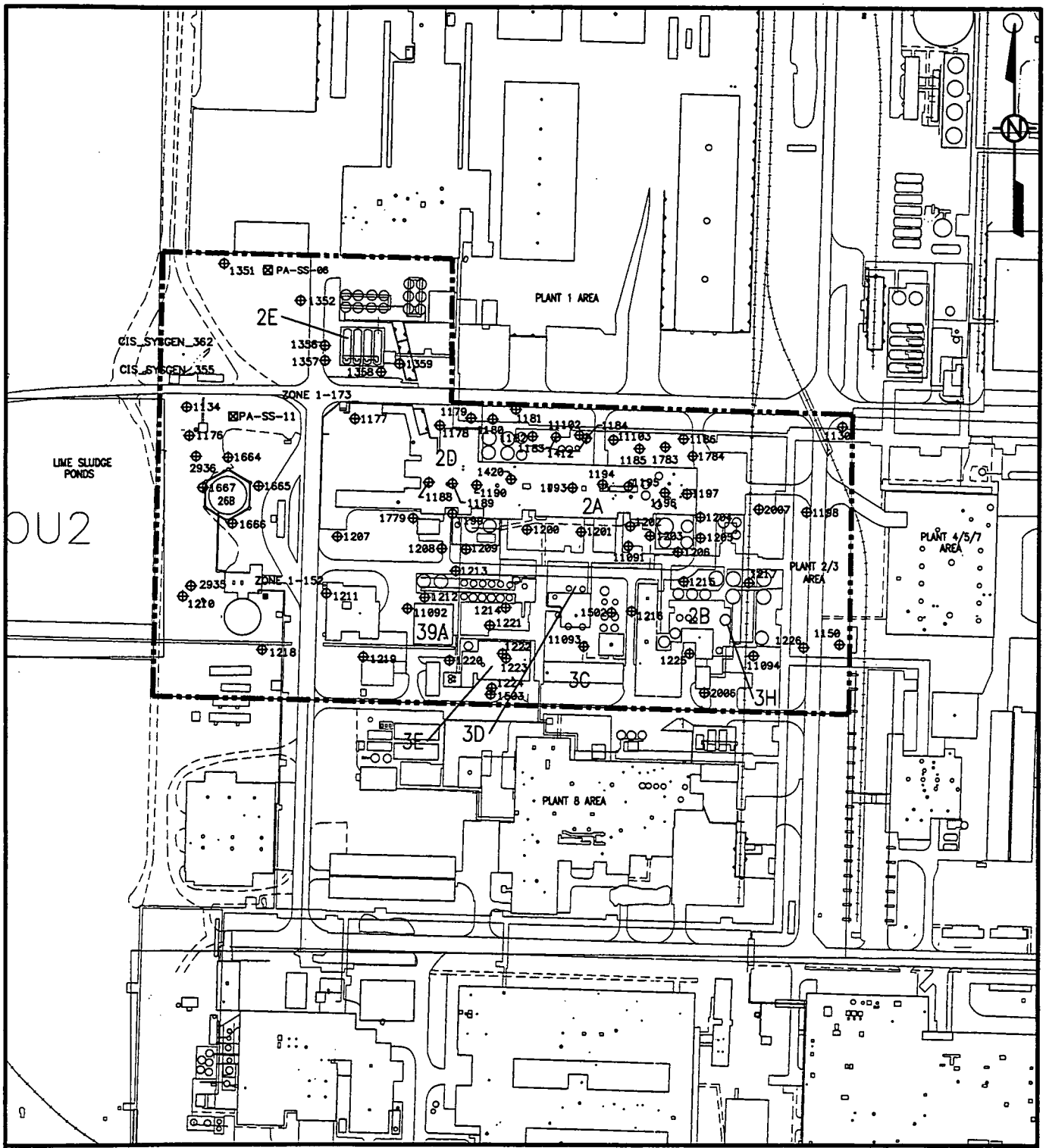
TABLE D.2-2
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)													SEMIVOLATILES (ug/kg)																			PESTICIDES/PCBs (ug/kg)										
	Number of Samples	1,1,-Dichloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1-Dichloroethene	2-Butanone	Acetone	Carbon disulfide	Ethylbenzene	Methylene chloride	Tetrachloroethene	Toluene	Total Xylenes	Number of Samples	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ehtylhexyl)phthalate	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Di-n-butyl phthalate	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Tributyl Phosphate	Number of Samples	Aroclor-1254									
Surface Soil:																																											
0 - 0.5	9	-	-	-	-	-	X	-	-	X	-	-	-	9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	9	X									
0.5 - 1	2	-	-	-	-	-	X	-	-	X	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	2	X									
1 - 1.5	8	-	-	-	-	-	X	-	-	X	-	-	-	8	-	-	X	X	X	X	X	X	-	X	-	X	X	-	X	X	X		8	X									
Subsurface Soil:																																											
1.5 - 3	6	-	-	-	-	X	X	-	-	X	-	-	-	6	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	X	X		5	X									
3 - 5	0													0																			0										
5 - 10	14	X	X	X	X	X	X	-	X	X	X	X	X	10	-	-	-	-	-	-	-	X	-	-	-	X	X	-	-	X	-		11	X									
10 - 15	3	X	-	-	-	-	X	X	-	X	-	-	-	3	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-		3	-									
15 - 20	0													0																			0										

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.



LEGEND :

3E	FACILITY DESIGNATION
⊠ PA-SS-08	SURFACE SOIL SAMPLING LOCATION
⊕ 1147	SOIL BORING LOCATION
▬▬▬	BOUNDARY OF AREA OF INTEREST

SCALE

0 200 400 FEET

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ACAD: C:\4P94\5.SCR 05/26/94 RSG

ACAD: C:\4P94\94051002.DWG 6/11/94 JAK

FIGURE D.2-5. PLANT 2/3 AREA

Plant 2/3 Area

Summary Soil Statistics

AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	27/27	22	25/27	0.400-1736.000	119.57			1.24
URANIUM, TOTAL	MG/KG	54/55	23	54/55	6.900-5685.000	339.99	11.000	11.000	3.73
URANIUM-234	PCI/G	22/22	22	20/22	0.500-1519.000	135.37			1.24
THORIUM-230	PCI/G	18/21	21	14/21	0.700-102.000	18.69	0.600	0.600	1.97
RADIUM-226	PCI/G	19/19	14	8/19	0.300-16.600	2.42			1.42
URANIUM-235/236	PCI/G	19/22	22	19/22	0.500-310.000	22.13	0.100	0.100	0.156
THORIUM-232	PCI/G	21/26	21	10/26	0.200-3.070	1.41	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	27/49	15	13/49	1.824-88.000	15.17	1.200	23.000	12.4
RADIUM-228	PCI/G	7/15	15	2/15	0.800-1.810	1.20	0.500	3.000	1.25
THORIUM-228	PCI/G	11/13	13	3/13	0.200-2.770	1.06	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	1/8	8	1/8	2.630-2.630	2.63	0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	2/16	16	2/16	0.634-0.926	0.78	0.600	0.600	NA
PLUTONIUM-238	PCI/G	2/16	16	2/16	0.718-0.755	0.74	0.600	0.600	NA
STRONTIUM-90	PCI/G	2/10	10	2/10	2.450-6.900	4.68	0.500	0.700	0.424
TECHNETIUM-99	PCI/G	6/15	15	6/15	1.270-2.500	1.85	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/12	7	0/12			1.000	14.300	NA
CESIUM-137	PCI/G	3/12	7	0/12	0.300-0.480	0.36	0.200	1.100	0.711

05/21/94

AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	4/4	4	4/4	1.600-75.400	23.58			1.24
URANIUM, TOTAL	MG/KG	4/4	4	4/4	6.140-225.000	119.01			3.73
URANIUM-234	PCI/G	4/4	4	4/4	1.500-78.300	25.75			1.24
THORIUM-230	PCI/G	4/4	4	2/4	1.300-37.100	11.10			1.97
RADIUM-226	PCI/G	4/4	4	2/4	0.700-4.900	2.06			1.42
URANIUM-235/236	PCI/G	3/4	4	3/4	0.600-7.180	2.93	0.600	0.600	0.156
THORIUM-232	PCI/G	4/4	4	1/4	0.300-6.000	2.02			1.36
THORIUM, TOTAL	MG/KG	4/4	2	1/4	2.736-54.723	18.35			12.4
RADIUM-228	PCI/G	3/4	4	1/4	0.910-7.900	3.29	0.500	0.500	1.25
THORIUM-228	PCI/G	3/3	3	1/3	0.300-7.600	2.98			1.43
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	1/4	4	1/4	0.900-0.900	0.90	0.600	0.600	NA
STRONTIUM-90	PCI/G	2/4	4	2/4	0.687-1.440	1.06	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/4	4	0/4			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	3	0/3			1.000	1.000	NA
CESIUM-137	PCI/G	1/3	3	1/3	1.100-1.100	1.10	0.200	0.200	0.711

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	11/11	11	8/11	0.900-246.000	64.80			1.24
URANIUM, TOTAL	MG/KG	24/24	21	22/24	2.800-1916.000	169.39			3.73
URANIUM-234	PCI/G	11/11	11	10/11	1.100-253.000	63.02			1.24
THORIUM-230	PCI/G	14/14	14	8/14	0.900-81.300	14.61			1.97
RADIUM-226	PCI/G	12/12	12	4/12	0.300-18.800	2.59			1.42
URANIUM-235/236	PCI/G	8/11	11	8/11	0.300-72.000	11.86	0.100	0.600	0.156
THORIUM-232	PCI/G	14/14	14	5/14	0.300-4.300	1.34			1.36
THORIUM, TOTAL	MG/KG	23/25	13	6/25	2.160-62.200	11.85	4.850	23.000	12.4
RADIUM-228	PCI/G	5/13	13	4/13	0.900-5.000	2.28	0.500	0.500	1.25
THORIUM-228	PCI/G	13/14	14	4/14	0.200-4.700	1.41	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/5	5	0/5			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/4	4	1/4	0.713-0.713	0.71	0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/3	3	1/3	1.400-1.400	1.40	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	1/4	4	0/4	0.250-0.250	0.25	0.200	0.200	0.711

05/21/94

AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	9/9	9	3/9	0.400-317.000	36.06			1.12
URANIUM, TOTAL	MG/KG	23/40	20	20/40	2.500-558.000	68.07	3.000	11.000	3.69
URANIUM-234	PCI/G	9/9	9	4/9	0.500-319.000	36.32			1.04
THORIUM-230	PCI/G	9/9	9	1/9	0.900-72.200	9.19			1.91
RADIUM-226	PCI/G	9/9	9	1/9	0.400-3.910	1.05			1.47
URANIUM-235/236	PCI/G	1/9	9	1/9	33.000-33.000	33.00	0.100	0.600	0.150
THORIUM-232	PCI/G	9/9	9	1/9	0.500-2.190	1.00			1.26
THORIUM, TOTAL	MG/KG	15/36	11	2/36	4.560-19.800	9.02	3.440	23.000	11.1
RADIUM-228	PCI/G	3/9	9	1/9	0.730-1.600	1.13	0.500	0.500	1.31
THORIUM-228	PCI/G	8/8	8	1/8	0.400-2.460	1.11			1.38
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/3	3	1/3	0.885-0.885	0.89	0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	0.940-0.940	0.94			.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	3	0/3			1.000	1.000	NA
CESIUM-137	PCI/G	1/3	3	1/3	0.260-0.260	0.26	0.200	0.200	NA

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05/21/94

AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	19/24	8	19/24	7.200-285.000	57.58	4.000	11.000	3.69
THORIUM, TOTAL	MG/KG	8/22	8	1/22	2.190-13.500	6.52	4.000	23.000	11.1

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	11/11	11	9/11	0.400-48.100	17.86			1.12
URANIUM, TOTAL	MG/KG	43/61	25	43/61	4.150-711.000	82.36	5.000	11.000	3.69
URANIUM-234	PCI/G	11/11	11	10/11	0.300-49.000	17.73			1.04
THORIUM-230	PCI/G	12/16	16	1/16	0.900-2.200	1.39	0.600	0.600	1.91
RADIUM-226	PCI/G	8/8	8	0/8	0.300-1.300	0.75			1.47
URANIUM-235/236	PCI/G	7/11	11	7/11	0.200-5.940	2.34	0.100	0.100	0.150
THORIUM-232	PCI/G	13/16	16	2/16	0.607-1.510	1.01	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	34/59	18	12/59	3.790-26.000	12.16	3.000	23.000	11.1
RADIUM-228	PCI/G	3/10	10	0/10	0.600-0.900	0.77	0.500	0.500	1.31
THORIUM-228	PCI/G	13/16	16	0/16	0.800-1.340	0.95	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/3	3	1/3	3.980-3.980	3.98	0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/4	4	1/4	2.900-2.900	2.90	1.000	1.000	NA

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05/21/94

AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	4/4	4	2/4	0.600-164.000	41.65			1.12
URANIUM, TOTAL	MG/KG	39/54	22	38/54	2.500-467.000	77.88	4.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	1/4	0.600-177.000	44.83			1.04
THORIUM-230	PCI/G	9/9	9	2/9	0.700-20.000	4.01			1.91
RADIUM-226	PCI/G	4/4	4	1/4	0.600-2.440	1.31			1.47
URANIUM-235/236	PCI/G	1/4	4	1/4	14.300-14.300	14.30	0.100	0.100	0.150
THORIUM-232	PCI/G	8/9	9	1/9	0.754-2.350	1.06	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	27/55	23	3/55	3.650-36.000	9.31	3.610	23.000	11.1
RADIUM-228	PCI/G	1/4	4	1/4	2.350-2.350	2.35	0.500	0.500	1.31
THORIUM-228	PCI/G	8/8	8	1/8	0.600-2.800	1.07			1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/2	2	1/2	1.310-1.310	1.31	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.320	1.320	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	5.650-5.650	5.65			1.12
URANIUM, TOTAL	MG/KG	26/30	12	25/30	2.650-735.000	94.47	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	3.680-3.680	3.68			1.04
THORIUM-230	PCI/G	2/2	2	1/2	1.640-3.210	2.43			1.91
RADIUM-226	PCI/G	1/1	1	1/1	3.170-3.170	3.17			1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	2/2	2	1/2	0.867-2.020	1.44			1.26
THORIUM, TOTAL	MG/KG	12/28	11	3/28	4.580-34.000	11.13	23.000	23.000	11.1
RADIUM-228	PCI/G	1/1	1	1/1	2.580-2.580	2.58			1.31
THORIUM-228	PCI/G	2/2	2	1/2	0.655-3.380	2.02			1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	2/2	2	0/2	0.600-0.600	0.60			1.12
URANIUM, TOTAL	MG/KG	1/1	1	0/1	3.000-3.000	3.00			3.69
URANIUM-234	PCI/G	1/2	2	0/2	0.700-0.700	0.70	0.600	0.600	1.04
THORIUM-230	PCI/G	2/2	2	0/2	0.600-0.900	0.75			1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.500-0.500	0.50			1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.600	0.600	0.150
THORIUM-232	PCI/G	0/2	2	0/2			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	0/2	2	0/2			5.472	5.472	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	0/2	2	0/2			0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	13/13	13	1/13	1640.000-14900.000	7788.46			11900
ANTIMONY	MG/KG	0/7	7	0/7			0.900	6.700	NA
ARSENIC	MG/KG	13/13	13	2/13	2.200-12.000	6.43			8.20
BARIUM	MG/KG	13/13	13	2/13	20.400-135.000	72.89			95.7
BERYLLIUM	MG/KG	13/13	13	13/13	0.680-2.400	1.40			0.6
CADMIUM	MG/KG	6/10	10	6/10	1.300-6.900	4.23	1.000	1.100	0.870
CALCIUM	MG/KG	13/13	13	13/13	49700.000-185000.000	92730.77			4340
CHROMIUM	MG/KG	13/13	13	6/13	4.300-75.500	21.30			15.5
COBALT	MG/KG	12/13	13	2/13	3.400-25.800	11.73	2.200	2.200	14.2
COPPER	MG/KG	12/13	13	10/13	7.700-44.200	22.93	7.200	7.200	14.1
CYANIDE	MG/KG	1/8	8	1/8	0.300-0.300	0.30	0.260	0.280	0.270
IRON	MG/KG	13/13	13	3/13	6190.000-25300.000	16593.85			21700
LEAD	MG/KG	13/13	13	6/13	4.500-334.000	51.62			26.4
MAGNESIUM	MG/KG	13/13	13	13/13	11300.000-49200.000	24530.77			2780
MANGANESE	MG/KG	13/13	13	0/13	287.000-917.000	492.92			1350
MERCURY	MG/KG	3/13	13	2/13	0.080-2.100	1.16	0.050	0.130	0.3
MOLYBDENUM	MG/KG	5/12	12	5/12	2.800-3.000	2.90	3.500	3.800	NA
NICKEL	MG/KG	10/13	13	7/13	5.700-50.000	26.51	11.700	24.600	20.9
POTASSIUM	MG/KG	13/13	13	2/13	260.000-1550.000	900.46			1230
SELENIUM	MG/KG	2/13	13	1/13	0.260-1.000	0.63	0.210	1.400	0.72
SILICON	MG/KG	4/7	7	0/7	65.000-172.000	128.25	109.000	356.000	1800
SILVER	MG/KG	5/13	13	5/13	7.700-17.200	9.80	0.210	0.450	NA

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	11/13	13	11/13	91.100-170.000	133.19	40.100	141.000	51.1
THALLIUM	MG/KG	2/13	13	0/13	0.290-0.440	0.37	0.210	0.460	0.58
VANADIUM	MG/KG	13/13	13	1/13	11.700-35.600	23.20			30.4
ZINC	MG/KG	13/13	13	6/13	35.900-247.000	77.64			59.6

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5699

AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	6/6	6	1/6	4580.000-13600.000	8920.00			11900
ANTIMONY	MG/KG	0/1	1	0/1			3.000	7.100	NA
ARSENIC	MG/KG	6/6	6	1/6	5.900-8.300	6.62			8.20
BARIUM	MG/KG	6/6	6	1/6	49.200-106.000	72.93			95.7
BERYLLIUM	MG/KG	5/6	6	5/6	0.660-1.700	1.05	0.860	0.860	0.6
CADMIUM	MG/KG	6/6	6	6/6	1.100-6.200	4.47			0.870
CALCIUM	MG/KG	6/6	6	6/6	54600.000-128000.000	98350.00			4340
CHROMIUM	MG/KG	6/6	6	5/6	12.300-37.300	22.20			15.5
COBALT	MG/KG	6/6	6	3/6	8.500-30.000	16.40			14.2
COPPER	MG/KG	6/6	6	6/6	18.600-39.500	26.33			14.1
CYANIDE	MG/KG	0/2	2	0/2			0.270	0.300	0.270
IRON	MG/KG	6/6	6	2/6	10800.000-23300.000	19300.00			21700
LEAD	MG/KG	6/6	6	3/6	8.600-440.000	96.30			26.4
MAGNESIUM	MG/KG	6/6	6	6/6	13400.000-34300.000	23833.33			2780
MANGANESE	MG/KG	6/6	6	0/6	323.000-792.000	546.83			1350
MERCURY	MG/KG	1/6	6	1/6	0.730-0.730	0.73	0.050	0.120	0.3
MOLYBDENUM	MG/KG	4/5	5	4/5	2.600-3.800	3.40	2.400	3.700	NA
NICKEL	MG/KG	6/6	6	6/6	25.300-46.600	34.50			20.9
POTASSIUM	MG/KG	6/6	6	1/6	335.000-1310.000	962.83			1230
SELENIUM	MG/KG	0/6	6	0/6			0.210	0.470	0.72
SILICON	MG/KG	0/1	1	0/1			84.400	84.400	1800
SILVER	MG/KG	5/6	6	5/6	5.900-8.300	7.36	0.430	0.430	NA

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
SODIUM	MG/KG	6/6	6	6/6	109.000-160.000	131.00			51.1
THALLIUM	MG/KG	0/6	6	0/6			0.210	0.470	0.58
VANADIUM	MG/KG	6/6	6	0/6	18.100-30.200	25.78			30.4
ZINC	MG/KG	6/6	6	2/6	32.900-89.000	57.48			59.6

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	8/8	8	2/8	2330.000-13200.000	8923.75			11900
ANTIMONY	MG/KG	0/7	7	0/7			0.920	3.300	NA
ARSENIC	MG/KG	8/8	8	0/8	2.300-7.500	5.49			8.20
BARIUM	MG/KG	8/8	8	2/8	20.200-140.000	81.51			95.7
BERYLLIUM	MG/KG	2/8	8	2/8	2.500-3.200	2.85	0.910	1.000	0.6
CADMIUM	MG/KG	2/5	5	2/5	1.100-1.800	1.45	1.000	1.200	0.870
CALCIUM	MG/KG	8/8	8	8/8	6910.000-115000.000	63326.25			4340
CHROMIUM	MG/KG	8/8	8	3/8	5.700-19.300	13.38			15.5
COBALT	MG/KG	7/8	8	0/8	8.400-11.800	9.74	3.700	3.700	14.2
COPPER	MG/KG	7/8	8	6/8	9.800-25.300	17.81	10.500	10.500	14.1
CYANIDE	MG/KG	0/7	7	0/7			0.260	0.310	0.270
IRON	MG/KG	8/8	8	5/8	7880.000-23400.000	19035.00			21700
LEAD	MG/KG	8/8	8	1/8	3.400-31.200	13.99			26.4
MAGNESIUM	MG/KG	8/8	8	8/8	4060.000-36400.000	17475.00			2780
MANGANESE	MG/KG	8/8	8	0/8	264.000-1120.000	563.75			1350
MERCURY	MG/KG	1/8	8	1/8	0.480-0.480	0.48	0.060	0.120	0.3
MOLYBDENUM	MG/KG	0/7	7	0/7			3.500	4.200	NA
NICKEL	MG/KG	5/8	8	3/8	4.900-26.300	19.36	12.300	28.200	20.9
POTASSIUM	MG/KG	8/8	8	2/8	361.000-1470.000	954.25			1230
SELENIUM	MG/KG	1/8	8	0/8	0.640-0.640	0.64	0.210	1.400	0.72
SILICON	MG/KG	4/7	7	0/7	46.400-101.000	74.88	98.500	228.000	1800
SILVER	MG/KG	2/8	8	2/8	1.500-2.200	1.85	0.210	0.500	NA

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	6/8	8	6/8	100.000-182.000	130.00	48.600	87.600	51.1
THALLIUM	MG/KG	2/8	8	0/8	0.280-0.490	0.39	0.210	0.250	0.58
VANADIUM	MG/KG	8/8	8	0/8	16.300-28.800	22.08			30.4
ZINC	MG/KG	8/8	8	4/8	38.800-90.600	63.51			59.6

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	6/6	6	0/6	8460.000-14700.000	11348.33			16100
ANTIMONY	MG/KG	0/5	5	0/5			0.920	3.400	NA
ARSENIC	MG/KG	6/6	6	0/6	3.100-8.200	5.47			9.57
BARIUM	MG/KG	6/6	6	4/6	67.600-164.000	118.03			119
BERYLLIUM	MG/KG	1/6	6	1/6	1.400-1.400	1.40	0.890	1.200	0.620
CADMIUM	MG/KG	0/3	3	0/3			1.100	1.300	0.910
CALCIUM	MG/KG	6/6	6	0/6	4090.000-119000.000	49285.00			150000
CHROMIUM	MG/KG	6/6	6	1/6	12.500-21.500	16.35			20.7
COBALT	MG/KG	6/6	6	0/6	8.100-11.500	9.62			15.7
COPPER	MG/KG	6/6	6	3/6	16.500-27.100	21.07			20.0
CYANIDE	MG/KG	0/6	6	0/6			0.280	0.330	.17
IRON	MG/KG	6/6	6	0/6	19000.000-29300.000	22800.00			30700
LEAD	MG/KG	6/6	6	3/6	11.400-18.400	15.25			15.6
MAGNESIUM	MG/KG	6/6	6	0/6	3040.000-23500.000	13078.33			42600
MANGANESE	MG/KG	6/6	6	0/6	261.000-699.000	387.83			1300
MERCURY	MG/KG	1/6	6	1/6	2.300-2.300	2.30	0.060	0.070	0.29
MOLYBDENUM	MG/KG	0/5	5	0/5			3.800	4.400	2.7
NICKEL	MG/KG	4/6	6	0/6	15.800-25.900	19.28	25.100	28.600	34.3
POTASSIUM	MG/KG	6/6	6	0/6	523.000-1190.000	958.00			1980
SELENIUM	MG/KG	1/6	6	1/6	0.810-0.810	0.81	0.230	1.100	NA
SILICON	MG/KG	2/5	5	0/5	73.600-90.400	82.00	75.800	181.000	1590
SILVER	MG/KG	1/6	6	1/6	1.000-1.000	1.00	0.230	0.520	NA

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	4/6	6	0/6	59.300-157.000	101.55	135.000	137.000	285
THALLIUM	MG/KG	0/6	6	0/6			0.220	0.260	0.49
VANADIUM	MG/KG	6/6	6	0/6	21.700-32.400	26.78			37.8
ZINC	MG/KG	6/6	6	1/6	51.100-129.000	76.53			82.0

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	11/11	11	1/11	10400.000-17300.000	13472.73			16100
ANTIMONY	MG/KG	0/7	7	0/7			0.970	5.200	NA
ARSENIC	MG/KG	11/11	11	6/11	4.900-17.300	9.98			9.57
BARIUM	MG/KG	11/11	11	4/11	74.700-223.000	115.70			119
BERYLLIUM	MG/KG	5/11	11	5/11	1.000-1.800	1.34	0.970	1.000	0.620
CADMIUM	MG/KG	2/6	6	2/6	1.200-4.100	2.65	1.200	1.300	0.910
CALCIUM	MG/KG	11/11	11	0/11	5040.000-92800.000	47805.46			150000
CHROMIUM	MG/KG	11/11	11	6/11	16.600-30.500	20.87			20.7
COBALT	MG/KG	10/11	11	5/11	10.500-23.600	15.99	8.600	8.600	15.7
COPPER	MG/KG	11/11	11	7/11	12.400-28.700	22.60			20.0
CYANIDE	MG/KG	1/11	11	1/11	0.460-0.460	0.46	0.260	0.310	.17
IRON	MG/KG	11/11	11	6/11	19200.000-33800.000	28472.73			30700
LEAD	MG/KG	11/11	11	4/11	8.300-25.800	14.67			15.6
MAGNESIUM	MG/KG	11/11	11	0/11	4650.000-27900.000	17578.18			42600
MANGANESE	MG/KG	11/11	11	2/11	337.000-1890.000	872.27			1300
MERCURY	MG/KG	0/11	11	0/11			0.060	0.170	0.29
MOLYBDENUM	MG/KG	0/11	11	0/11			1.700	4.300	2.7
NICKEL	MG/KG	11/11	11	8/11	22.000-42.800	35.06			34.3
POTASSIUM	MG/KG	11/11	11	1/11	1000.000-2520.000	1740.91			1980
SELENIUM	MG/KG	2/8	8	2/8	0.720-0.750	0.74	0.240	2.500	NA
SILICON	MG/KG	4/7	7	0/7	30.600-50.700	40.28	97.800	192.000	1590
SILVER	MG/KG	1/11	11	1/11	3.900-3.900	3.90	0.240	0.500	NA

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	8/11	11	0/11	106.000-246.000	148.50	111.000	209.000	285
THALLIUM	MG/KG	3/10	10	0/10	0.260-0.380	0.34	0.150	0.250	0.49
VANADIUM	MG/KG	11/11	11	0/11	21.800-36.800	29.28			37.8
ZINC	MG/KG	11/11	11	4/11	54.900-101.000	77.64			82.0

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	3/3	3	0/3	4050.000-13200.000	8006.67			16100
ANTIMONY	MG/KG	1/2	2	1/2	1.200-1.200	1.20	2.600	3.500	NA
ARSENIC	MG/KG	2/3	3	0/3	2.300-3.400	2.85	2.900	2.900	9.57
BARIUM	MG/KG	3/3	3	0/3	15.700-57.400	36.63			119
BERYLLIUM	MG/KG	2/3	3	2/3	1.400-2.200	1.80	0.950	0.950	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.200	1.300	0.910
CALCIUM	MG/KG	3/3	3	0/3	79100.000-124000.000	105366.67			150000
CHROMIUM	MG/KG	2/3	3	1/3	11.300-21.800	16.55	6.900	6.900	20.7
COBALT	MG/KG	1/3	3	1/3	18.100-18.100	18.10	6.400	9.000	15.7
COPPER	MG/KG	3/3	3	1/3	10.400-25.200	17.83			20.0
CYANIDE	MG/KG	0/3	3	0/3			0.300	0.310	.17
IRON	MG/KG	3/3	3	0/3	11600.000-25500.000	17100.00			30700
LEAD	MG/KG	3/3	3	0/3	5.700-12.100	8.53			15.6
MAGNESIUM	MG/KG	3/3	3	0/3	26200.000-40600.000	35200.00			42600
MANGANESE	MG/KG	3/3	3	0/3	380.000-443.000	414.00			1300
MERCURY	MG/KG	0/3	3	0/3			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/3	3	0/3			4.000	4.300	2.7
NICKEL	MG/KG	3/3	3	1/3	11.700-38.200	22.23			34.3
POTASSIUM	MG/KG	3/3	3	1/3	786.000-2890.000	1685.33			1980
SELENIUM	MG/KG	0/3	3	0/3			0.240	0.480	NA
SILICON	MG/KG	1/2	2	0/2	121.000-121.000	121.00	158.000	158.000	1590
SILVER	MG/KG	0/3	3	0/3			0.240	0.500	NA

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DRAFT

AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
SODIUM	MG/KG	3/3	3	0/3	127.000-215.000	164.00			285
THALLIUM	MG/KG	2/3	3	0/3	0.240-0.280	0.26	0.240	0.240	0.49
VANADIUM	MG/KG	3/3	3	0/3	17.400-25.800	22.83			37.8
ZINC	MG/KG	3/3	3	2/3	33.100-164.000	94.10			82.0

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/9	9	0/9			6.000	11.000	
2-BUTANONE	UG/KG	0/1	1	0/1			10.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			10.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			10.000	11.000	
ACETONE	UG/KG	1/9	9	1/9	14.000-14.000	14.00	10.000	28.000	
BENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
BROMOFORM	UG/KG	0/9	9	0/9			6.000	11.000	
BROMOMETHANE	UG/KG	0/9	9	0/9			10.000	11.000	
CARBON DISULFIDE	UG/KG	0/9	9	0/9			6.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/9	9	0/9			6.000	11.000	
CHLOROBENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
CHLOROETHANE	UG/KG	0/9	9	0/9			10.000	11.000	
CHLOROFORM	UG/KG	0/9	9	0/9			6.000	11.000	
CHLOROMETHANE	UG/KG	0/9	9	0/9			10.000	11.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			6.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
ETHYLBENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
METHYLENE CHLORIDE	UG/KG	4/9	9	4/9	3.000-36.000	14.25	8.000	11.000	
STYRENE	UG/KG	0/9	9	0/9			6.000	11.000	
TETRACHLOROETHENE	UG/KG	0/8	8	0/8			6.000	11.000	
TOLUENE	UG/KG	0/9	9	0/9			6.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			6.000	11.000	
TRICHLOROETHENE	UG/KG	0/9	9	0/9			6.000	11.000	
VINYL ACETATE	UG/KG	0/5	5	0/5			10.000	11.000	
VINYL CHLORIDE	UG/KG	0/9	9	0/9			10.000	11.000	
XYLENES, TOTAL	UG/KG	0/9	9	0/9			6.000	11.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			6.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			6.000	11.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	12.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	12.000	
ACETONE	UG/KG	1/2	2	1/2	5.000-5.000	5.00	21.000	21.000	
BENZENE	UG/KG	0/2	2	0/2			6.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
BROMOFORM	UG/KG	0/2	2	0/2			6.000	11.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			6.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			6.000	11.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			6.000	11.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			6.000	11.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	

AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			6.000	11.000	
METHYLENE CHLORIDE	UG/KG	1/2	2	1/2	6.000-6.000	6.00	6.000	6.000	
STYRENE	UG/KG	0/2	2	0/2			6.000	11.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			6.000	11.000	
TOLUENE	UG/KG	0/2	2	0/2			6.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	11.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	11.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			6.000	11.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/8	8	0/8			10.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/8	8	0/8			10.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/8	8	0/8			10.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			10.000	12.000	
ACETONE	UG/KG	1/8	8	1/8	100.000-100.000	100.00	10.000	40.000	
BENZENE	UG/KG	0/8	8	0/8			10.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
BROMOFORM	UG/KG	0/8	8	0/8			10.000	12.000	
BROMOMETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/8	8	0/8			10.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/8	8	0/8			10.000	12.000	
CHLOROBENZENE	UG/KG	0/8	8	0/8			10.000	12.000	
CHLOROETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
CHLOROFORM	UG/KG	0/8	8	0/8			10.000	12.000	
CHLOROMETHANE	UG/KG	0/8	8	0/8			10.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/8	8	0/8			10.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/8	8	0/8			10.000	12.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
ETHYLBENZENE	UG/KG	0/8	8	0/8			10.000	12.000	
METHYLENE CHLORIDE	UG/KG	5/8	8	5/8	2.000-100.000	25.40	11.000	12.000	
STYRENE	UG/KG	0/8	8	0/8			10.000	12.000	
TETRACHLOROETHENE	UG/KG	0/7	7	0/7			10.000	12.000	
TOLUENE	UG/KG	0/8	8	0/8			10.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/8	8	0/8			10.000	12.000	
TRICHLOROETHENE	UG/KG	0/8	8	0/8			10.000	12.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			10.000	12.000	
VINYL CHLORIDE	UG/KG	0/8	8	0/8			10.000	12.000	
XYLENES, TOTAL	UG/KG	0/8	8	0/8			10.000	12.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/6	6	0/6			11.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/6	6	0/6			11.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/6	6	0/6			11.000	13.000	
2-BUTANONE	UG/KG	1/1	1	1/1	13.000-13.000	13.00	11.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	13.000	
ACETONE	UG/KG	1/6	6	1/6	220.000-220.000	220.00	11.000	100.000	
BENZENE	UG/KG	0/6	6	0/6			11.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
BROMOFORM	UG/KG	0/6	6	0/6			11.000	13.000	
BROMOMETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
CARBON DISULFIDE	UG/KG	0/6	6	0/6			11.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/6	6	0/6			11.000	13.000	
CHLOROBENZENE	UG/KG	0/6	6	0/6			11.000	13.000	
CHLOROETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
CHLOROFORM	UG/KG	0/6	6	0/6			11.000	13.000	
CHLOROMETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			11.000	13.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
DIBROMOCHLOROMETHANE	UG/KG	0/6	6	0/6			11.000	13.000	
ETHYLBENZENE	UG/KG	0/6	6	0/6			11.000	13.000	
METHYLENE CHLORIDE	UG/KG	5/6	6	5/6	2.000-60.000	20.20	10.000	10.000	
STYRENE	UG/KG	0/6	6	0/6			11.000	13.000	
TETRACHLOROETHENE	UG/KG	0/5	5	0/5			11.000	13.000	
TOLUENE	UG/KG	0/6	6	0/6			11.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			11.000	13.000	
TRICHLOROETHENE	UG/KG	0/6	6	0/6			11.000	13.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			11.000	13.000	
VINYL CHLORIDE	UG/KG	0/6	6	0/6			11.000	13.000	
XYLENES, TOTAL	UG/KG	0/6	6	0/6			11.000	13.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	2/14	14	2/14	6.000-22.000	14.00	5.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/14	14	1/14	4.000-4.000	4.00	5.000	26.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/14	14	0/14			5.000	26.000	
1,1-DICHLOROETHANE	UG/KG	3/14	14	3/14	5.000-46.000	21.67	5.000	13.000	
1,1-DICHLOROETHENE	UG/KG	1/14	14	1/14	2.000-2.000	2.00	5.000	26.000	
1,2-DICHLOROETHANE	UG/KG	0/14	14	0/14			5.000	26.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/14	14	0/14			5.000	26.000	
1,2-DICHLOROPROPANE	UG/KG	0/14	14	0/14			5.000	26.000	
2-BUTANONE	UG/KG	5/7	7	5/7	23.000-200.000	96.80	10.000	13.000	
2-HEXANONE	UG/KG	0/4	4	0/4			10.000	52.000	
4-METHYL-2-PENTANONE	UG/KG	0/4	4	0/4			10.000	52.000	
ACETONE	UG/KG	5/14	14	5/14	29.000-190.000	106.20	10.000	52.000	
BENZENE	UG/KG	0/14	14	0/14			5.000	26.000	
BROMODICHLOROMETHANE	UG/KG	0/14	14	0/14			5.000	26.000	
BROMOFORM	UG/KG	0/14	14	0/14			5.000	26.000	
BROMOMETHANE	UG/KG	0/14	14	0/14			10.000	52.000	
CARBON DISULFIDE	UG/KG	0/14	14	0/14			5.000	26.000	
CARBON TETRACHLORIDE	UG/KG	0/14	14	0/14			5.000	26.000	
CHLOROBENZENE	UG/KG	0/14	14	0/14			5.000	26.000	
CHLOROETHANE	UG/KG	0/14	14	0/14			10.000	52.000	
CHLOROFORM	UG/KG	0/14	14	0/14			5.000	26.000	
CHLOROMETHANE	UG/KG	0/14	14	0/14			10.000	52.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/14	14	0/14			5.000	26.000	
DIBROMOCHLOROMETHANE	UG/KG	0/14	14	0/14			5.000	26.000	
ETHYLBENZENE	UG/KG	1/14	14	1/14	3.000-3.000	3.00	5.000	26.000	
METHYLENE CHLORIDE	UG/KG	6/13	13	6/13	1.000-86.000	32.50	12.000	78.000	
STYRENE	UG/KG	0/14	14	0/14			5.000	26.000	
TETRACHLOROETHENE	UG/KG	1/14	14	1/14	3.000-3.000	3.00	5.000	26.000	
TOLUENE	UG/KG	2/14	14	2/14	2.000-21.000	11.50	5.000	26.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/14	14	0/14			5.000	26.000	
TRICHLOROETHENE	UG/KG	0/14	14	0/14			5.000	26.000	
VINYL ACETATE	UG/KG	0/8	8	0/8			10.000	52.000	
VINYL CHLORIDE	UG/KG	0/14	14	0/14			10.000	52.000	
XYLENES, TOTAL	UG/KG	2/14	14	2/14	5.000-17.000	11.00	5.000	26.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1-DICHLOROETHANE	UG/KG	2/3	3	2/3	2.000-20.000	11.00	13.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			12.000	13.000	
ACETONE	UG/KG	1/3	3	1/3	140.000-140.000	140.00	23.000	35.000	
BENZENE	UG/KG	0/3	3	0/3			12.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
BROMOFORM	UG/KG	0/3	3	0/3			12.000	13.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
CARBON DISULFIDE	UG/KG	1/3	3	1/3	3.000-3.000	3.00	12.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROFORM	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			12.000	13.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
METHYLENE CHLORIDE	UG/KG	2/3	3	2/3	27.000-100.000	63.50	12.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			12.000	13.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
TOLUENE	UG/KG	0/3	3	0/3			12.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	13.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	13.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			12.000	13.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			12.000	13.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/9	9	0/9			340.000	740.000	
1,2-DICHLOROBENZENE	UG/KG	0/9	9	0/9			340.000	740.000	
1,3-DICHLOROBENZENE	UG/KG	0/9	9	0/9			340.000	740.000	
1,4-DICHLOROBENZENE	UG/KG	0/9	9	0/9			340.000	740.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/9	9	0/9			860.000	3600.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	
2,4-DICHLOROPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	
2,4-DIMETHYLPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	
2,4-DINITROPHENOL	UG/KG	0/9	9	0/9			860.000	3600.000	
2,4-DINITROTOLUENE	UG/KG	0/9	9	0/9			340.000	740.000	
2,6-DINITROTOLUENE	UG/KG	0/9	9	0/9			340.000	740.000	
2-CHLORONAPHTHALENE	UG/KG	0/9	9	0/9			340.000	740.000	
2-CHLOROPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	
2-METHYLNAPHTHALENE	UG/KG	0/9	9	0/9			340.000	740.000	
2-METHYLPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	
2-NITROANILINE	UG/KG	0/9	9	0/9			860.000	3600.000	
2-NITROPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/9	9	0/9			340.000	1500.000	
3-NITROANILINE	NONE	0/8	8	0/8			860.000	3600.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/9	9	0/9			860.000	3600.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/9	9	0/9			340.000	740.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/9	9	0/9			340.000	740.000	
4-METHYLPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	
4-NITROANILINE	UG/KG	0/9	9	0/9			860.000	3600.000	
4-NITROPHENOL	UG/KG	0/9	9	0/9			860.000	3600.000	
ACENAPHTHENE	UG/KG	1/9	9	1/9	150.000-150.000	150.00	340.000	740.000	
ACENAPHTHYLENE	UG/KG	0/9	9	0/9			340.000	740.000	
ANTHRACENE	UG/KG	2/9	9	2/9	33.000-120.000	76.50	350.000	740.000	
BENZO(A)ANTHRACENE	UG/KG	4/9	9	4/9	67.000-710.000	301.75	370.000	740.000	
BENZO(A)PYRENE	UG/KG	4/9	9	4/9	40.000-600.000	245.00	370.000	740.000	
BENZO(B)FLUORANTHENE	UG/KG	4/9	9	4/9	53.000-670.000	305.75	370.000	740.000	
BENZO(G,H,I)PERYLENE	UG/KG	3/9	9	3/9	80.000-290.000	186.67	340.000	740.000	
BENZO(K)FLUORANTHENE	UG/KG	4/9	9	4/9	63.000-800.000	325.75	370.000	740.000	
BENZOIC ACID	UG/KG	0/9	9	0/9			860.000	3600.000	
BENZYL ALCOHOL	UG/KG	0/9	9	0/9			340.000	740.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/9	9	0/9			340.000	740.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/9	9	0/9			340.000	740.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/9	9	0/9			340.000	740.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	3/9	9	3/9	36.000-200.000	138.67	350.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/9	9	0/9			340.000	740.000	
CARBAZOLE	UG/KG	2/8	8	2/8	46.000-48.000	47.00	340.000	380.000	
CHRYSENE	UG/KG	4/9	9	4/9	76.000-830.000	386.50	370.000	740.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/9	9	2/9	48.000-140.000	94.00	360.000	2400.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/9	9	0/9			340.000	740.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/9	9	2/9	59.000-74.000	66.50	340.000	740.000	
DIBENZOFURAN	UG/KG	0/9	9	0/9			340.000	740.000	
DIETHYL PHTHALATE	UG/KG	0/9	9	0/9			340.000	740.000	
DIMETHYL PHTHALATE	UG/KG	0/9	9	0/9			340.000	740.000	
FLUORANTHENE	UG/KG	4/9	9	4/9	210.000-1500.000	692.50	370.000	740.000	
FLUORENE	UG/KG	1/9	9	1/9	62.000-62.000	62.00	340.000	740.000	
HEXACHLOROBENZENE	UG/KG	0/9	9	0/9			340.000	740.000	
HEXACHLOROBUTADIENE	UG/KG	0/9	9	0/9			340.000	740.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/9	9	0/9			340.000	740.000	
HEXACHLOROETHANE	UG/KG	0/9	9	0/9			340.000	740.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	3/9	9	3/9	110.000-470.000	266.67	340.000	740.000	
ISOPHORONE	UG/KG	0/9	9	0/9			340.000	740.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/9	9	0/9			340.000	740.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/9	9	0/9			340.000	740.000	
NAPHTHALENE	UG/KG	0/9	9	0/9			340.000	740.000	
NITROBENZENE	UG/KG	0/9	9	0/9			340.000	740.000	
P-CHLOROANILINE	UG/KG	0/9	9	0/9			340.000	740.000	
PENTACHLOROPHENOL	UG/KG	0/9	9	0/9			340.000	740.000	
PHENANTHRENE	UG/KG	4/9	9	4/9	120.000-700.000	392.50	860.000	3600.000	
PHENOL	UG/KG	0/9	9	0/9			370.000	740.000	
PYRENE	UG/KG	4/9	9	4/9	140.000-1200.000	540.00	340.000	740.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
TRIBUTYL PHOSPHATE	UG/KG	1/1	1	1/1	1200.000-1200.000	1200.00			

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	780.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	780.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	780.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	780.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			900.000	3800.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			900.000	3800.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			360.000	780.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			360.000	780.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			360.000	780.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			360.000	780.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			900.000	3800.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			360.000	1600.000	
3-NITROANILINE	NONE	0/1	1	0/1			900.000	3800.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			900.000	3800.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			360.000	780.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			360.000	780.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			900.000	3800.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			900.000	3800.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			360.000	780.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			360.000	780.000	
ANTHRACENE	UG/KG	0/2	2	0/2			360.000	780.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			360.000	780.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			360.000	780.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			360.000	780.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			360.000	780.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			360.000	780.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			780.000	900.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			360.000	780.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			360.000	780.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			360.000	780.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			360.000	780.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/2	2	0/2			360.000	780.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	780.000	
CARBAZOLE	UG/KG	0/1	1	0/1			360.000	360.000	
CHRYSENE	UG/KG	0/2	2	0/2			360.000	780.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	780.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	780.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			360.000	780.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			360.000	780.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	780.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	780.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			360.000	780.000	
FLUORENE	UG/KG	0/2	2	0/2			360.000	780.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	780.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			360.000	780.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			360.000	780.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			360.000	780.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			360.000	780.000	
ISOPHORONE	UG/KG	0/2	2	0/2			360.000	780.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			360.000	780.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			360.000	780.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			360.000	780.000	
NITROBENZENE	UG/KG	0/2	2	0/2			360.000	780.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			360.000	780.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			900.000	3800.000	
PHENOL	UG/KG	0/2	2	0/2			360.000	780.000	
PYRENE	UG/KG	0/2	2	0/2			360.000	780.000	

AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
TRIBUTYL PHOSPHATE	UG/KG	1/1	1	1/1	170.000-170.000	170.00			

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/8	8	0/8			340.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/8	8	0/8			340.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/8	8	0/8			340.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/8	8	0/8			340.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/7	7	0/7			860.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/7	7	0/7			340.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/7	7	0/7			340.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/7	7	0/7			340.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/7	7	0/7			860.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/8	8	0/8			340.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/8	8	0/8			340.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/8	8	0/8			340.000	410.000	
2-CHLOROPHENOL	UG/KG	0/7	7	0/7			340.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/8	8	0/8			340.000	410.000	
2-METHYLPHENOL	UG/KG	0/7	7	0/7			340.000	410.000	
2-NITROANILINE	UG/KG	0/8	8	0/8			860.000	1000.000	
2-NITROPHENOL	UG/KG	0/7	7	0/7			340.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/8	8	0/8			340.000	410.000	
3-NITROANILINE	NONE	0/8	8	0/8			860.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/7	7	0/7			860.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/8	8	0/8			340.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/7	7	0/7			340.000	410.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/8	8	0/8			340.000	410.000	
4-METHYLPHENOL	UG/KG	0/7	7	0/7			340.000	410.000	
4-NITROANILINE	UG/KG	0/8	8	0/8			860.000	1000.000	
4-NITROPHENOL	UG/KG	0/7	7	0/7			860.000	1000.000	
ACENAPHTHENE	UG/KG	0/8	8	0/8			340.000	410.000	
ACENAPHTHYLENE	UG/KG	0/8	8	0/8			340.000	410.000	
ANTHRACENE	UG/KG	0/8	8	0/8			340.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	3/8	8	3/8	40.000-85.000	68.67	340.000	410.000	
BENZO(A)PYRENE	UG/KG	2/8	8	2/8	52.000-84.000	68.00	340.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	3/8	8	3/8	43.000-100.000	75.33	340.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/8	8	2/8	64.000-66.000	65.00	340.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	3/8	8	3/8	40.000-130.000	96.67	340.000	410.000	
BENZOIC ACID	UG/KG	0/7	7	0/7			860.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/8	8	0/8			340.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/8	8	0/8			340.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/8	8	0/8			340.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/8	8	0/8			340.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	3/8	8	3/8	41.000-260.000	133.33	370.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/8	8	0/8			340.000	410.000	
CARBAZOLE	UG/KG	0/8	8	0/8			340.000	410.000	
CHRYSENE	UG/KG	3/8	8	3/8	58.000-140.000	106.00	340.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/8	8	1/8	120.000-120.000	120.00	370.000	2300.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/8	8	0/8			340.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/8	8	0/8			340.000	410.000	
DIBENZOFURAN	UG/KG	0/8	8	0/8			340.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/8	8	0/8			340.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/8	8	0/8			340.000	410.000	
FLUORANTHENE	UG/KG	3/8	8	3/8	100.000-290.000	196.67	340.000	410.000	
FLUORENE	UG/KG	0/8	8	0/8			340.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/8	8	0/8			340.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/8	8	0/8			340.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/8	8	0/8			340.000	410.000	
HEXACHLOROETHANE	UG/KG	0/8	8	0/8			340.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/8	8	2/8	68.000-83.000	75.50	340.000	410.000	
ISOPHORONE	UG/KG	0/8	8	0/8			340.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/8	8	0/8			340.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/8	8	0/8			340.000	410.000	
NAPHTHALENE	UG/KG	0/8	8	0/8			340.000	410.000	
NITROBENZENE	UG/KG	0/8	8	0/8			340.000	410.000	
P-CHLOROANILINE	UG/KG	0/8	8	0/8			340.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/7	7	0/7			860.000	1000.000	
PHENANTHRENE	UG/KG	3/8	8	3/8	62.000-220.000	123.00	340.000	410.000	
PHENOL	UG/KG	0/7	7	0/7			340.000	410.000	
PYRENE	UG/KG	3/8	8	3/8	78.000-210.000	142.67	340.000	410.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/6	6	0/6			370.000	430.000	
1,2-DICHLOROBENZENE	UG/KG	0/6	6	0/6			370.000	430.000	
1,3-DICHLOROBENZENE	UG/KG	0/6	6	0/6			370.000	430.000	
1,4-DICHLOROBENZENE	UG/KG	0/6	6	0/6			370.000	430.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/6	6	0/6			930.000	1100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/6	6	0/6			370.000	430.000	
2,4-DICHLOROPHENOL	UG/KG	0/6	6	0/6			370.000	430.000	
2,4-DIMETHYLPHENOL	UG/KG	0/6	6	0/6			370.000	430.000	
2,4-DINITROPHENOL	UG/KG	0/6	6	0/6			930.000	1100.000	
2,4-DINITROTOLUENE	UG/KG	0/6	6	0/6			370.000	430.000	
2,6-DINITROTOLUENE	UG/KG	0/6	6	0/6			370.000	430.000	
2-CHLORONAPHTHALENE	UG/KG	0/6	6	0/6			370.000	430.000	
2-CHLOROPHENOL	UG/KG	0/6	6	0/6			370.000	430.000	
2-METHYLNAPHTHALENE	UG/KG	0/6	6	0/6			370.000	430.000	
2-METHYLPHENOL	UG/KG	0/6	6	0/6			370.000	430.000	
2-NITROANILINE	UG/KG	0/6	6	0/6			930.000	1100.000	
2-NITROPHENOL	UG/KG	0/6	6	0/6			370.000	430.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/6	6	0/6			370.000	430.000	
3-NITROANILINE	NONE	0/6	6	0/6			930.000	1100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/6	6	0/6			930.000	1100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/6	6	0/6			370.000	430.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/6	6	0/6			370.000	430.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/6	6	0/6			370.000	430.000	
4-METHYLPHENOL	UG/KG	0/6	6	0/6			370.000	430.000	
4-NITROANILINE	UG/KG	0/6	6	0/6			930.000	1100.000	
4-NITROPHENOL	UG/KG	0/6	6	0/6			930.000	1100.000	
ACENAPHTHENE	UG/KG	0/6	6	0/6			370.000	430.000	
ACENAPHTHYLENE	UG/KG	0/6	6	0/6			370.000	430.000	
ANTHRACENE	UG/KG	0/6	6	0/6			370.000	430.000	
BENZO(A)ANTHRACENE	UG/KG	0/6	6	0/6			370.000	430.000	
BENZO(A)PYRENE	UG/KG	0/6	6	0/6			370.000	430.000	
BENZO(B)FLUORANTHENE	UG/KG	0/6	6	0/6			45.000	430.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/6	6	0/6			370.000	430.000	
BENZO(K)FLUORANTHENE	UG/KG	0/6	6	0/6			38.000	430.000	
BENZOIC ACID	UG/KG	0/6	6	0/6			930.000	1100.000	
BENZYL ALCOHOL	UG/KG	0/6	6	0/6			370.000	430.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/6	6	0/6			370.000	430.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/6	6	0/6			370.000	430.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/6	6	0/6			370.000	430.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	3/6	6	3/6	52.000-470.000	198.00	380.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/6	6	0/6			370.000	430.000	
CARBAZOLE	UG/KG	0/6	6	0/6			370.000	430.000	
CHRYSENE	UG/KG	0/6	6	0/6			370.000	430.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/6	6	0/6			370.000	430.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/6	6	0/6			370.000	430.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/6	6	0/6			370.000	430.000	
DIBENZOFURAN	UG/KG	0/6	6	0/6			370.000	430.000	
DIETHYL PHTHALATE	UG/KG	0/6	6	0/6			370.000	430.000	
DIMETHYL PHTHALATE	UG/KG	0/6	6	0/6			370.000	430.000	
FLUORANTHENE	UG/KG	2/6	6	2/6	60.000-120.000	90.00	380.000	430.000	
FLUORENE	UG/KG	0/6	6	0/6			370.000	430.000	
HEXACHLOROBENZENE	UG/KG	0/6	6	0/6			370.000	430.000	
HEXACHLOROBUTADIENE	UG/KG	0/6	6	0/6			370.000	430.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/6	6	0/6			370.000	430.000	
HEXACHLOROETHANE	UG/KG	0/6	6	0/6			370.000	430.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/6	6	0/6			370.000	430.000	
ISOPHORONE	UG/KG	0/6	6	0/6			370.000	430.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/6	6	0/6			370.000	430.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/6	6	0/6			370.000	430.000	
NAPHTHALENE	UG/KG	0/6	6	0/6			370.000	430.000	
NITROBENZENE	UG/KG	0/6	6	0/6			370.000	430.000	
P-CHLOROANILINE	UG/KG	0/6	6	0/6			370.000	430.000	
PENTACHLOROPHENOL	UG/KG	0/6	6	0/6			930.000	1100.000	
PHENANTHRENE	UG/KG	1/6	6	1/6	39.000-39.000	39.00	88.000	430.000	
PHENOL	UG/KG	0/6	6	0/6			370.000	430.000	
PYRENE	UG/KG	2/6	6	2/6	45.000-87.000	66.00	380.000	430.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/10	10	0/10			390.000	720.000	
1,2-DICHLOROBENZENE	UG/KG	0/10	10	0/10			390.000	720.000	
1,3-DICHLOROBENZENE	UG/KG	0/10	10	0/10			390.000	720.000	
1,4-DICHLOROBENZENE	UG/KG	0/10	10	0/10			390.000	720.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/10	10	0/10			980.000	3500.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/10	10	0/10			390.000	720.000	
2,4-DICHLOROPHENOL	UG/KG	0/10	10	0/10			390.000	720.000	
2,4-DIMETHYLPHENOL	UG/KG	0/10	10	0/10			390.000	720.000	
2,4-DINITROPHENOL	UG/KG	0/10	10	0/10			980.000	3500.000	
2,4-DINITROTOLUENE	UG/KG	0/10	10	0/10			390.000	720.000	
2,6-DINITROTOLUENE	UG/KG	0/10	10	0/10			390.000	720.000	
2-CHLORONAPHTHALENE	UG/KG	0/10	10	0/10			390.000	720.000	
2-CHLOROPHENOL	UG/KG	0/10	10	0/10			390.000	720.000	
2-METHYLNAPHTHALENE	UG/KG	0/10	10	0/10			390.000	720.000	
2-METHYLPHENOL	UG/KG	0/10	10	0/10			390.000	720.000	
2-NITROANILINE	UG/KG	0/10	10	0/10			980.000	3500.000	
2-NITROPHENOL	UG/KG	0/10	10	0/10			390.000	720.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/11	11	0/11			390.000	1400.000	
3-NITROANILINE	NONE	0/10	10	0/10			980.000	3500.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/10	10	0/10			980.000	3500.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/10	10	0/10			390.000	720.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/10	10	0/10			390.000	720.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/10	10	0/10			390.000	720.000	
4-METHYLPHENOL	UG/KG	0/10	10	0/10			390.000	720.000	
4-NITROANILINE	UG/KG	0/10	10	0/10			980.000	3500.000	
4-NITROPHENOL	UG/KG	0/10	10	0/10			980.000	3500.000	
ACENAPHTHENE	UG/KG	0/10	10	0/10			390.000	720.000	
ACENAPHTHYLENE	UG/KG	0/10	10	0/10			390.000	720.000	
ANTHRACENE	UG/KG	0/11	11	0/11			390.000	720.000	
BENZO(A)ANTHRACENE	UG/KG	0/11	11	0/11			390.000	720.000	
BENZO(A)PYRENE	UG/KG	0/11	11	0/11			390.000	720.000	
BENZO(B)FLUORANTHENE	UG/KG	0/11	11	0/11			390.000	720.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/11	11	0/11			390.000	720.000	
BENZO(K)FLUORANTHENE	UG/KG	0/11	11	0/11			390.000	720.000	
BENZOIC ACID	UG/KG	0/10	10	0/10			980.000	3500.000	
BENZYL ALCOHOL	UG/KG	0/10	10	0/10			390.000	720.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/10	10	0/10			390.000	720.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/10	10	0/10			390.000	720.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/10	10	0/10			390.000	720.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	4/11	11	4/11	52.000-170.000	103.00	390.000	720.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/11	11	0/11			390.000	720.000	
CARBAZOLE	UG/KG	0/10	10	0/10			390.000	420.000	
CHRYSENE	UG/KG	0/11	11	0/11			390.000	720.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/11	11	1/11	190.000-190.000	190.00	390.000	720.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/11	11	0/11			390.000	720.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/11	11	0/11			390.000	720.000	
DIBENZOFURAN	UG/KG	0/10	10	0/10			390.000	720.000	
DIETHYL PHTHALATE	UG/KG	0/10	10	0/10			390.000	720.000	
DIMETHYL PHTHALATE	UG/KG	0/10	10	0/10			390.000	720.000	
FLUORANTHENE	UG/KG	1/11	11	1/11	81.000-81.000	81.00	390.000	420.000	
FLUORENE	UG/KG	0/10	10	0/10			390.000	720.000	
HEXACHLOROBENZENE	UG/KG	0/10	10	0/10			390.000	720.000	
HEXACHLOROBUTADIENE	UG/KG	0/10	10	0/10			390.000	720.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/10	10	0/10			390.000	720.000	
HEXACHLOROETHANE	UG/KG	0/10	10	0/10			390.000	720.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/11	11	0/11			390.000	720.000	
ISOPHORONE	UG/KG	0/10	10	0/10			390.000	720.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/10	10	0/10			390.000	720.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/10	10	0/10			390.000	720.000	
NAPHTHALENE	UG/KG	0/10	10	0/10			390.000	720.000	
NITROBENZENE	UG/KG	0/10	10	0/10			390.000	720.000	
P-CHLOROANILINE	UG/KG	0/10	10	0/10			390.000	720.000	
PENTACHLOROPHENOL	UG/KG	0/10	10	0/10			980.000	3500.000	
PHENANTHRENE	UG/KG	1/11	11	1/11	88.000-88.000	88.00	390.000	420.000	
PHENOL	UG/KG	0/10	10	0/10			390.000	720.000	
PYRENE	UG/KG	0/11	11	0/11			390.000	720.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			990.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			990.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			400.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			400.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			400.000	420.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			400.000	420.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			990.000	1000.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			400.000	420.000	
3-NITROANILINE	NONE	0/3	3	0/3			990.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			990.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			400.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			400.000	420.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			990.000	1000.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			990.000	1000.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			400.000	420.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			400.000	420.000	
ANTHRACENE	UG/KG	0/3	3	0/3			400.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/3	3	0/3			400.000	420.000	
BENZO(A)PYRENE	UG/KG	0/3	3	0/3			400.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/3	3	0/3			400.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			400.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/3	3	0/3			400.000	420.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			990.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			400.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			400.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			400.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			400.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/3	3	1/3	180.000-180.000	180.00	400.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	420.000	
CARBAZOLE	UG/KG	0/3	3	0/3			400.000	420.000	
CHRYSENE	UG/KG	0/3	3	0/3			400.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	420.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			400.000	420.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			400.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	420.000	
FLUORANTHENE	UG/KG	0/3	3	0/3			400.000	420.000	
FLUORENE	UG/KG	0/3	3	0/3			400.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			400.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			400.000	420.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			400.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			400.000	420.000	
ISOPHORONE	UG/KG	0/3	3	0/3			400.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			400.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			400.000	420.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			400.000	420.000	
NITROBENZENE	UG/KG	0/3	3	0/3			400.000	420.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			400.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
PHENANTHRENE	UG/KG	0/3	3	0/3			990.000	1000.000	
PHENOL	UG/KG	0/3	3	0/3			400.000	420.000	
PYRENE	UG/KG	0/3	3	0/3			400.000	420.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/9	9	0/9			3.400	180.000	
4,4'-DDE	UG/KG	0/9	9	0/9			3.400	180.000	
4,4'-DDT	UG/KG	0/9	9	0/9			3.400	180.000	
ALDRIN	UG/KG	0/9	9	0/9			1.800	90.000	
ALPHA-BHC	UG/KG	0/9	9	0/9			1.800	90.000	
ALPHA-CHLORDANE	UG/KG	0/9	9	0/9			1.800	900.000	
AROCLOR-1016	UG/KG	0/9	9	0/9			34.000	900.000	
AROCLOR-1221	UG/KG	0/9	9	0/9			69.000	900.000	
AROCLOR-1232	UG/KG	0/9	9	0/9			34.000	900.000	
AROCLOR-1242	UG/KG	0/9	9	0/9			34.000	900.000	
AROCLOR-1248	UG/KG	0/9	9	0/9			34.000	900.000	
AROCLOR-1254	UG/KG	5/9	9	5/9	240.000-14000.000	3104.00	34.000	38.000	
AROCLOR-1260	UG/KG	0/9	9	0/9			34.000	1800.000	
BETA-BHC	UG/KG	0/9	9	0/9			1.800	90.000	
DELTA-BHC	UG/KG	0/9	9	0/9			1.800	90.000	
DIELDRIN	UG/KG	0/9	9	0/9			3.400	180.000	
ENDOSULFAN II	UG/KG	0/9	9	0/9			3.400	180.000	
ENDOSULFAN SULFATE	UG/KG	0/9	9	0/9			3.400	180.000	
ENDOSULFAN-I	UG/KG	0/9	9	0/9			1.800	90.000	
ENDRIN	UG/KG	0/9	9	0/9			3.400	180.000	
ENDRIN ALDEHYDE	UG/KG	0/8	8	0/8			3.400	3.800	
ENDRIN KETONE	UG/KG	0/9	9	0/9			3.400	180.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/9	9	0/9			1.800	90.000	
GAMMA-CHLORDANE	UG/KG	0/9	9	0/9			1.800	900.000	
HEPTACHLOR	UG/KG	0/9	9	0/9			1.800	90.000	
HEPTACHLOR EPOXIDE	UG/KG	0/9	9	0/9			1.800	90.000	
METHOXYCHLOR	UG/KG	0/9	9	0/9			18.000	900.000	
TOXAPHENE	UG/KG	0/9	9	0/9			180.000	1800.000	

AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.500	19.000	
4,4'-DDE	UG/KG	0/2	2	0/2			3.600	19.000	
4,4'-DDT	UG/KG	0/2	2	0/2			3.600	19.000	
ALDRIN	UG/KG	0/2	2	0/2			1.800	9.400	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.800	9.400	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	94.000	
AROCLOR-1016	UG/KG	0/2	2	0/2			35.000	94.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			72.000	94.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			35.000	94.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			35.000	94.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			35.000	94.000	
AROCLOR-1254	UG/KG	1/2	2	1/2	940.000-940.000	940.00	190.000	190.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			35.000	190.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.800	9.400	
DELTA-BHC	UG/KG	0/2	2	0/2			1.800	9.400	
DIELDRIN	UG/KG	0/2	2	0/2			3.600	19.000	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.600	19.000	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.500	19.000	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.800	9.400	
ENDRIN	UG/KG	0/1	1	0/1			3.500	19.000	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.500	3.500	
ENDRIN KETONE	UG/KG						3.500	19.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.800	9.400	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	94.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.800	9.400	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.800	9.400	
METHOXYCHLOR	UG/KG	0/2	2	0/2			18.000	94.000	
TOXAPHENE	UG/KG	0/2	2	0/2			180.000	190.000	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/8	8	0/8			3.400	4.100	
4,4'-DDE	UG/KG	0/8	8	0/8			3.400	4.100	
4,4'-DDT	UG/KG	0/8	8	0/8			3.400	4.100	
ALDRIN	UG/KG	0/8	8	0/8			1.800	2.100	
ALPHA-BHC	UG/KG	0/8	8	0/8			1.800	2.100	
ALPHA-CHLORDANE	UG/KG	0/8	8	0/8			1.800	2.100	
AROCLOR-1016	UG/KG	0/8	8	0/8			34.000	41.000	
AROCLOR-1221	UG/KG	0/8	8	0/8			70.000	83.000	
AROCLOR-1232	UG/KG	0/8	8	0/8			34.000	41.000	
AROCLOR-1242	UG/KG	0/8	8	0/8			34.000	41.000	
AROCLOR-1248	UG/KG	0/8	8	0/8			34.000	41.000	
AROCLOR-1254	UG/KG	2/8	8	2/8	2800.000-4000.000	3400.00	34.000	41.000	
AROCLOR-1260	UG/KG	0/8	8	0/8			34.000	41.000	
BETA-BHC	UG/KG	0/8	8	0/8			1.800	2.100	
DELTA-BHC	UG/KG	0/8	8	0/8			1.800	2.100	
DIELDRIN	UG/KG	0/8	8	0/8			3.400	4.100	
ENDOSULFAN II	UG/KG	0/8	8	0/8			3.400	4.100	
ENDOSULFAN SULFATE	UG/KG	0/8	8	0/8			3.400	4.100	
ENDOSULFAN-I	UG/KG	0/8	8	0/8			1.800	2.100	
ENDRIN	UG/KG	0/8	8	0/8			3.400	4.100	
ENDRIN ALDEHYDE	UG/KG	0/8	8	0/8			3.400	4.100	
ENDRIN KETONE	UG/KG	0/8	8	0/8			3.400	4.100	

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AREA: Plant 2/3 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/8	8	0/8			1.800	2.100	
GAMMA-CHLORDANE	UG/KG	0/8	8	0/8			1.800	2.100	
HEPTACHLOR	UG/KG	0/8	8	0/8			1.800	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/8	8	0/8			1.800	2.100	
METHOXYCHLOR	UG/KG	0/8	8	0/8			18.000	21.000	
TOXAPHENE	UG/KG	0/8	8	0/8			180.000	210.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/6	5	0/6			3.700	4.300	
4,4'-DDE	UG/KG	0/6	5	0/6			3.700	4.300	
4,4'-DDT	UG/KG	0/6	5	0/6			3.700	4.300	
ALDRIN	UG/KG	0/6	5	0/6			1.900	2.200	
ALPHA-BHC	UG/KG	0/6	5	0/6			1.900	2.200	
ALPHA-CHLORDANE	UG/KG	0/6	5	0/6			1.900	2.200	
AROCLOR-1016	UG/KG	0/6	5	0/6			37.000	43.000	
AROCLOR-1221	UG/KG	0/6	5	0/6			74.000	87.000	
AROCLOR-1232	UG/KG	0/6	5	0/6			37.000	43.000	
AROCLOR-1242	UG/KG	0/6	5	0/6			37.000	43.000	
AROCLOR-1248	UG/KG	0/6	5	0/6			37.000	43.000	
AROCLOR-1254	UG/KG	2/6	5	2/6	120.000-740.000	430.00	38.000	43.000	
AROCLOR-1260	UG/KG	0/6	5	0/6			37.000	43.000	
BETA-BHC	UG/KG	0/6	5	0/6			1.900	2.200	
DELTA-BHC	UG/KG	0/6	5	0/6			1.900	2.200	
DIELDRIN	UG/KG	0/6	5	0/6			3.700	4.300	
ENDOSULFAN II	UG/KG	0/6	5	0/6			3.700	4.300	
ENDOSULFAN SULFATE	UG/KG	0/6	5	0/6			3.700	4.300	
ENDOSULFAN-I	UG/KG	0/6	5	0/6			1.900	2.200	
ENDRIN	UG/KG	0/6	5	0/6			3.700	4.300	
ENDRIN ALDEHYDE	UG/KG	0/6	5	0/6			3.700	4.300	
ENDRIN KETONE	UG/KG	0/6	5	0/6			3.700	4.300	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/6	5	0/6			1.900	2.200	
GAMMA-CHLORDANE	UG/KG	0/6	5	0/6			1.900	2.200	
HEPTACHLOR	UG/KG	0/6	5	0/6			1.900	2.200	
HEPTACHLOR EPOXIDE	UG/KG	0/6	5	0/6			1.900	2.200	
METHOXYCHLOR	UG/KG	0/6	5	0/6			19.000	22.000	
TOXAPHENE	UG/KG	0/6	5	0/6			190.000	220.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/11	11	0/11			3.900	700.000	
4,4'-DDE	UG/KG	0/11	11	0/11			3.900	700.000	
4,4'-DDT	UG/KG	0/11	11	0/11			3.900	700.000	
ALDRIN	UG/KG	0/11	11	0/11			2.000	350.000	
ALPHA-BHC	UG/KG	0/11	11	0/11			2.000	350.000	
ALPHA-CHLORDANE	UG/KG	0/11	11	0/11			2.000	3500.000	
AROCLOR-1016	UG/KG	0/11	11	0/11			39.000	3500.000	
AROCLOR-1221	UG/KG	0/11	11	0/11			79.000	3500.000	
AROCLOR-1232	UG/KG	0/11	11	0/11			39.000	3500.000	
AROCLOR-1242	UG/KG	0/11	11	0/11			39.000	3500.000	
AROCLOR-1248	UG/KG	0/11	11	0/11			39.000	3500.000	
AROCLOR-1254	UG/KG	2/11	11	2/11	160.000-350.000	255.00	39.000	7000.000	
AROCLOR-1260	UG/KG	0/11	11	0/11			39.000	7000.000	
BETA-BHC	UG/KG	0/11	11	0/11			2.000	350.000	
DELTA-BHC	UG/KG	0/11	11	0/11			2.000	350.000	
DIELDRIN	UG/KG	0/11	11	0/11			3.900	700.000	
ENDOSULFAN II	UG/KG	0/11	11	0/11			3.900	700.000	
ENDOSULFAN SULFATE	UG/KG	0/11	11	0/11			3.900	700.000	
ENDOSULFAN-I	UG/KG	0/11	11	0/11			2.000	350.000	
ENDRIN	UG/KG	0/11	11	0/11			3.900	700.000	
ENDRIN ALDEHYDE	UG/KG	0/10	10	0/10			3.900	4.100	
ENDRIN KETONE	UG/KG	0/11	11	0/11			3.900	700.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/11	11	0/11			2.000	350.000	
GAMMA-CHLORDANE	UG/KG	0/11	11	0/11			2.000	3500.000	
HEPTACHLOR	UG/KG	0/11	11	0/11			2.000	350.000	
HEPTACHLOR EPOXIDE	UG/KG	0/11	11	0/11			2.000	350.000	
METHOXYCHLOR	UG/KG	0/11	11	0/11			20.000	3500.000	
TOXAPHENE	UG/KG	0/11	11	0/11			200.000	7000.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.900	4.100	
4,4'-DDE	UG/KG	0/3	3	0/3			3.900	4.100	
4,4'-DDT	UG/KG	0/3	3	0/3			3.900	4.100	
ALDRIN	UG/KG	0/3	3	0/3			2.000	2.100	
ALPHA-BHC	UG/KG	0/3	3	0/3			2.000	2.100	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			2.000	2.100	
AROCLOR-1016	UG/KG	0/3	3	0/3			39.000	41.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			80.000	84.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			39.000	41.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			39.000	41.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			39.000	41.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			39.000	41.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			39.000	41.000	
BETA-BHC	UG/KG	0/3	3	0/3			2.000	2.100	
DELTA-BHC	UG/KG	0/3	3	0/3			2.000	2.100	
DIELDRIN	UG/KG	0/3	3	0/3			3.900	4.100	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.900	4.100	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.900	4.100	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			2.000	2.100	
ENDRIN	UG/KG	0/3	3	0/3			3.900	4.100	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.900	4.100	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.900	4.100	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			2.000	2.100	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			2.000	2.100	
HEPTACHLOR	UG/KG	0/3	3	0/3			2.000	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			2.000	2.100	
METHOXYCHLOR	UG/KG	0/3	3	0/3			20.000	21.000	
TOXAPHENE	UG/KG	0/3	3	0/3			200.000	210.000	

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 3 - 5 FEET									
TOTAL ORGANIC CARBON	MG/KG	2/2	2	2/2	15256.000-15256.000	15256.00			

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AREA: Plant 2/3 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 5 - 10 FEET									
TOTAL ORGANIC CARBON	MG/KG	2/2	2	2/2	15792.000-15792.000	15792.00			

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D.2.3 PLANT 4/5/7 AREA

The Plant 4/5/7 area (see Figure D.2-6) is located in the south-central quadrant of the former production area. It is bordered to the north by the maintenance building area and the tank farm area, to the south by the administration area, to the east by the Plant 6 area, and to the west by the Plant 2/3 and Plant 8 areas. The Plant 4 area consists of three main buildings: the green salt plant (4A), the Plant 4 warehouse (4B), and the Plant 4 maintenance building (4C), as shown in Figure D.2-6. Section 1.3 describes the areas and the processes associated with each. Uranium trioxide from Plant 2/3 was transported to the green salt plant, where it was reduced with hydrogen to form uranium dioxide and then converted to uranium tetrafluoride (UF_4) by reacting with anhydrous hydrogen fluoride. The UF_4 was then transported to the Plant 5 metals production plant, where it was blended with magnesium metal granules and placed in a closed, refractory-lined, steel pot.

The Plant 5 area contains the following facilities or operation areas:

- Metals production plant (5A)
- West side separation and pickling (5B)
- Electrical substation (5C)
- Slag milling and derby breakout (5D)
- Filter building (5E)
- Covered storage (5F)
- Ingot storage shelter (5G)

Plant 7 consisted of the uranium hexafluoride reduction facility (7A), the Plant 7 overhead crane (7B), and the Plant 7 pad (74F).

Removal Action No. 19, now in progress, involves the decontamination and dismantling of Plant 7. The major activities anticipated include (1) relocation of stored, drummed material and debris; (2) removal of interior asbestos insulation; (3) provision for surface decontamination of interior components; (4) termination of utility services; (5) removal of transite surface panels; and (6) dismantling of the structural steel. This removal action will serve as a pilot program for future decontamination and dismantling of the FEMP.

The facilities located in the Plant 4/5/7 area were associated with the production, fabrication, and machining of uranium. From an environmental standpoint, the common denominator among these facilities is the predominance of insoluble, solid forms of uranium. Insignificant amounts of other

chemicals were handled in these areas. Table D-3 summarizes the parameters known to be present or used in the Plant 4/5/7 area.

Soil sampling in the Plant 4/5/7 area was performed in phases, beginning in 1987 with the site-wide RI/FS program. The major sampling programs for these areas were performed in 1989 and 1990, when 15 borings were drilled and sampled. Borings were drilled through the floors of both Plant 4 and Plant 5 and soil samples were collected immediately below the plant floor level. As part of the 1993 investigation, additional sampling was conducted at one surface soil location (PA-SS-17) and two soil boring locations.

Surface Soil

Surface soil sampling was conducted throughout the Plant 4/5/7 area; locations are shown in Figure D.2-6. Table D.2-3 presents the distribution of constituents with respect to the 95th percentile background values (background) for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

A number of radionuclides in the Plant 4/5/7 area exceeded background within the top 6 inches of soil. Most notable were the uranium isotopes uranium-238, uranium-234, and uranium-235/236, thorium-230, strontium-90, and total uranium. The maximum concentration of total uranium in this area is 652 mg/kg, which was detected in the 0- to 0.5-foot interval at sample location 1153. Sample location 1153 is located near a sump in the Plant 5 metal production plant. The majority of the radionuclide levels detected decreased with depth, with the exception of the uranium isotopes and total uranium, which remained at consistently high levels throughout the surface soil.

The only inorganic constituents that were consistently elevated throughout the surface soil at greater than twice background were calcium, magnesium, and potassium. In addition, copper exceeded background within the 1.0- to 1.5-foot interval. These detections were primarily from an area east of the metals production plant. The majority of inorganic constituents slightly exceeded background within the 1.0- to 1.5-foot depth.

The only volatile organic compounds detected in surface soil were acetone, methylene chloride, and toluene, all of which were detected at the 1.0- to 1.5-foot depth only. Acetone and methylene chloride are both common laboratory contaminants.

Seventeen semivolatile compounds, mainly polynuclear aromatic hydrocarbons (PAHs), were detected in the surface soil within the Plant 4/5/7 area. The majority of these were detected in the 1.0- to 1.5-foot depth interval.

No PCBs or pesticides were detected in surface soil within the Plant 4/5/7 area.

Subsurface Soil

Subsurface sampling locations typically coincide with the general locations of surface soil samples within the Plant 4/5/7 area, as shown in Figure D.2-6. Table D.2-3 presents the distribution of constituents with respect to the 95th percentile background levels (background) for each sample depth interval.

The only radionuclide that was consistently elevated above background over the various depth intervals sampled at the Plant 4/5/7 area was total uranium, which ranged in concentration from 3.0 to 83.7 mg/kg in the subsurface soil. In addition, the uranium isotopes uranium-238, uranium-234, and uranium-235/236 all exhibited elevated activities, primarily within the 3.0- to 5.0-foot depth interval. Other radionuclides that slightly exceeded background values in at least one depth interval were thorium-232, total thorium, and radium-228, with detected levels for each decreasing with depth.

The only inorganic compound in the Plant 4/5/7 area to exceed subsurface soil background concentrations by five times was beryllium at the 5.0- to 10.0-foot depth interval. Cadmium was detected above twice background in the same interval. Aluminum, arsenic, barium, cobalt, copper, ion, and manganese were elevated above background levels within the 1.5- to 3.0-foot and 1.5- to 10.0-foot depth intervals.

The only volatile organic compound detected in subsurface soil samples within the Plant 4/5/7 area was 2-butanone, a common laboratory contaminant. The only semivolatile compound detected in the subsurface soil samples was bis(2-ethylhexyl)phthalate, also a common laboratory contaminant attributable to the use of plastic in analytical equipment.

No PCBs or pesticides were detected in subsurface soil within the Plant 4/5/7 area.

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Conclusion

Soil contamination at the Plant 4/5/7 area is primarily limited to surface soil; however, uranium and its isotopes are present in the subsurface soil at levels elevated above background. The fact that uranium was detected at highly elevated levels in sample depth intervals as great as 15 feet may indicate groundwater contamination in this area as well. The majority of the radionuclide contamination was present within the top 1.5 feet of soil. The majority of elevated concentrations of inorganic contaminants were likewise present in the surficial soil. Organic contamination in the Plant 4/5/7 area is minimal. Various semivolatile organic constituents, mainly PAHs common to industrial settings, were mostly isolated within the upper 1.5 feet of soil south of the Plant 4 building. Pesticide and PCB contamination was not detected or believed to be of concern in this area.

The main source areas located within the Plant 4/5/7 area are the sumps inside the green salt plant (4A) and in the metals production plant (5A). The highest detection of total uranium in the surface soil was located beneath the floor near a sump in the metals production plan. Uranium, in the forms of uranium tetrafluoride and uranium oxides, was used extensively in those processes conducted within the Plant 4/5/7 area.

TABLE D.2-3
PLANT 4/5/7 AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	5	■	■	■	■	○	■	●	●	○	●	-	-	X	▒	-	-	○
0.5 - 1	2		-						-									
1 - 1.5	3	■	■	■	○	○	■	○	○	○	○	-	-	-	●	-		
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	1		■		○	○		○	○	-	○							
3 - 5	1	■		■	-	○	■	●	●	●	○	-	-	-	-	-	-	○
5 - 10	5	■	■	●	●	○	●	●	▒	-	○							
10 - 15	11		■															
15 - 20	0																	

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1360	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	69.6
0 - 0.5	3	●	-	○	●	-	-	■	●	○	●	●	●	●	■	○	-	-	-	▒	-	○	-	-	-	●	●
0.5 - 1	0																										
1 - 1.5	4	●	-	●	●	●	●	■	●	●	▒	-	●	○	▒	○	-	X	●	●	-	○	X	●	-	●	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	1	●	-	●	●	-	-	○	○	○	○	-	●	○	○	●	-	-	-	○	-	○	-	-	-	○	○
3 - 5	0																										
5 - 10	3	○	-	○	○	■	▒	○	○	●	●	-	○	○	○	○	-	-	-	○	-	○	-	-	-	○	○
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-3
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)									SEMIVOLATILES (ug/kg)																		
	Number of Samples	2-Butanone	Acetone	Methylene chloride	Toluene					Number of Samples	2,6-Dinitrotoluene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-butyl phthalate	Diethyl phthalate	Fluoranthene	Ideno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	
Surface Soil:																												
0 - 0.5	3	-	-	-	-					3	-	-	X	X	X	X	X	X	X	-	-	X	X	-	X	-	X	
0.5 - 1	0									0																		
1 - 1.5	3	-	X	X	X					3	X	X	X	X	X	-	X	X	X	X	X	X	X	-	X	X	X	X	
Subsurface Soil:																												
1.5 - 3	1	-	-	-	-					1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3 - 5	0									0																		
5 - 10	3	X	-	-	-					3	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
10 - 15	0																											
15 - 20	0																											

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

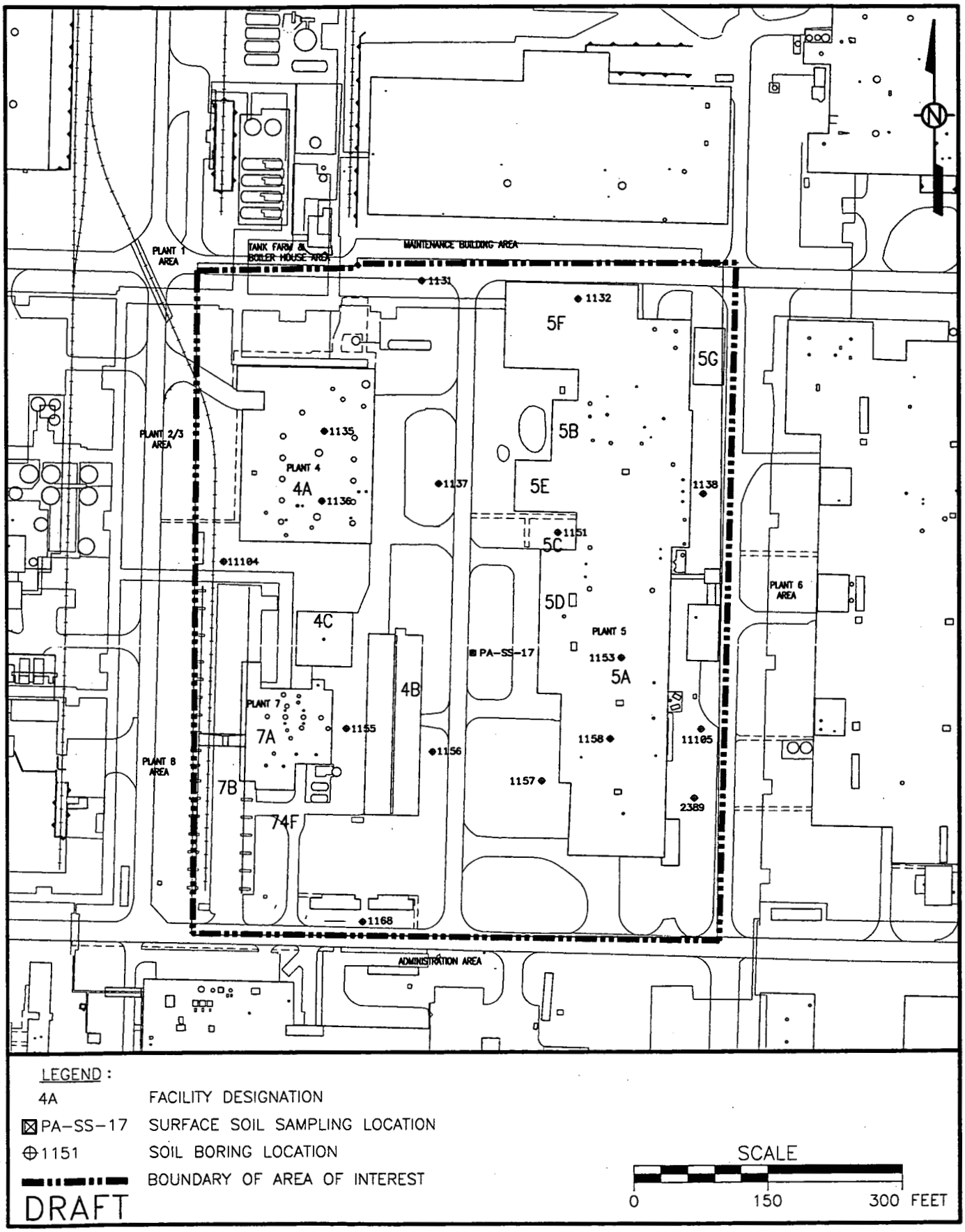

FIGURE D.2-6. PLANT 4/5/7 AREA

Plant 4/5/7 Area

Summary Soil Statistics

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	3/3	3	3/3	40.300-56.600	49.90	11.000	12.000	1.24
URANIUM, TOTAL	MG/KG	13/13	0	13/13	10.100-652.000	121.07	11.000	12.000	3.73
URANIUM-234	PCI/G	3/3	3	3/3	38.000-54.900	45.47	11.000	12.000	1.24
THORIUM-230	PCI/G	5/6	6	3/6	0.500-20.900	5.72	0.600	0.600	1.97
RADIUM-226	PCI/G	5/5	5	0/5	0.684-1.300	0.90	11.000	12.000	1.42
URANIUM-235/236	PCI/G	3/3	3	3/3	1.510-5.900	3.97	11.000	12.000	0.156
THORIUM-232	PCI/G	6/6	6	2/6	0.600-2.670	1.18	11.000	12.000	1.36
THORIUM, TOTAL	MG/KG	7/11	0	3/11	5.472-24.100	12.45	23.000	23.000	12.4
RADIUM-228	PCI/G	2/5	5	0/5	0.772-0.975	0.87	0.500	0.500	1.25
THORIUM-228	PCI/G	5/5	5	1/5	0.500-2.410	1.10	11.000	12.000	1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-238	PCI/G	1/3	3	1/3	1.050-1.050	1.05	0.600	0.600	NA
STRONTIUM-90	PCI/G	1/2	2	1/2	1.910-1.910	1.91	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.200	NA
CESIUM-137	PCI/G	1/2	2	0/2	0.227-0.227	0.23	0.200	0.200	0.711

AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM, TOTAL	MG/KG	0/2	0	0/2			11.000	11.000	3.73
THORIUM, TOTAL	MG/KG	0/2	0	0/2			23.000	23.000	12.4

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	4/4	4	2/4	0.300-140.000	35.83	11.000	12.000	1.24
URANIUM, TOTAL	MG/KG	4/5	0	3/5	3.600-407.000	107.10	11.000	11.000	3.73
URANIUM-234	PCI/G	4/4	4	2/4	0.400-128.000	32.80	11.000	12.000	1.24
THORIUM-230	PCI/G	3/4	4	0/4	0.300-0.900	0.60	0.600	0.600	1.97
RADIUM-226	PCI/G	3/3	3	0/3	0.500-1.400	0.90	11.000	12.000	1.42
URANIUM-235/236	PCI/G	2/4	4	2/4	0.200-8.690	4.45	0.100	0.100	0.156
THORIUM-232	PCI/G	3/4	4	0/4	0.300-0.600	0.40	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	3/5	0	0/5	2.736-5.472	3.65	4.380	23.000	12.4
RADIUM-228	PCI/G	1/3	3	0/3	0.600-0.600	0.60	0.500	2.300	1.25
THORIUM-228	PCI/G	4/4	4	0/4	0.200-0.900	0.65	11.000	12.000	1.43
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	0.644-0.644	0.64	11.000	12.000	0.424
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM, TOTAL	MG/KG	8/13	0	8/13	7.260-83.700	27.12	11.000	11.000	3.69
THORIUM-230	PCI/G	1/1	1	0/1	0.700-0.700	0.70	12.000	12.000	1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.100-1.100	1.10	12.000	12.000	1.47
THORIUM-232	PCI/G	1/1	1	0/1	0.600-0.600	0.60	12.000	12.000	1.26
THORIUM, TOTAL	MG/KG	1/11	0	0/11	5.472-5.472	5.47	23.000	23.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.700-0.700	0.70	12.000	12.000	1.38

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	82.500-82.500	82.50	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	2/2	0	2/2	14.000-191.000	102.50	0.600	0.600	3.69
URANIUM-234	PCI/G	1/1	1	1/1	78.000-78.000	78.00	0.600	0.600	1.04
THORIUM-230	PCI/G	0/1	1	0/1			0.600	0.600	1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.470-1.470	1.47	0.600	0.600	1.47
URANIUM-235/236	PCI/G	1/1	1	1/1	8.100-8.100	8.10	0.600	0.600	0.150
THORIUM-232	PCI/G	1/1	1	1/1	1.360-1.360	1.36	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	1/2	0	1/2	12.300-12.300	12.30	23.000	23.000	11.1
RADIUM-228	PCI/G	1/1	1	1/1	2.140-2.140	2.14	0.600	0.600	1.31
THORIUM-228	PCI/G	1/1	1	0/1	1.090-1.090	1.09	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	1/1	1	1/1	0.295-0.295	0.30	0.600	0.600	NA

000193

05/24/94

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	2/2	2	2/2	1.200-1.500	1.35	12.000	12.000	1.12
URANIUM, TOTAL	MG/KG	9/18	0	8/18	3.000-64.000	19.20	11.000	11.000	3.69
URANIUM-234	PCI/G	2/2	2	2/2	1.100-1.500	1.30	12.000	12.000	1.04
THORIUM-230	PCI/G	3/3	3	1/3	0.700-2.000	1.33	12.000	12.000	1.91
RADIUM-226	PCI/G	3/3	3	0/3	0.800-1.100	0.97	12.000	12.000	1.47
URANIUM-235/236	PCI/G	1/2	2	1/2	0.300-0.300	0.30	0.100	0.100	0.150
THORIUM-232	PCI/G	3/3	3	0/3	0.500-1.100	0.80	12.000	12.000	1.26
THORIUM, TOTAL	MG/KG	4/15	0	1/15	4.560-23.000	11.22	23.000	23.000	11.1
RADIUM-228	PCI/G	0/3	3	0/3			0.500	0.500	1.31
THORIUM-228	PCI/G	3/3	3	0/3	0.600-1.200	0.90	12.000	12.000	1.38

000194

05/24/94

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	2/11	0	2/11	3.730-29.000	16.37	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/10	0	0/10			23.000	23.000	11.1

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	2/4	0	2/4	67.000-68.000	67.50	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/4	0	0/4			23.000	23.000	11.1

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05/24/94

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM, TOTAL	MG/KG	1/2	2	0/2	2.570-2.570	2.57	2.300	2.300	3.69
THORIUM-230	PCI/G	2/2	2	0/2	0.742-0.988	0.87	2.300	2.300	1.91
RADIUM-226	PCI/G	1/2	2	0/2	0.571-0.571	0.57	0.300	0.300	1.47
THORIUM-232	PCI/G	0/2	2	0/2			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	2/2	2	0/2	2.200-3.590	2.90	2.300	2.300	11.1
RADIUM-228	PCI/G	1/2	2	0/2	0.753-0.753	0.75	0.500	0.500	1.31
THORIUM-228	PCI/G	1/2	2	0/2	0.645-0.645	0.65	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	3/3	3	1/3	6480.000-16700.000	10140.00	11.000	12.000	11900
ANTIMONY	MG/KG	0/2	2	0/2			2.300	2.600	NA
ARSENIC	MG/KG	2/2	2	0/2	5.700-6.400	6.05	11.000	12.000	8.20
BARIUM	MG/KG	3/3	3	1/3	69.600-117.000	87.50	11.000	12.000	95.7
BERYLLIUM	MG/KG	0/2	2	0/2			1.200	2.400	0.6
CADMIUM	MG/KG	0/3	3	0/3			1.100	1.400	0.870
CALCIUM	MG/KG	3/3	3	3/3	6090.000-84100.000	55630.00	11.000	12.000	4340
CHROMIUM	MG/KG	3/3	3	1/3	10.200-20.000	13.97	11.000	12.000	15.5
COBALT	MG/KG	2/3	3	0/3	9.300-11.100	10.20	8.800	8.800	14.2
COPPER	MG/KG	1/3	3	1/3	23.000-23.000	23.00	10.700	18.600	14.1
CYANIDE	MG/KG	1/3	3	1/3	0.350-0.350	0.35	0.280	0.300	0.270
IRON	MG/KG	3/3	3	1/3	15500.000-27500.000	20200.00	11.000	12.000	21700
LEAD	MG/KG	2/2	2	1/2	19.800-29.400	24.60	11.000	12.000	26.4
MAGNESIUM	MG/KG	3/3	3	2/3	2200.000-20500.000	14300.00	11.000	12.000	2780
MANGANESE	MG/KG	3/3	3	0/3	481.000-878.000	723.33	11.000	12.000	1350
MERCURY	MG/KG	0/3	3	0/3			0.060	0.130	0.3
MOLYBDENUM	MG/KG	0/2	2	0/2			3.600	3.700	NA
NICKEL	MG/KG	0/3	3	0/3			10.100	25.000	20.9
POTASSIUM	MG/KG	3/3	3	1/3	411.000-2730.000	1366.33	11.000	12.000	1230
SELENIUM	MG/KG	0/2	2	0/2			0.210	0.220	0.72
SILICON	MG/KG	2/2	2	0/2	179.000-191.000	185.00	11.000	12.000	1800
SILVER	MG/KG	0/3	3	0/3			0.220	0.480	NA

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	0/3	3	0/3			86.300	97.900	51.1
THALLIUM	MG/KG	0/3	3	0/3			0.210	0.240	0.58
VANADIUM	MG/KG	3/3	3	1/3	25.300-38.400	30.83	11.000	12.000	30.4
ZINC	MG/KG	3/3	3	1/3	48.400-63.500	56.97	11.000	12.000	59.6

000199

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	4/4	4	2/4	5500.000-17300.000	12275.00	11.000	12.000	11900
ANTIMONY	MG/KG	0/2	2	0/2			1.000	2.600	NA
ARSENIC	MG/KG	3/3	3	2/3	1.500-9.600	6.47	11.000	12.000	8.20
BARIUM	MG/KG	4/4	4	1/4	72.000-141.000	97.60	11.000	12.000	95.7
BERYLLIUM	MG/KG	1/3	3	1/3	0.780-0.780	0.78	0.950	2.600	0.6
CADMIUM	MG/KG	1/4	4	1/4	1.600-1.600	1.60	1.000	1.200	0.870
CALCIUM	MG/KG	4/4	4	3/4	3010.000-80000.000	43302.50	11.000	12.000	4340
CHROMIUM	MG/KG	4/4	4	2/4	7.400-22.600	15.28	11.000	12.000	15.5
COBALT	MG/KG	4/4	4	1/4	6.000-17.600	9.63	11.000	12.000	14.2
COPPER	MG/KG	3/4	4	3/4	17.900-34.200	26.43	4.800	4.800	14.1
CYANIDE	MG/KG	0/4	4	0/4			0.120	0.300	0.270
IRON	MG/KG	4/4	4	2/4	11700.000-36600.000	24250.00	11.000	12.000	21700
LEAD	MG/KG	3/3	3	0/3	10.500-15.000	13.27	11.000	12.000	26.4
MAGNESIUM	MG/KG	4/4	4	3/4	1610.000-15400.000	9580.00	11.000	12.000	2780
MANGANESE	MG/KG	4/4	4	0/4	398.000-1070.000	685.75	11.000	12.000	1350
MERCURY	MG/KG	0/4	4	0/4			0.060	0.150	0.3
MOLYBDENUM	MG/KG	1/3	3	1/3	6.400-6.400	6.40	3.600	4.000	NA
NICKEL	MG/KG	1/4	4	1/4	25.800-25.800	25.80	5.500	44.300	20.9
POTASSIUM	MG/KG	4/4	4	3/4	295.000-1900.000	1301.25	11.000	12.000	1230
SELENIUM	MG/KG	0/3	3	0/3			0.210	2.400	0.72
SILICON	MG/KG	2/3	3	0/3	487.000-627.000	557.00	117.000	117.000	1800
SILVER	MG/KG	1/4	4	1/4	7.800-7.800	7.80	0.230	0.480	NA

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000200

AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	1/4	4	1/4	103.000-103.000	103.00	64.800	109.000	51.1
THALLIUM	MG/KG	0/4	4	0/4			0.210	0.420	0.58
VANADIUM	MG/KG	4/4	4	2/4	21.400-42.600	30.55	11.000	12.000	30.4
ZINC	MG/KG	4/4	4	1/4	26.500-77.000	54.15	11.000	12.000	59.6

000201

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	1/1	1	1/1	17500.000-17500.000	17500.00	12.000	12.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			2.700	2.700	NA
ARSENIC	MG/KG	1/1	1	1/1	11.300-11.300	11.30	12.000	12.000	9.57
BARIUM	MG/KG	1/1	1	1/1	157.000-157.000	157.00	12.000	12.000	119
BERYLLIUM	MG/KG	0/1	1	0/1			0.980	0.980	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.200	1.200	0.910
CALCIUM	MG/KG	1/1	1	0/1	6530.000-6530.000	6530.00	12.000	12.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	18.900-18.900	18.90	12.000	12.000	20.7
COBALT	MG/KG	1/1	1	0/1	15.300-15.300	15.30	12.000	12.000	15.7
COPPER	MG/KG	1/1	1	0/1	19.200-19.200	19.20	12.000	12.000	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.300	0.300	.17
IRON	MG/KG	1/1	1	1/1	33100.000-33100.000	33100.00	12.000	12.000	30700
LEAD	MG/KG	1/1	1	0/1	11.600-11.600	11.60	12.000	12.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	3680.000-3680.000	3680.00	12.000	12.000	42600
MANGANESE	MG/KG	1/1	1	1/1	1340.000-1340.000	1340.00	12.000	12.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.160	0.160	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.100	4.100	2.7
NICKEL	MG/KG	0/1	1	0/1			19.900	19.900	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1050.000-1050.000	1050.00	12.000	12.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.240	0.240	NA
SILICON	MG/KG	1/1	1	0/1	435.000-435.000	435.00	12.000	12.000	1590
SILVER	MG/KG	0/1	1	0/1			0.490	0.490	NA

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000202

DRAFT

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	0/1	1	0/1			34.100	34.100	285
THALLIUM	MG/KG	0/1	1	0/1			0.240	0.240	0.49
VANADIUM	MG/KG	1/1	1	0/1	36.400-36.400	36.40	12.000	12.000	37.8
ZINC	MG/KG	1/1	1	0/1	63.400-63.400	63.40	12.000	12.000	82.0

000203

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5699

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	3/3	3	0/3	8550.000-12600.000	9900.00	12.000	12.000	16100
ANTIMONY	MG/KG	0/3	3	0/3			2.600	2.700	NA
ARSENIC	MG/KG	3/3	3	0/3	3.300-5.500	4.27	12.000	12.000	9.57
BARIUM	MG/KG	3/3	3	0/3	61.900-115.000	80.00	12.000	12.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	3.900-3.900	3.90	1.200	1.200	0.620
CADMIUM	MG/KG	1/3	3	1/3	2.000-2.000	2.00	1.200	1.200	0.910
CALCIUM	MG/KG	3/3	3	0/3	5710.000-134000.000	84570.00	12.000	12.000	150000
CHROMIUM	MG/KG	3/3	3	0/3	14.500-18.000	15.80	12.000	12.000	20.7
COBALT	MG/KG	2/3	3	1/3	8.200-16.500	12.35	10.800	10.800	15.7
COPPER	MG/KG	2/3	3	2/3	21.000-28.000	24.50	20.200	20.200	20.0
CYANIDE	MG/KG	0/3	3	0/3			0.290	0.310	.17
IRON	MG/KG	3/3	3	0/3	22000.000-30200.000	25000.00	12.000	12.000	30700
LEAD	MG/KG	3/3	3	0/3	8.300-14.000	11.43	12.000	12.000	15.6
MAGNESIUM	MG/KG	3/3	3	0/3	4650.000-26900.000	19250.00	12.000	12.000	42600
MANGANESE	MG/KG	3/3	3	0/3	555.000-1020.000	715.33	12.000	12.000	1300
MERCURY	MG/KG	0/3	3	0/3			0.100	0.130	0.29
MOLYBDENUM	MG/KG	0/3	3	0/3			4.000	4.200	2.7
NICKEL	MG/KG	0/3	3	0/3			23.000	39.000	34.3
POTASSIUM	MG/KG	3/3	3	0/3	910.000-1530.000	1240.00	12.000	12.000	1980
SELENIUM	MG/KG	0/3	3	0/3			0.230	0.250	NA
SILICON	MG/KG	2/3	3	0/3	243.000-580.000	411.50	83.600	83.600	1590
SILVER	MG/KG	0/3	3	0/3			0.250	0.470	NA

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000204

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	0/3	3	0/3			43.800	149.000	285
THALLIUM	MG/KG	0/3	3	0/3			0.230	0.250	0.49
VANADIUM	MG/KG	1/3	3	0/3	25.300-25.300	25.30	25.500	28.500	37.8
ZINC	MG/KG	3/3	3	0/3	47.100-75.900	63.83	12.000	12.000	82.0

000205

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value.
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			11.000	12.000	
ACETONE	UG/KG	0/3	3	0/3			11.000	14.000	
BENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
METHYLENE CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			11.000	12.000	

000207

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			11.000	12.000	
ACETONE	UG/KG	1/3	3	1/3	220.000-220.000	220.00	12.000	16.000	
BENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							95% Background Concentration Value
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	
VOLATILES DEPTH: 1 - 1.5 FEET									
METHYLENE CHLORIDE	UG/KG	1/3	3	1/3	19.000-19.000	19.00	11.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
TOLUENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOFORM	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
STYRENE	UG/KG	0/1	1	0/1			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
TOLUENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			12.000	12.000	

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			12.000	12.000	
2-BUTANONE	UG/KG	1/1	1	1/1	11.000-11.000	11.00	12.000	12.000	
ACETONE	UG/KG	0/3	3	0/3			12.000	54.000	
BENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			12.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
ETHYLBENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			12.000	12.000	

AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			890.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			360.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			890.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			360.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			360.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			360.000	400.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			360.000	400.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	400.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			890.000	1000.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			360.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			360.000	400.000	
3-NITROANILINE	NONE	0/3	3	0/3			890.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			890.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			360.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	400.000	

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			360.000	400.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	400.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			890.000	1000.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			890.000	1000.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			360.000	400.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			360.000	400.000	
ANTHRACENE	UG/KG	0/3	3	0/3			360.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	1/3	3	1/3	74.000-74.000	74.00	370.000	400.000	
BENZO(A)PYRENE	UG/KG	1/3	3	1/3	92.000-92.000	92.00	370.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	1/3	3	1/3	140.000-140.000	140.00	370.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/3	3	1/3	54.000-54.000	54.00	370.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	1/3	3	1/3	110.000-110.000	110.00	370.000	400.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			890.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			360.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			360.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			360.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			360.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/3	3	2/3	110.000-120.000	115.00	360.000	360.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	400.000	
CARBAZOLE	UG/KG	0/3	3	0/3			360.000	400.000	
CHRYSENE	UG/KG	1/3	3	1/3	130.000-130.000	130.00	370.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			370.000	2400.000	

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			360.000	400.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			360.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	400.000	
FLUORANTHENE	UG/KG	2/3	3	2/3	56.000-140.000	98.00	400.000	400.000	
FLUORENE	UG/KG	0/3	3	0/3			360.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			360.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			360.000	400.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			360.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/3	3	1/3	86.000-86.000	86.00	370.000	400.000	
ISOPHORONE	UG/KG	0/3	3	0/3			360.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			360.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			360.000	400.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			360.000	400.000	
NITROBENZENE	UG/KG	0/3	3	0/3			360.000	400.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			360.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			890.000	1000.000	
PHENANTHRENE	UG/KG	1/3	3	1/3	59.000-59.000	59.00	370.000	400.000	
PHENOL	UG/KG	0/3	3	0/3			360.000	400.000	
PYRENE	UG/KG	2/3	3	2/3	49.000-110.000	79.50	400.000	400.000	

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			10.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			10.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			10.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			10.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			25.000	980.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			10.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			10.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			10.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			25.000	980.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			10.000	390.000	
2,6-DINITROTOLUENE	UG/KG	1/3	3	1/3	11.000-11.000	11.00	360.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			10.000	390.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			10.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			10.000	390.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			10.000	390.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			25.000	980.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			10.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			10.000	390.000	
3-NITROANILINE	NONE	0/3	3	0/3			25.000	980.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			25.000	980.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			10.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			10.000	390.000	

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			10.000	390.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			10.000	390.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			25.000	980.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			25.000	980.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			10.000	390.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			10.000	390.000	
ANTHRACENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
BENZO(A)PYRENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	1/3	3	1/3	34.000-34.000	34.00	10.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			10.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	1/3	3	1/3	19.000-19.000	19.00	10.000	390.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			25.000	980.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			10.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			10.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			10.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	1/3	3	1/3	130.000-130.000	130.00	10.000	360.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/3	3	0/3			10.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			10.000	390.000	
CARBAZOLE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
CHRYSENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	390.000	2000.000	
DI-N-BUTYL PHTHALATE	UG/KG								

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			10.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			10.000	390.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			10.000	390.000	
DIETHYL PHTHALATE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			10.000	390.000	
FLUORANTHENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
FLUORENE	UG/KG	0/3	3	0/3			10.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			10.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			10.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			10.000	390.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			10.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			10.000	390.000	
ISOPHORONE	UG/KG	0/3	3	0/3			10.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			10.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			10.000	390.000	
NAPHTHALENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
NITROBENZENE	UG/KG	0/3	3	0/3			10.000	390.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			10.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			25.000	980.000	
PHENANTHRENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
PHENOL	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	
PYRENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	360.000	390.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			410.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1000.000	1000.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			410.000	410.000	
3-NITROANILINE	NONE	0/1	1	0/1			1000.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1000.000	1000.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			410.000	410.000	
ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1000.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
CARBAZOLE	UG/KG	0/1	1	0/1			410.000	410.000	
CHRYSENE	UG/KG	0/1	1	0/1			410.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			2100.000	2100.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			410.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
FLUORENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			410.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	
ISOPHORONE	UG/KG	0/1	1	0/1			410.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			410.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			410.000	410.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
NITROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			410.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			410.000	410.000	
PHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			980.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			390.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			390.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			390.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			980.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			390.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			390.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			390.000	410.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			390.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			390.000	410.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			390.000	410.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			980.000	1000.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			390.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			390.000	410.000	
3-NITROANILINE	NONE	0/3	3	0/3			980.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			980.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			390.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			390.000	410.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			390.000	410.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			390.000	410.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			980.000	1000.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			980.000	1000.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			390.000	410.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			390.000	410.000	
ANTHRACENE	UG/KG	0/3	3	0/3			390.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/3	3	0/3			390.000	410.000	
BENZO(A)PYRENE	UG/KG	0/3	3	0/3			390.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/3	3	0/3			390.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			390.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/3	3	0/3			390.000	410.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			980.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			390.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			390.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			390.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	2/3	3	2/3	98.000-110.000	104.00	390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/3	3	0/3			390.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	410.000	
CARBAZOLE	UG/KG	0/3	3	0/3			390.000	410.000	
CHRYSENE	UG/KG	0/3	3	0/3			390.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			410.000	2300.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			390.000	410.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			390.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	410.000	
FLUORANTHENE	UG/KG	0/3	3	0/3			390.000	410.000	
FLUORENE	UG/KG	0/3	3	0/3			390.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			390.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			390.000	410.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			390.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			390.000	410.000	
ISOPHORONE	UG/KG	0/3	3	0/3			390.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			390.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			390.000	410.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			390.000	410.000	
NITROBENZENE	UG/KG	0/3	3	0/3			390.000	410.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			390.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			980.000	1000.000	
PHENANTHRENE	UG/KG	0/3	3	0/3			390.000	410.000	
PHENOL	UG/KG	0/3	3	0/3			390.000	410.000	
PYRENE	UG/KG	0/3	3	0/3			390.000	410.000	

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.500	3.900	
4,4'-DDE	UG/KG	0/3	3	0/3			3.500	3.900	
4,4'-DDT	UG/KG	0/3	3	0/3			3.500	3.900	
ALDRIN	UG/KG	0/3	3	0/3			1.800	2.000	
ALPHA-BHC	UG/KG	0/3	3	0/3			1.800	2.000	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	2.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			71.000	80.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			35.000	39.000	
BETA-BHC	UG/KG	0/3	3	0/3			1.800	2.000	
DELTA-BHC	UG/KG	0/3	3	0/3			1.800	2.000	
DIELDRIN	UG/KG	0/3	3	0/3			3.500	3.900	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.500	3.900	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.500	3.900	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			1.800	2.000	
ENDRIN	UG/KG	0/3	3	0/3			3.500	3.900	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.500	3.900	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.500	3.900	

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000226

AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			1.800	2.000	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	2.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			1.800	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			1.800	2.000	
METHOXYCHLOR	UG/KG	0/3	3	0/3			18.000	20.000	
TOXAPHENE	UG/KG	0/3	3	0/3			180.000	200.000	

000227

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value*
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.500	3.900	
4,4'-DDE	UG/KG	0/3	3	0/3			3.500	3.900	
4,4'-DDT	UG/KG	0/3	3	0/3			3.500	3.900	
ALDRIN	UG/KG	0/3	3	0/3			1.800	2.000	
ALPHA-BHC	UG/KG	0/3	3	0/3			1.800	2.000	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	2.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			71.000	80.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			35.000	39.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			35.000	39.000	
BETA-BHC	UG/KG	0/3	3	0/3			1.800	2.000	
DELTA-BHC	UG/KG	0/3	3	0/3			1.800	2.000	
DIELDRIN	UG/KG	0/3	3	0/3			3.500	3.900	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.500	3.900	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.500	3.900	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			1.800	2.000	
ENDRIN	UG/KG	0/3	3	0/3			3.500	3.900	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.500	3.900	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.500	3.900	

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AREA: Plant 4/5/7 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			1.800	2.000	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	2.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			1.800	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			1.800	2.000	
METHOXYCHLOR	UG/KG	0/3	3	0/3			18.000	20.000	
TOXAPHENE	UG/KG	0/3	3	0/3			180.000	200.000	

000229

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5699

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			4.000	4.000	
4,4'-DDE	UG/KG	0/1	1	0/1			4.000	4.000	
4,4'-DDT	UG/KG	0/1	1	0/1			4.000	4.000	
ALDRIN	UG/KG	0/1	1	0/1			2.100	2.100	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.100	2.100	
AROCLOR-1016	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			82.000	82.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			40.000	40.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
DELTA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
DIELDRIN	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.100	2.100	
ENDRIN	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			4.000	4.000	

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.100	2.100	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.100	2.100	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.100	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.100	2.100	
METHOXYCHLOR	UG/KG	0/1	1	0/1			21.000	21.000	
TOXAPHENE	UG/KG	0/1	1	0/1			210.000	210.000	

000231

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AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.800	4.100	
4,4'-DDE	UG/KG	0/3	3	0/3			3.800	4.100	
4,4'-DDT	UG/KG	0/3	3	0/3			3.800	4.100	
ALDRIN	UG/KG	0/3	3	0/3			2.000	2.100	
ALPHA-BHC	UG/KG	0/3	3	0/3			2.000	2.100	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			2.000	2.100	
AROCLOR-1016	UG/KG	0/3	3	0/3			38.000	41.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			78.000	83.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			38.000	41.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			38.000	41.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			38.000	41.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			38.000	41.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			38.000	41.000	
BETA-BHC	UG/KG	0/3	3	0/3			2.000	2.100	
DELTA-BHC	UG/KG	0/3	3	0/3			2.000	2.100	
DIELDRIN	UG/KG	0/3	3	0/3			3.800	4.100	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.800	4.100	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.800	4.100	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			2.000	2.100	
ENDRIN	UG/KG	0/3	3	0/3			3.800	4.100	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.800	4.100	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.800	4.100	

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000232

AREA: Plant 4/5/7 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			2.000	2.100	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			2.000	2.100	
HEPTACHLOR	UG/KG	0/3	3	0/3			2.000	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			2.000	2.100	
METHOXYCHLOR	UG/KG	0/3	3	0/3			20.000	21.000	
TOXAPHENE	UG/KG	0/3	3	0/3			200.000	210.000	

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D.2.4 PLANT 6 AREA

The Plant 6 area covers an approximate 650- by 800-foot rectangle near the southeast portion of the former production area of the FEMP, as shown in Figure D.2-7. The metals fabrication plant (6A), used primarily for milling and machinery operation, encompasses most of the Plant 6 area. Several small buildings including the receiving building (82) and pads are also present. Two bulk storage tanks (T5 and T6), the storage pad north of Plant 6, and the Plant 6 warehouse (79) have been designated under RCRA as hazardous waste management units (HWMUs). Field work associated with the closure of the bulk tanks and the storage pad was completed in 1992; however, clean closure was not achieved. The tanks will be closed under CERCLA. The Plant 6 warehouse is an active unit used for material storage. An above-ground water storage tank (20D) located in the eastern portion of the area has been sandblasted during repainting, generating airborne particulates. Table D-1 summarizes the parameters known to be present around the Plant 6 area.

Sampling in the area has been performed in phases, beginning in 1987 with the site-wide RI/FS program. Most sampling in this area was performed in 1989 and 1991. A limited sampling and testing program performed in 1993, completed the investigations.

Surface Soil

Surface sampling in the Plant 6 area was concentrated in three locations within the metals fabrication plant (6A). These locations are the chip pickling area, the pickling area, and the water treatment area. Borings were drilled through the plant floor so surface soils in these areas are immediately below the plant floor level. Outside the main building, sampling focused on the area around the potable water tower just south of the Plant 6 warehouse where uncontrolled sand blasting associated with repainting occurred and the salt oil storage tank area. Additional samples were collected from locations surrounding the plant, as indicated in Figure D.2-7.

Selected samples were tested, based on the requirements of the programs under which they were obtained. The test results from all the programs in the area were combined for this discussion. The test results were compared to the 95th percentile background value (background) for each radionuclide and inorganic constituent. Test results were compared with detection limits for organics, PCBs, and pesticides. Table D.2-4 presents the distribution of constituents in the Plant 6 area with respect to the comparison levels by depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Testing for total and isotopic uranium and total thorium was performed on samples to characterize radionuclide contamination of surface soil in the Plant 6 area. The maximum concentration of total uranium in the surface soil is 90,350 mg/kg, a level which is present in the 0- to 0.5-foot interval. This concentration represents the maximum total uranium soil concentration in the FEMP database. This sample was collected from Boring 1139, which is located in the northeast corner of the metals fabrication plant near the water treatment area, as shown in Figure D.2-7. Testing for other radionuclides was limited to a smaller sample set. Analytical results of samples tested for radionuclides indicated that uranium isotopes, total thorium, and strontium-90 were present at levels greater than twice background value in intermittent samples at all surface soil intervals. Plutonium-238 and technetium-99 were detected in the 0- to 0.5-foot interval and throughout the surface sampling zone, respectively. However, no background levels were recorded for either radionuclide. Other radionuclides were present at levels less than background or were not detected.

About half of the inorganics were detected at levels below background in the surface sampling zone. Calcium and magnesium were detected at levels greater than five times background throughout the surface sampling zone primarily in an area adjacent to metals fabrication plant west of the Plant 6 warehouse. Cadmium, lead, and sodium were detected at levels greater than five times background in the 0- to 0.5-foot interval. Sodium was also detected in this range at the 1.0- to 1.5-foot depth. At other intervals, cadmium and sodium were detected at greater than twice background. Lead was detected at twice background in the 0.5- to 1.0-foot interval. Other constituents detected at greater than twice background in at least one interval were arsenic, barium, beryllium, chromium, copper, selenium, and zinc. Aluminum, iron, mercury, nickel, and potassium were detected at levels above background, but less than twice the value in at least one interval. Silver and molybdenum were detected to a depth of 1.0 foot, but no background levels were recorded for these constituents. Most of the above-mentioned detections were in the eastern portion of the area near the water tower.

A number of volatile organics were detected from four samples collected from the surface sampling zone. These include the following:

1,1,1-Trichloroethane	2-Butanone
Acetone	Carbon tetrachloride
Methylene chloride	Trichloroethene
Tetrachloroethene	Toluene
Total xylene	

Methylene chloride, 2-butanone, and total xylene were the primary constituents detected throughout the zone. Acetone, methylene chloride, and 2-butanone are common laboratory contaminants. 1,1,1-Trichloroethane, tetrachloroethane, and trichloroethene are solvents used at the FEMP.

Nineteen semivolatile organics, most of which are PAHs common to industrial sites, were detected in four samples tested in the 0- to 0.5-foot depth interval:

Acenaphthylene	Anthracene
Benzo(a)anthracene	Benzo(a)pyrene
Benzo(b)fluoranthene	Benzo(g,h,i)perylene
Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate
Carbazole	Chrysene
2-Methylnaphthalene	Dibenzofuran
Dibenzo(a,h)anthracene	Fluoranthene
Fluorene	Ideno(1,2,3-cd)pyrene
Naphthalene	Phenanthrene
Pyrene	

No samples were tested for semivolatiles in the 0.5- to 1.0-foot interval. One of four samples tested in the 1.0- to 1.5-foot interval had a low detection of bis(2-ethylhexyl)phthalate. This was the only semivolatile detected in the interval. Bis(2-ethylhexyl)phthalate is a common material used in plasticizers. Detection of organics were typically near sumps in the pickling areas.

No pesticides were detected in the surface sampling zone. Aroclor-1254, a PCB, was detected in the 0- to 0.5- and 1.0- to 1.5-foot depth intervals, at levels of 47 to 92 μg/kg adjacent to the metals fabrication plant across from the Plant 6 warehouse.

Subsurface Soil

Subsurface sampling in the Plant 6 area typically occurred in the general location of pickling and chip pickling areas, as shown in Figure D.2-7. Table D.2-4 presents the distribution of constituents in the Plant 6 area with respect to the background for each subsurface depth interval.

Total uranium and isotopic uranium were detected at significantly elevated levels in the subsurface soil to depths of 20 feet. Maximum total uranium concentrations detected were 54,000 mg/kg in the 1.5- to 3.0-foot interval and 69,300 mg/kg in the 3.0- to 5.0-foot interval. The uranium concentration of 69,300 mg/kg represents the maximum value for total uranium in subsurface soil in the FEMP database. This sample was also collected from Boring 1139 (see Surface Soil). Total

uranium concentrations decrease to levels of approximately 5000 mg/kg below the 5.0- to 10-foot depth interval. Levels of total thorium and strontium-90 were detected above background in the 1.5- to 3.0-foot depth interval. Technetium-99 was also detected in this interval, but a background level was not recorded. Other radionuclide levels were generally below background levels or not detected.

The levels of most inorganics detected in subsurface soil in the Plant 6 area are at about the same location as surface detection, are less than surface soil levels, and are below background. Detected levels of barium, beryllium, copper, lead, magnesium, molybdenum, sodium, thallium and zinc were above background in the 3.0- to 5.0-foot interval. Levels of cadmium and cyanide with detections at least five times background occurred in this interval. Antimony, selenium, and silver were detected in at least one subsurface interval between 3.0 and 10.0 feet, but no background levels were recorded. At depths of 10.0 to 20.0 feet, no samples collected were tested for inorganics.

Subsurface detections of volatile organics, semivolatile organics, and PCBs were limited to the same areas of Plant 6 as the surface organic contamination. Locations of positive detections were primarily just south of the pickling area. The following 17 volatile organics were detected in as many as 20 to 30 percent of the samples tested in the 3.0- to 5.0-foot depth intervals of subsurface soil:

1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane
1,1-Dichloroethane	1,1-Dichloroethene
1,2-Dichloroethane	1,2-Dichloroethene
2-Butanone	4-Methyl-2-pentanone
Acetone	Chloroethane
Carbon disulfide	Ethyl benzene
Trichloroethene	Tetrachloroethene
Toluene	Total xylene
Vinyl chloride	

The level of perched groundwater in the Plant 6 area fluctuates at about 5 feet below the ground surface, which is at the level of highest volatile concentration. Boring logs indicate that pervious gravel is generally present at this level.

Below the 5.0-foot depth interval in the Plant 6 area, only two samples were tested for volatile organics. 1,2,-dichloroethene (total), trichloroethene, and tetrachloroethene were detected in the 5.0- to 10-foot interval.

About half of the semivolatile organics detected in the surface sampling zone in the Plant 6 area were detected in the 3.0- to 5.0-foot interval of the subsurface. Detections occurred in less than 10 percent of the samples tested from this interval. Only bis(2-ethylhexyl)phthalate and fluoranthane were detected in the 5.0- to 10-foot interval, and no samples below 10 feet were analyzed for semivolatiles.

Aroclor-1254 was present in one sample collected from the 3.0- to 5.0-foot depth interval. No pesticides were detected in any subsurface soil sample.

Conclusions

Contamination in the Plant 6 area is present in both surface and subsurface soil. Total uranium concentrations were detected at extremely elevated levels to depths of 20 feet below the metals fabrication plant, particularly at Boring 1139, located near the water treatment area. The highest detected concentration of total uranium in both the surface (90,350 μg/kg) and subsurface (69,300 μg/kg) soil in the former production area is present in this area. Many other radionuclides are present in the soil, but at lower levels than the uranium isotopes. The elevated inorganic and organic levels were detected primarily in the upper 5 feet of soil; the majority of these elevated levels occurred in samples collected south of the pickling area in the Plant 6 building.

The apparent sources of contamination in the Plant 6 area, as detected by the sampling program, are leaks from process equipment and sumps. Surface soil radionuclide and inorganic detections are typically derived from airborne deposition or surface spills of acids in the plant. Subsurface detections of all constituents are associated with leaks or discharges from sumps and underground piping. Organic contamination, primarily volatiles, is likely from leaks in the sumps and process equipment in the pickling area, since the highest VOC detections were in this area at the 3.0- to 5.0-foot depth interval. Semivolatile organics, most of which are PAHs typically associated with industrial settings, were primarily detected in surface soils, outside the Plant 6 building east of the pickling area.

TABLE D.2-4
PLANT 6 AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	4				⊙	●		○	■	○	■	-	-	X	⊙	X	-	-
0.5 - 1	3				⊙	○	■	●	●	-	●	-	-	-	⊙	X	-	-
1 - 1.5	7				●	○	■	○	○	○	○	-	-	-	⊙	X	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.89 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	12					○	■	●	⊙	●	●	-	-	-	■	X	-	-
3 - 5	2				○	○	■	○	○	○	○	-	-	-		-	-	-
5 - 10	18				⊙	○	■	●	⊙	●	●	-	X	X	■	X	-	-
10 - 15	7				●	○	■	○	⊙	○	○	-	-	-	⊙	X	-	-
15 - 20	11				⊙	○	■	○	⊙	○	○	-	-	-	●	X	-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	7	●	-	○	●	●	■	■	⊙	○	●	-	○	■	■	○	●	X	●	●	○	-	X	■	○	○	⊙
0.5 - 1	4	●		⊙	⊙	●	⊙	■	⊙	○	⊙		○	⊙	■	○	-	X	●	○	⊙		X	⊙	○	○	○
1 - 1.5	4	●	-	●	●	⊙	⊙	■	●	○	●	-	●	○	■	○	-	-	●	●	○	○	-	■	○	○	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	3	○	-	●	●	⊙	-	○	○	●	○	-	●	●	○	●	-	-	●	○	-		-	●	-	●	●
3 - 5	17	○	X	○	●	●	■	○	○	○	●	■	○	⊙	●	○	○	●	○	○	-		X	⊙	●	○	●
5 - 10	2	○		○	○	-		○	○	○	●	-	○	●	○	○	-	-	○	○	X		X	●	-	○	○
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

⊙ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-4
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)																				
	Number of Samples	1,1,-Dichloroethane	1,1,-Dichloroethene	1,2,-Dichloroethene (total)	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,2-Dichloroethane	2-Butanone	4-Methyl-2-pentanone	Acetone	Carbon disulfide	Carbon tetrachloride	Chloroethane	Chloroform	Ethyl Benzene	Methylene chloride	Tetrachloroethene	Toluene	Total Xylene	Trichloroethene	Vinyl chloride
Surface Soil:																					
0 - 0.5	4	-	-	-	X	-	-	X	-	X	-	X	-	-	-	X	X	X	X	X	-
0.5 - 1	6				-			-	-	-	-	-			-	-	-	-		-	
1 - 1.5	4	-	-	-	-	-	-	X		-	-	-	-	-	-	X	-	-	X	-	-
Subsurface Soil:																					
1.5 - 3	3	-	-	X	-	-	-	X		-	-	-	-	-	-	-	-	-	X	-	-
3 - 5	20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X
5 - 10	2	-	-	X	-	-	-			-	-	-	-	-	-	-	X	-	-	X	-
10 - 15	0																				
15 - 20	0																				

Depth Interval, Feet	SEMIVOLATILES (ug/kg)																													
	Number of Samples	2-Methylnaphthalene	4-Chloro-3-methylphenol	4-Nitrophenol	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Di-n-butyl phthalate	Di-n-octyl phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	Naphthalene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Surface Soil:																														
0 - 0.5	4	X	-	-	X	X	X	X	X	X	X	-	X	-	X	X	-	-	X	X	X	X	X	X	-	X	-	X
0.5 - 1	6																											
1 - 1.5	4	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subsurface Soil:																														
1.5 - 3	3	-	-	-	-	-	X	X	X	X	X	-	X	-	-	X	-	-	-	-	X	-	X	-	-	X	-	X
3 - 5	18	-	X	X	-	-	-	-	-	-	-	X	X	X	-	-	-	X	-	-	-	-	-	-	X	-	X	X
5 - 10	2	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-	-	X
10 - 15	0																											
15 - 20	0																											

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

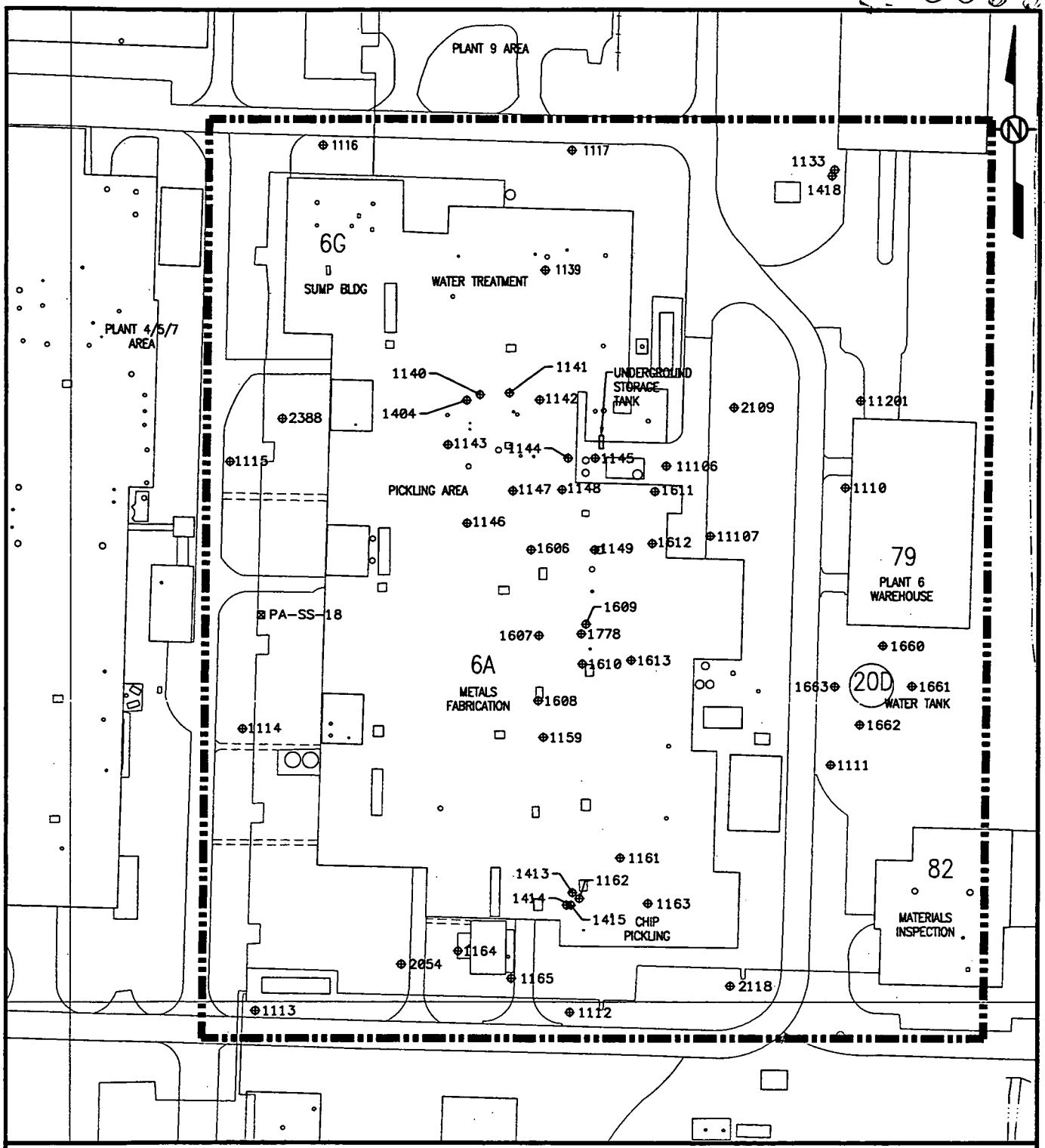
TABLE D.2-4
(Continued)

	PESTICIDES/PCBs (ug/kg)									
Depth Interval, Feet	Number of Samples	Aroclor-1254	Endrin							
Surface Soil:										
0 - 0.5	3	X	X							
0.5 - 1	0									
1 - 1.5	4	X								
Subsurface Soil:										
1.5 - 3	2	-								
3 - 5	6	X								
5 - 10	2	-								
10 - 15	0									
15 - 20	0									

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.



STATE PLANAR COORDINATE SYSTEM 1927

ACAD: W:\DATA\CADD\4P94\94051001.DWG 6/12/94 MLS

LEGEND:

6A	FACILITY DESIGNATION
⊠PA-SS-18	SURFACE SOIL SAMPLING LOCATION
⊕1309	SOIL BORING LOCATION
▬▬▬	BOUNDARY OF AREA OF INTEREST

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SCALE

0 120 240 FEET

FIGURE D.2-7. PLANT 6 AREA

Plant 6 Area

Summary Soil Statistics

AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	5/5	0	5/5	91.900-19067.000	3946.78			1.24
URANIUM, TOTAL	MG/KG	9/10	0	8/10	3.700-90350.000	14671.30	11.000	11.000	3.73
URANIUM-234	PCI/G	5/5	0	5/5	36.200-18093.000	3719.56			1.24
THORIUM-230	PCI/G	5/6	0	2/6	1.300-5.080	2.81	11.400	11.400	1.97
RADIUM-226	PCI/G	3/4	0	1/4	0.400-1.800	0.94	0.250	0.250	1.42
URANIUM-235/236	PCI/G	5/5	0	5/5	2.810-1021.000	209.54			0.156
THORIUM-232	PCI/G	4/6	0	0/6	0.800-1.200	0.99	1.000	11.400	1.36
THORIUM, TOTAL	MG/KG	5/11	0	1/11	7.296-92.100	25.59	8.800	45.000	12.4
RADIUM-228	PCI/G	3/4	0	0/4	0.628-1.000	0.84	0.500	0.500	1.25
THORIUM-228	PCI/G	4/4	0	1/4	0.800-22.100	6.33			1.43
NEPTUNIUM-237	PCI/G	0/1	0	0/1			2.990	2.990	NA
PLUTONIUM-239/240	PCI/G	0/3	0	0/3			0.600	2.990	NA
PLUTONIUM-238	PCI/G	1/3	0	1/3	0.852-0.852	0.85	0.600	5.710	NA
STRONTIUM-90	PCI/G	3/3	0	3/3	1.060-1.480	1.24			0.424
TECHNETIUM-99	PCI/G	1/3	0	1/3	210.000-210.000	210.00	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	0	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	0	0/1			0.200	0.200	0.711
GROSS ALPHA	PCI/G	18/18	0	18/18	6.920-968.400	119.66			
GROSS BETA	PCI/G	18/18	0	18/18	20.550-1343.000	235.45			

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	2/2	0	2/2	78.000-194.000	136.00			1.24
URANIUM, TOTAL	MG/KG	7/10	0	6/10	3.250-1416.000	558.89	11.000	11.000	3.73
URANIUM-234	PCI/G	2/2	0	2/2	71.900-184.000	127.95			1.24
THORIUM-230	PCI/G	3/3	0	1/3	0.956-7.220	3.11			1.97
RADIUM-226	PCI/G	1/2	0	0/2	0.914-0.914	0.91	0.300	0.300	1.42
URANIUM-235/236	PCI/G	2/2	0	2/2	5.010-14.200	9.61			0.156
THORIUM-232	PCI/G	1/3	0	1/3	1.800-1.800	1.80	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	5/10	0	3/10	2.440-28.000	15.31	23.000	23.000	12.4
RADIUM-228	PCI/G	0/2	0	0/2			0.500	0.635	1.25
THORIUM-228	PCI/G	2/3	0	2/3	1.480-2.410	1.95	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/3	0	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	0	0/3			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	0	0/3			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/3	0	2/3	0.510-1.910	1.21	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	2/3	0	2/3	2.180-4.470	3.33	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	0	0/2			1.000	1.330	NA
CESIUM-137	PCI/G	0/2	0	0/2			0.200	0.200	0.711

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	6/6	0	5/6	0.300-781.000	162.70			1.24
URANIUM, TOTAL	MG/KG	21/30	0	20/30	2.300-8059.000	762.64	11.000	1000.000	3.73
URANIUM-234	PCI/G	6/6	0	4/6	0.300-738.000	153.23			1.24
THORIUM-230	PCI/G	8/8	0	2/8	0.800-3.800	1.82			1.97
RADIUM-226	PCI/G	5/5	0	0/5	0.500-1.200	0.77			1.42
URANIUM-235/236	PCI/G	4/6	0	4/6	0.400-63.400	17.75	0.100	0.200	0.156
THORIUM-232	PCI/G	6/8	0	0/8	0.700-1.200	0.90	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	8/26	0	1/26	4.370-60.000	14.20	3.500	45.000	12.4
RADIUM-228	PCI/G	4/7	0	0/7	0.600-0.941	0.74	0.500	0.680	1.25
THORIUM-228	PCI/G	7/8	0	0/8	0.400-1.200	0.83	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/3	0	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	0	0/3			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	0	0/3			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/2	0	1/2	1.000-1.000	1.00	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/3	0	1/3	3.410-3.410	3.41	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	0	0/2			1.000	2.610	NA
CESIUM-137	PCI/G	0/2	0	0/2			0.200	0.200	0.711

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AREA: Plant 6-Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	8/8	0	6/8	0.900-103.000	36.03			1.12
URANIUM, TOTAL	MG/KG	39/48	0	35/48	1.990-54000.000	1896.21	0.100	11.000	3.69
URANIUM-234	PCI/G	8/8	0	7/8	0.900-111.000	34.62			1.04
THORIUM-230	PCI/G	8/10	0	3/10	0.800-9.730	2.86	0.600	1.000	1.91
RADIUM-226	PCI/G	9/10	0	0/10	0.300-1.350	0.76	0.250	0.250	1.47
URANIUM-235/236	PCI/G	4/8	0	4/8	0.700-12.600	6.64	0.100	0.600	0.150
THORIUM-232	PCI/G	8/11	0	1/11	0.600-1.380	0.90	0.600	1.000	1.26
THORIUM, TOTAL	MG/KG	17/41	0	8/41	1.180-45.000	15.56	9.100	45.000	11.1
RADIUM-228	PCI/G	5/10	0	1/10	0.582-1.490	1.00	0.500	0.570	1.31
THORIUM-228	PCI/G	8/10	0	2/10	0.500-1.790	1.06	0.600	1.000	1.38
NEPTUNIUM-237	PCI/G	0/8	0	0/8			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/6	0	0/6			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/6	0	0/6			0.600	0.600	NA
STRONTIUM-90	PCI/G	5/9	0	5/9	0.520-47.600	11.70	0.500	0.500	.436
TECHNETIUM-99	PCI/G	4/7	0	4/7	1.020-37.900	11.21	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/7	0	0/7			1.000	1.100	NA
CESIUM-137	PCI/G	0/7	0	0/7			0.200	0.200	NA

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	1/1	0	1/1	8.300-8.300	8.30			1.12
URANIUM, TOTAL	MG/KG	4/4	0	3/4	2.800-69300.000	27106.70			3.69
URANIUM-234	PCI/G	1/1	0	1/1	8.800-8.800	8.80			1.04
THORIUM-230	PCI/G	2/2	0	0/2	1.000-1.700	1.35			1.91
RADIUM-226	PCI/G	2/3	0	0/3	0.500-1.000	0.75	3.000	3.000	1.47
URANIUM-235/236	PCI/G	1/1	0	1/1	0.700-0.700	0.70			0.150
THORIUM-232	PCI/G	2/2	0	0/2	0.800-1.000	0.90			1.26
THORIUM, TOTAL	MG/KG	2/3	0	0/3	7.296-9.120	8.21	45.000	45.000	11.1
RADIUM-228	PCI/G	1/3	0	0/3	1.000-1.000	1.00	0.500	4.000	1.31
THORIUM-228	PCI/G	2/2	0	0/2	0.900-1.000	0.95			1.38
NEPTUNIUM-237	PCI/G	0/2	0	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	0	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	0	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/2	0	2/2	1.370-2.800	2.09			.436
TECHNETIUM-99	PCI/G	0/1	0	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	0	0/2			1.400	24.300	NA
CESIUM-137	PCI/G	0/2	0	0/2			0.200	1.400	NA

AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	14/14	0	13/14	1.010-144.000	44.12			1.12
URANIUM, TOTAL	MG/KG	32/42	0	31/42	1.740-4763.000	369.82	11.000	11.000	3.69
URANIUM-234	PCI/G	14/14	0	13/14	0.949-144.000	42.17			1.04
THORIUM-230	PCI/G	13/17	0	3/17	0.894-6.210	2.07	0.600	0.800	1.91
RADIUM-226	PCI/G	12/12	0	0/12	0.370-1.370	0.77			1.47
URANIUM-235/236	PCI/G	9/14	0	9/14	0.200-9.290	3.91	0.600	0.600	0.150
THORIUM-232	PCI/G	9/17	0	1/17	0.690-1.590	1.12	0.600	0.800	1.26
THORIUM, TOTAL	MG/KG	21/46	0	9/46	1.720-30.000	13.71	3.600	45.000	11.1
RADIUM-228	PCI/G	8/12	0	2/12	0.564-1.430	0.89	0.500	0.500	1.31
THORIUM-228	PCI/G	13/15	0	3/15	0.656-1.860	1.20	0.600	0.700	1.38
NEPTUNIUM-237	PCI/G	0/13	0	0/13			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/8	0	1/8	1.410-1.410	1.41	0.600	0.600	NA
PLUTONIUM-238	PCI/G	3/8	0	3/8	1.270-158.000	53.65	0.600	0.600	NA
STRONTIUM-90	PCI/G	5/15	0	5/15	0.723-10.700	3.97	0.500	0.600	.436
TECHNETIUM-99	PCI/G	4/13	0	4/13	1.240-4.300	2.15	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/10	0	0/10			1.000	1.700	NA
CESIUM-137	PCI/G	0/10	0	0/10			0.200	0.200	NA

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	4/4	0	4/4	1.200-51.900	25.70			1.12
URANIUM, TOTAL	MG/KG	18/28	0	18/28	4.220-266.000	88.85	3.000	11.000	3.69
URANIUM-234	PCI/G	4/4	0	3/4	1.000-50.600	25.22			1.04
THORIUM-230	PCI/G	5/6	0	2/6	0.944-2.800	1.57	0.600	0.600	1.91
RADIUM-226	PCI/G	3/4	0	0/4	0.720-0.962	0.83	0.300	0.300	1.47
URANIUM-235/236	PCI/G	2/4	0	2/4	3.100-3.630	3.37	0.600	0.600	0.150
THORIUM-232	PCI/G	4/6	0	0/6	0.610-1.070	0.82	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	6/31	0	1/31	2.410-23.000	9.17	3.200	23.000	11.1
RADIUM-228	PCI/G	3/4	0	0/4	0.650-0.898	0.78	0.500	0.500	1.31
THORIUM-228	PCI/G	3/5	0	0/5	0.600-1.170	0.95	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/5	0	0/5			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/5	0	0/5			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/5	0	0/5			0.600	0.600	NA
STRONTIUM-90	PCI/G	3/6	0	3/6	0.600-1.950	1.29	0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/6	0	1/6	2.820-2.820	2.82	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	0	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	0	0/4			0.200	0.200	NA

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	8/8	0	5/8	0.600-71.600	17.53			1.12
URANIUM, TOTAL	MG/KG	23/30	0	20/30	2.180-479.000	92.79	11.000	11.000	3.69
URANIUM-234	PCI/G	8/8	0	4/8	0.610-66.900	17.48			1.04
THORIUM-230	PCI/G	9/11	0	1/11	0.768-4.250	1.39	0.600	0.600	1.91
RADIUM-226	PCI/G	9/10	0	0/10	0.590-0.990	0.87	0.300	0.300	1.47
URANIUM-235/236	PCI/G	2/8	0	2/8	4.680-5.610	5.15	0.600	0.600	0.150
THORIUM-232	PCI/G	7/11	0	0/11	0.630-1.220	0.79	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	13/31	0	2/31	4.280-31.000	9.40	23.000	23.000	11.1
RADIUM-228	PCI/G	7/10	0	0/10	0.710-1.000	0.84	0.500	0.560	1.31
THORIUM-228	PCI/G	8/10	0	0/10	0.741-1.150	0.95	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/9	0	0/9			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	0	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	0	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/11	0	2/11	1.950-2.440	2.20	0.500	0.600	.436
TECHNETIUM-99	PCI/G	1/11	0	1/11	2.700-2.700	2.70	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/10	0	0/10			1.000	1.000	NA
CESIUM-137	PCI/G	0/10	0	0/10			0.200	0.200	NA

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	8/8	0	3/8	2600.000-13300.000	9490.00			11900
ANTIMONY	MG/KG	0/2	0	0/2			2.500	2.700	NA
ARSENIC	MG/KG	17/25	0	0/25	2.400-7.400	4.18	49.900	61.000	8.20
BARIUM	MG/KG	26/26	0	8/26	16.300-151.000	72.45			95.7
BERYLLIUM	MG/KG	5/8	0	5/8	0.730-1.100	0.86	0.890	1.200	0.6
CADMIUM	MG/KG	6/24	0	5/24	0.870-4.600	2.88	0.750	1.220	0.870
CALCIUM	MG/KG	8/8	0	7/8	4340.000-142000.000	44266.25			4340
CHROMIUM	MG/KG	26/26	0	13/26	5.760-51.600	16.30			15.5
COBALT	MG/KG	6/8	0	0/8	6.300-12.700	9.55	5.500	8.200	14.2
COPPER	MG/KG	6/8	0	6/8	14.500-24.500	19.68	13.700	20.100	14.1
CYANIDE	MG/KG	0/4	0	0/4			0.250	0.310	0.270
IRON	MG/KG	8/8	0	0/8	7380.000-20600.000	17210.00			21700
LEAD	MG/KG	33/36	0	6/36	5.300-226.000	23.78	10.600	10.700	26.4
MAGNESIUM	MG/KG	8/8	0	8/8	3060.000-25900.000	12003.75			2780
MANGANESE	MG/KG	8/8	0	0/8	280.000-790.000	475.50			1350
MERCURY	MG/KG	1/26	0	1/26	0.392-0.392	0.39	0.060	0.150	0.3
MOLYBDENUM	MG/KG	3/8	0	3/8	2.400-3.000	2.63	2.500	4.200	NA
NICKEL	MG/KG	7/8	0	4/8	9.100-26.300	20.33	19.400	19.400	20.9
POTASSIUM	MG/KG	8/8	0	1/8	525.000-1450.000	978.63			1230
SELENIUM	MG/KG	2/26	0	0/26	0.670-0.670	0.67	0.220	61.000	0.72
SILICON	MG/KG	0/1	0	0/1			65.200	65.200	1800
SILVER	MG/KG	4/25	0	4/25	1.100-8.300	6.00	0.230	6.100	NA

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	6/8	0	6/8	61.300-442.000	160.02	31.200	96.900	51.1
THALLIUM	MG/KG	1/8	0	0/8	0.230-0.230	0.23	0.200	0.490	0.58
VANADIUM	MG/KG	8/8	0	0/8	16.300-27.700	22.61			30.4
ZINC	MG/KG	8/8	0	4/8	45.800-153.000	73.20			59.6

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	4/4	0	1/4	1070.000-13300.000	8250.00			11900
ARSENIC	MG/KG	4/4	0	0/4	1.800-4.700	3.35			8.20
BARIUM	MG/KG	4/4	0	0/4	13.700-92.300	62.18			95.7
BERYLLIUM	MG/KG	3/4	0	3/4	0.760-0.820	0.79	0.450	0.450	0.6
CADMIUM	MG/KG	4/4	0	3/4	0.510-4.300	2.73			0.870
CALCIUM	MG/KG	4/4	0	3/4	4210.000-49900.000	37327.50			4340
CHROMIUM	MG/KG	4/4	0	3/4	6.000-21.200	16.30			15.5
COBALT	MG/KG	3/4	0	0/4	6.800-10.300	8.93	2.200	2.200	14.2
COPPER	MG/KG	4/4	0	4/4	16.000-28.200	21.45			14.1
IRON	MG/KG	4/4	0	0/4	2300.000-19800.000	15050.00			21700
LEAD	MG/KG	4/4	0	2/4	9.200-51.800	28.83			26.4
MAGNESIUM	MG/KG	4/4	0	3/4	2170.000-16600.000	9390.00			2780
MANGANESE	MG/KG	4/4	0	0/4	167.000-374.000	275.00			1350
MERCURY	MG/KG	0/4	0	0/4			0.110	0.120	0.3
MOLYBDENUM	MG/KG	2/4	0	2/4	2.600-3.100	2.85	2.200	2.400	NA
NICKEL	MG/KG	3/4	0	2/4	19.000-28.200	24.00	4.500	4.500	20.9
POTASSIUM	MG/KG	4/4	0	0/4	529.000-1000.000	866.75			1230
SELENIUM	MG/KG	0/4	0	0/4			0.440	0.470	0.72
SILVER	MG/KG	3/4	0	3/4	6.300-8.000	7.43	2.400	2.400	NA
SODIUM	MG/KG	4/4	0	3/4	30.800-106.000	74.78			51.1
THALLIUM	MG/KG	1/4	0	0/4	0.460-0.460	0.46	0.460	0.470	0.58
VANADIUM	MG/KG	4/4	0	0/4	4.300-25.200	19.30			30.4

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ZINC	MG/KG	4/4	0	0/4	6.200-56.000	40.90			59.6

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	4/4	0	2/4	8940.000-13900.000	11735.00			11900
ANTIMONY	MG/KG	0/2	0	0/2			2.500	2.700	NA
ARSENIC	MG/KG	3/3	0	1/3	2.200-12.200	6.30			8.20
BARIUM	MG/KG	4/4	0	2/4	91.900-142.000	108.90			95.7
BERYLLIUM	MG/KG	2/4	0	2/4	0.950-1.400	1.18	0.820	0.920	0.6
CADMIUM	MG/KG	1/2	0	1/2	2.300-2.300	2.30	1.200	1.200	0.870
CALCIUM	MG/KG	4/4	0	4/4	6240.000-48700.000	18522.50			4340
CHROMIUM	MG/KG	4/4	0	3/4	11.700-20.400	16.43			15.5
COBALT	MG/KG	3/4	0	0/4	10.500-10.800	10.63	6.300	6.300	14.2
COPPER	MG/KG	2/4	0	2/4	17.000-20.200	18.60	19.800	25.200	14.1
CYANIDE	MG/KG	0/4	0	0/4			0.260	0.310	0.270
IRON	MG/KG	4/4	0	2/4	13400.000-28400.000	20925.00			21700
LEAD	MG/KG	4/4	0	0/4	11.300-16.300	13.93			26.4
MAGNESIUM	MG/KG	4/4	0	4/4	3670.000-21100.000	8327.50			2780
MANGANESE	MG/KG	4/4	0	0/4	275.000-685.000	510.75			1350
MERCURY	MG/KG	0/4	0	0/4			0.060	0.060	0.3
MOLYBDENUM	MG/KG	0/4	0	0/4			3.500	4.200	NA
NICKEL	MG/KG	3/4	0	2/4	14.700-25.500	21.40	28.400	28.400	20.9
POTASSIUM	MG/KG	4/4	0	1/4	775.000-1890.000	1095.25			1230
SELENIUM	MG/KG	1/4	0	0/4	0.540-0.540	0.54	0.230	0.500	0.72
SILICON	MG/KG	1/1	0	0/1	119.000-119.000	119.00			1800
SILVER	MG/KG	0/3	0	0/3			0.210	0.460	NA

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	2/4	0	2/4	183.000-556.000	369.50	65.900	111.000	51.1
THALLIUM	MG/KG	1/4	0	0/4	0.230-0.230	0.23	0.210	0.320	0.58
VANADIUM	MG/KG	4/4	0	0/4	10.900-29.500	22.90			30.4
ZINC	MG/KG	4/4	0	4/4	63.700-99.100	83.38			59.6

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	3/3	0	0/3	7880.000-14600.000	10260.00			16100
ANTIMONY	MG/KG	0/1	0	0/1			3.100	3.100	NA
ARSENIC	MG/KG	3/3	0	1/3	3.900-9.800	6.33			9.57
BARIUM	MG/KG	3/3	0	1/3	67.800-179.000	108.17			119
BERYLLIUM	MG/KG	1/3	0	1/3	1.900-1.900	1.90	0.920	1.000	0.620
CADMIUM	MG/KG	0/1	0	0/1			1.400	1.400	0.910
CALCIUM	MG/KG	3/3	0	0/3	6840.000-70200.000	29713.33			150000
CHROMIUM	MG/KG	3/3	0	0/3	13.200-20.600	15.83			20.7
COBALT	MG/KG	2/3	0	1/3	10.200-20.900	15.55	6.100	6.100	15.7
COPPER	MG/KG	2/3	0	0/3	13.400-17.800	15.60	28.600	28.600	20.0
CYANIDE	MG/KG	0/3	0	0/3			0.290	0.360	.17
IRON	MG/KG	3/3	0	1/3	14300.000-34400.000	22833.33			30700
LEAD	MG/KG	3/3	0	2/3	15.100-30.000	20.50			15.6
MAGNESIUM	MG/KG	3/3	0	0/3	3890.000-19500.000	9440.00			42600
MANGANESE	MG/KG	3/3	0	1/3	238.000-2540.000	1179.33			1300
MERCURY	MG/KG	0/3	0	0/3			0.070	0.070	0.29
MOLYBDENUM	MG/KG	0/3	0	0/3			3.900	4.800	2.7
NICKEL	MG/KG	3/3	0	1/3	17.500-52.400	30.23			34.3
POTASSIUM	MG/KG	3/3	0	0/3	678.000-1180.000	920.00			1980
SELENIUM	MG/KG	0/3	0	0/3			0.460	0.570	NA
SILVER	MG/KG	0/2	0	0/2			0.230	0.250	NA
SODIUM	MG/KG	2/3	0	1/3	163.000-373.000	268.00	107.000	107.000	285

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
THALLIUM	MG/KG	0/3	0	0/3			0.230	0.280	0.49
VANADIUM	MG/KG	3/3	0	1/3	15.000-44.000	25.80			37.8
ZINC	MG/KG	3/3	0	2/3	49.800-98.800	81.40			82.0

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	17/17	0	0/17	1520.000-14600.000	8011.77			16100
ANTIMONY	MG/KG	6/9	0	6/9	14.900-22.000	18.47	2.700	4.000	NA
ARSENIC	MG/KG	16/16	0	0/16	2.000-4.600	3.06			9.57
BARIUM	MG/KG	17/17	0	2/17	12.300-130.000	69.61			119
BERYLLIUM	MG/KG	16/17	0	9/17	0.290-1.100	0.73	1.200	1.200	0.620
CADMIUM	MG/KG	15/17	0	15/17	0.920-7.000	4.01	0.670	1.200	0.910
CALCIUM	MG/KG	17/17	0	0/17	4630.000-142000.000	53725.88			150000
CHROMIUM	MG/KG	17/17	0	0/17	4.700-20.000	13.90			20.7
COBALT	MG/KG	17/17	0	0/17	5.900-13.300	9.28			15.7
COPPER	MG/KG	16/17	0	9/17	7.600-26.500	18.79	18.700	18.700	20.0
CYANIDE	MG/KG	6/17	0	5/17	0.150-1.400	0.68	0.100	1.300	.17
IRON	MG/KG	17/17	0	0/17	4680.000-26700.000	14524.12			30700
LEAD	MG/KG	17/17	0	6/17	2.900-31.800	11.83			15.6
MAGNESIUM	MG/KG	17/17	0	1/17	3670.000-45100.000	17120.59			42600
MANGANESE	MG/KG	17/17	0	0/17	188.000-892.000	379.12			1300
MERCURY	MG/KG	2/17	0	0/17	0.050-0.070	0.06	0.060	0.140	0.29
MOLYBDENUM	MG/KG	9/17	0	9/17	2.900-4.600	3.79	1.300	4.200	2.7
NICKEL	MG/KG	17/17	0	0/17	17.000-28.900	22.19			34.3
POTASSIUM	MG/KG	17/17	0	1/17	204.000-2320.000	777.53			1980
SELENIUM	MG/KG	0/15	0	0/15			0.400	2.500	NA
SILVER	MG/KG	9/16	0	9/16	2.900-9.000	6.09	0.670	2.900	NA
SODIUM	MG/KG	16/17	0	2/17	76.100-697.000	168.99	140.000	140.000	285

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
THALLIUM	MG/KG	1/17	0	1/17	0.570-0.570	0.57	0.260	0.560	0.49
VANADIUM	MG/KG	17/17	0	0/17	4.700-32.300	18.12			37.8
ZINC	MG/KG	17/17	0	1/17	17.300-82.100	52.78			82.0

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	2/2	0	0/2	8860.000-10600.000	9730.00			16100
ARSENIC	MG/KG	2/2	0	0/2	2.600-4.300	3.45			9.57
BARIUM	MG/KG	2/2	0	0/2	90.300-117.000	103.65			119
BERYLLIUM	MG/KG	0/2	0	0/2			1.000	1.000	0.620
CALCIUM	MG/KG	2/2	0	0/2	21100.000-64300.000	42700.00			150000
CHROMIUM	MG/KG	2/2	0	0/2	14.300-14.400	14.35			20.7
COBALT	MG/KG	1/2	0	0/2	11.500-11.500	11.50	8.000	8.000	15.7
COPPER	MG/KG	2/2	0	2/2	21.500-22.000	21.75			20.0
CYANIDE	MG/KG	0/2	0	0/2			0.310	0.710	.17
IRON	MG/KG	2/2	0	0/2	16600.000-25100.000	20850.00			30700
LEAD	MG/KG	2/2	0	1/2	11.000-17.600	14.30			15.6
MAGNESIUM	MG/KG	2/2	0	0/2	5700.000-8330.000	7015.00			42600
MANGANESE	MG/KG	2/2	0	0/2	398.000-772.000	585.00			1300
MERCURY	MG/KG	0/2	0	0/2			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/2	0	0/2			4.300	4.300	2.7
NICKEL	MG/KG	2/2	0	0/2	20.200-26.900	23.55			34.3
POTASSIUM	MG/KG	2/2	0	0/2	855.000-1040.000	947.50			1980
SELENIUM	MG/KG	1/2	0	1/2	0.760-0.760	0.76	0.500	0.500	NA
SILVER	MG/KG	1/2	0	1/2	1.400-1.400	1.40	0.250	0.250	NA
SODIUM	MG/KG	2/2	0	1/2	194.000-317.000	255.50			285
THALLIUM	MG/KG	0/2	0	0/2			0.250	0.250	0.49
VANADIUM	MG/KG	2/2	0	0/2	12.600-25.200	18.90			37.8

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
ZINC	MG/KG	2/2	0	0/2	76.600-81.000	78.80			82.0

000263

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	14/33	0	14/33	1.000-9400.000	1381.64	5.000	990.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/33	0	0/33			5.000	500.000	
1,1,2-TRICHLOROTRIFLUOROETHANE		0/10	0	0/10			420.000	830.000	
1,1-DICHLOROETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/23	0	0/23			5.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/23	0	0/23			5.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	0	0/4			10.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	0	0/4			10.000	12.000	
2-BUTANONE	UG/KG	3/29	0	3/29	3.000-13.000	7.00	11.000	1200.000	
4-METHYL-2-PENTANONE	UG/KG	0/29	0	0/29			11.000	830.000	
ACETONE	UG/KG	14/33	0	14/33	6.000-26.000	12.14	10.000	2100.000	
BENZENE	UG/KG	0/33	0	0/33			5.000	420.000	
BROMODICHLOROMETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
BROMOFORM	UG/KG	0/4	0	0/4			10.000	12.000	
BROMOMETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/33	0	0/33			5.000	580.000	
CARBON TETRACHLORIDE	UG/KG	2/33	0	2/33	1100.000-1200.000	1150.00	5.000	750.000	
CHLOROBENZENE	UG/KG	0/33	0	0/33			5.000	920.000	
CHLOROETHANE	UG/KG	0/23	0	0/23			10.000	13.000	
CHLOROFORM	UG/KG	0/4	0	0/4			10.000	12.000	
CHLOROMETHANE	UG/KG	0/23	0	0/23			10.000	13.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	0	0/4			10.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
ETHYLBENZENE	UG/KG	0/33	0	0/33			5.000	420.000	
METHYLENE CHLORIDE	UG/KG	17/33	0	17/33	1.000-5500.000	645.53	5.000	500.000	
STYRENE	UG/KG	0/4	0	0/4			10.000	12.000	
TETRACHLOROETHENE	UG/KG	1/33	0	1/33	1600.000-1600.000	1600.00	5.000	2300.000	
TOLUENE	UG/KG	18/33	0	18/33	1.000-110.000	25.33	6.000	830.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	0	0/4			10.000	12.000	
TRICHLOROETHENE	UG/KG	15/33	0	15/33	3.000-500.000	80.07	5.000	1100.000	
TRICHLOROFLUOROMETHANE	UG/KG	0/29	0	0/29			11.000	830.000	
VINYL ACETATE	UG/KG	0/2	0	0/2			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/23	0	0/23			10.000	13.000	
XYLENES, TOTAL	UG/KG	3/23	0	3/23	2.000-6.000	3.67	5.000	12.000	

000265

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/4	0	0/4			10.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	0	0/4			10.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	0	0/4			10.000	12.000	
2-BUTANONE	UG/KG	1/1	0	1/1	12.000-12.000	12.00			
ACETONE	UG/KG	0/4	0	0/4			10.000	84.000	
BENZENE	UG/KG	0/4	0	0/4			10.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
BROMOFORM	UG/KG	0/4	0	0/4			10.000	12.000	
BROMOMETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/4	0	0/4			10.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/4	0	0/4			10.000	12.000	
CHLOROBENZENE	UG/KG	0/4	0	0/4			10.000	12.000	
CHLOROETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
CHLOROFORM	UG/KG	0/4	0	0/4			10.000	12.000	
CHLOROMETHANE	UG/KG	0/4	0	0/4			10.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	0	0/4			10.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	0	0/4			10.000	12.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
ETHYLBENZENE	UG/KG	0/4	0	0/4			10.000	12.000	
METHYLENE CHLORIDE	UG/KG	1/4	0	1/4	2.000-2.000	2.00	10.000	12.000	
STYRENE	UG/KG	0/4	0	0/4			10.000	12.000	
TETRACHLOROETHENE	UG/KG	0/4	0	0/4			10.000	12.000	
TOLUENE	UG/KG	0/4	0	0/4			10.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	0	0/4			10.000	12.000	
TRICHLOROETHENE	UG/KG	0/4	0	0/4			10.000	12.000	
VINYL ACETATE	UG/KG	0/2	0	0/2			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/4	0	0/4			10.000	12.000	
XYLENES, TOTAL	UG/KG	1/4	0	1/4	2.000-2.000	2.00	10.000	12.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
1,1-DICHLOROETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
1,1-DICHLOROETHENE	UG/KG	0/3	0	0/3			11.000	14.000	
1,2-DICHLOROETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/3	0	1/3	2.000-2.000	2.00	13.000	14.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	0	0/3			11.000	14.000	
2-BUTANONE	UG/KG	1/1	0	1/1	12.000-12.000	12.00			
ACETONE	UG/KG	0/3	0	0/3			13.000	76.000	
BENZENE	UG/KG	0/3	0	0/3			11.000	14.000	
BROMODICHLOROMETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
BROMOFORM	UG/KG	0/3	0	0/3			11.000	14.000	
BROMOMETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
CARBON DISULFIDE	UG/KG	0/3	0	0/3			11.000	14.000	
CARBON TETRACHLORIDE	UG/KG	0/3	0	0/3			11.000	14.000	
CHLOROBENZENE	UG/KG	0/3	0	0/3			11.000	14.000	
CHLOROETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
CHLOROFORM	UG/KG	0/3	0	0/3			11.000	14.000	
CHLOROMETHANE	UG/KG	0/3	0	0/3			11.000	14.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	0	0/3			11.000	14.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	0	0/3			11.000	14.000	

AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
ETHYLBENZENE	UG/KG	0/3	0	0/3			11.000	14.000	
METHYLENE CHLORIDE	UG/KG	0/3	0	0/3			12.000	14.000	
STYRENE	UG/KG	0/3	0	0/3			11.000	14.000	
TETRACHLOROETHENE	UG/KG	0/3	0	0/3			11.000	14.000	
TOLUENE	UG/KG	0/3	0	0/3			11.000	14.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	0	0/3			11.000	14.000	
TRICHLOROETHENE	UG/KG	0/3	0	0/3			11.000	14.000	
VINYL ACETATE	UG/KG	0/1	0	0/1			14.000	14.000	
VINYL CHLORIDE	UG/KG	0/3	0	0/3			11.000	14.000	
XYLENES, TOTAL	UG/KG	1/3	0	1/3	3.000-3.000	3.00	13.000	14.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	3/20	0	3/20	2.000-190.000	83.00	5.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/20	0	1/20	15.000-15.000	15.00	5.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/20	0	0/20			5.000	12.000	
1,1-DICHLOROETHANE	UG/KG	2/20	0	2/20	75.000-460.000	267.50	5.000	12.000	
1,1-DICHLOROETHENE	UG/KG	5/20	0	5/20	1.000-29.000	16.20	5.000	12.000	
1,2-DICHLOROETHANE	UG/KG	2/20	0	2/20	6.000-10.000	8.00	5.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	8/20	0	8/20	3.000-320.000	56.88	5.000	200.000	
1,2-DICHLOROPROPANE	UG/KG	0/20	0	0/20			5.000	12.000	
2-BUTANONE	UG/KG	4/19	0	4/19	2.000-13.000	7.75	4.000	29.000	
2-HEXANONE	UG/KG	0/19	0	0/19			10.000	14.000	
4-METHYL-2-PENTANONE	UG/KG	2/19	0	2/19	2.000-3.000	2.50	1.000	14.000	
ACETONE	UG/KG	2/20	0	2/20	37.000-100.000	68.50	12.000	130.000	
BENZENE	UG/KG	0/20	0	0/20			5.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/20	0	0/20			5.000	12.000	
BROMOFORM	UG/KG	0/20	0	0/20			5.000	12.000	
BROMOMETHANE	UG/KG	0/20	0	0/20			10.000	14.000	
CARBON DISULFIDE	UG/KG	2/20	0	2/20	2.000-3.000	2.50	5.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/20	0	0/20			5.000	12.000	
CHLOROBENZENE	UG/KG	0/20	0	0/20			5.000	12.000	
CHLOROETHANE	UG/KG	2/20	0	2/20	2.000-4.000	3.00	10.000	14.000	
CHLOROFORM	UG/KG	2/20	0	2/20	3.000-4.000	3.50	5.000	12.000	
CHLOROMETHANE	UG/KG	0/20	0	0/20			10.000	13000.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/20	0	0/20			5.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/20	0	0/20			5.000	12.000	
ETHYLBENZENE	UG/KG	1/20	0	1/20	2.000-2.000	2.00	5.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/20	0	0/20			5.000	27.000	
STYRENE	UG/KG	0/20	0	0/20			5.000	12.000	
TETRACHLOROETHENE	UG/KG	2/20	0	2/20	2.000-3.000	2.50	5.000	110.000	
TOLUENE	UG/KG	5/20	0	5/20	2.000-7.000	4.00	5.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/20	0	0/20			5.000	12.000	
TRICHLOROETHENE	UG/KG	5/20	0	5/20	120.000-570.000	318.00	5.000	12.000	
VINYL ACETATE	UG/KG	0/19	0	0/19			10.000	14.000	
VINYL CHLORIDE	UG/KG	1/20	0	1/20	3.000-3.000	3.00	10.000	14.000	
XYLENES, TOTAL	UG/KG	3/20	0	3/20	3.000-8.000	5.00	3.000	12.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
1,1-DICHLOROETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
1,1-DICHLOROETHENE	UG/KG	0/2	0	0/2			13.000	64.000	
1,2-DICHLOROETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/2	0	1/2	48.000-48.000	48.00	13.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	0	0/2			13.000	64.000	
ACETONE	UG/KG	0/2	0	0/2			13.000	67.000	
BENZENE	UG/KG	0/2	0	0/2			13.000	64.000	
BROMODICHLOROMETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
BROMOFORM	UG/KG	0/2	0	0/2			13.000	64.000	
BROMOMETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
CARBON DISULFIDE	UG/KG	0/2	0	0/2			13.000	64.000	
CARBON TETRACHLORIDE	UG/KG	0/2	0	0/2			13.000	64.000	
CHLOROBENZENE	UG/KG	0/2	0	0/2			13.000	64.000	
CHLOROETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
CHLOROFORM	UG/KG	0/2	0	0/2			13.000	64.000	
CHLOROMETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	0	0/2			13.000	64.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	0	0/2			13.000	64.000	
ETHYLBENZENE	UG/KG	0/2	0	0/2			13.000	64.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
METHYLENE CHLORIDE	UG/KG	0/2	0	0/2			13.000	64.000	
STYRENE	UG/KG	0/2	0	0/2			13.000	64.000	
TETRACHLOROETHENE	UG/KG	1/2	0	1/2	520.000-520.000	520.00	13.000	13.000	
TOLUENE	UG/KG	0/2	0	0/2			13.000	64.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	0	0/2			13.000	64.000	
TRICHLOROETHENE	UG/KG	1/2	0	1/2	330.000-330.000	330.00	13.000	13.000	
VINYL CHLORIDE	UG/KG	0/2	0	0/2			13.000	64.000	
XYLENES, TOTAL	UG/KG	0/2	0	0/2			13.000	64.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/12	0	0/12			340.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/21	0	0/21			930.000	5000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/21	0	0/21			350.000	5000.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	0	0/3			370.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/13	0	0/13			370.000	5000.000	
2,4-DINITROPHENOL	UG/KG	0/3	0	0/3			930.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/22	0	0/22			340.000	5000.000	
2,6-DINITROTOLUENE	UG/KG	0/4	0	0/4			340.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	0	0/4			340.000	410.000	
2-CHLOROPHENOL	UG/KG	0/3	0	0/3			370.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	1/4	0	1/4	49.000-49.000	49.00	340.000	410.000	
2-METHYLPHENOL	UG/KG	0/11	0	0/11			350.000	420.000	
2-NITROANILINE	UG/KG	0/4	0	0/4			850.000	1000.000	
2-NITROPHENOL	UG/KG	0/3	0	0/3			370.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	0	0/4			340.000	410.000	
3-NITROANILINE	NONE	0/4	0	0/4			850.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	0	0/3			930.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	0	0/4			340.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	0	0/3			370.000	410.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	0	0/4			340.000	410.000	
4-METHYLPHENOL	UG/KG	0/11	0	0/11			350.000	420.000	
4-NITROANILINE	UG/KG	0/4	0	0/4			850.000	1000.000	
4-NITROPHENOL	UG/KG	0/3	0	0/3			930.000	1000.000	
ACENAPHTHENE	UG/KG	2/4	0	2/4	52.000-530.000	291.00	390.000	410.000	
ACENAPHTHYLENE	UG/KG	0/4	0	0/4			340.000	410.000	
ANTHRACENE	UG/KG	2/4	0	2/4	52.000-740.000	396.00	390.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	2/4	0	2/4	330.000-1600.000	965.00	390.000	410.000	
BENZO(A)PYRENE	UG/KG	2/4	0	2/4	230.000-1100.000	665.00	390.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	2/4	0	2/4	520.000-1500.000	1010.00	390.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/4	0	2/4	260.000-640.000	450.00	390.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	2/4	0	2/4	360.000-1200.000	780.00	390.000	410.000	
BENZOIC ACID	UG/KG	0/3	0	0/3			930.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/4	0	0/4			340.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	0	0/4			340.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	0	0/4			340.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	0	0/4			340.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/4	0	1/4	130.000-130.000	130.00	370.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	
CARBAZOLE	UG/KG	2/4	0	2/4	73.000-570.000	321.50	390.000	410.000	
CHRYSENE	UG/KG	2/4	0	2/4	430.000-1600.000	1015.00	390.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/4	0	2/4	100.000-360.000	230.00	390.000	410.000	
DIBENZOFURAN	UG/KG	1/4	0	1/4	360.000-360.000	360.00	340.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	
FLUORANTHENE	UG/KG	2/4	0	2/4	800.000-3600.000	2200.00	390.000	410.000	
FLUORENE	UG/KG	2/4	0	2/4	46.000-660.000	353.00	390.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/22	0	0/22			340.000	5000.000	
HEXACHLOROBUTADIENE	UG/KG	0/22	0	0/22			340.000	5000.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	0	0/4			340.000	410.000	
HEXACHLOROETHANE	UG/KG	0/22	0	0/22			340.000	5000.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/4	0	2/4	380.000-1000.000	690.00	390.000	410.000	
ISOPHORONE	UG/KG	0/4	0	0/4			340.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	0	0/4			340.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	0	0/4			340.000	410.000	
NAPHTHALENE	UG/KG	1/4	0	1/4	63.000-63.000	63.00	340.000	410.000	
NITROBENZENE	UG/KG	0/22	0	0/22			340.000	5000.000	
P-CHLOROANILINE	UG/KG	0/4	0	0/4			340.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/21	0	0/21			930.000	5000.000	
PHENANTHRENE	UG/KG	2/4	0	2/4	440.000-3600.000	2020.00	390.000	410.000	
PHENOL	UG/KG	0/3	0	0/3			370.000	410.000	
PYRENE	UG/KG	2/4	0	2/4	650.000-3000.000	1825.00	390.000	410.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
PYRIDINE	UG/KG	0/18	0	0/18			350.000	10000.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	0	0/4			860.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	0	0/4			340.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	0	0/4			340.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	0	0/4			340.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/4	0	0/4			860.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/4	0	0/4			340.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/4	0	0/4			340.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	0	0/4			340.000	410.000	
2-CHLOROPHENOL	UG/KG	0/4	0	0/4			340.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	0	0/4			340.000	410.000	
2-METHYLPHENOL	UG/KG	0/4	0	0/4			340.000	410.000	
2-NITROANILINE	UG/KG	0/4	0	0/4			860.000	1000.000	
2-NITROPHENOL	UG/KG	0/4	0	0/4			340.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	0	0/4			340.000	410.000	
3-NITROANILINE	NONE	0/4	0	0/4			860.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	0	0/4			860.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	0	0/4			340.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	0	0/4			340.000	410.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	0	0/4			340.000	410.000	
4-METHYLPHENOL	UG/KG	0/4	0	0/4			340.000	410.000	
4-NITROANILINE	UG/KG	0/4	0	0/4			860.000	1000.000	
4-NITROPHENOL	UG/KG	0/4	0	0/4			860.000	1000.000	
ACENAPHTHENE	UG/KG	0/4	0	0/4			340.000	410.000	
ACENAPHTHYLENE	UG/KG	0/4	0	0/4			340.000	410.000	
ANTHRACENE	UG/KG	0/4	0	0/4			340.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	0	0/4			340.000	410.000	
BENZO(A)PYRENE	UG/KG	0/4	0	0/4			340.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	0	0/4			340.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	0	0/4			340.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	0	0/4			340.000	410.000	
BENZOIC ACID	UG/KG	0/4	0	0/4			860.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/4	0	0/4			340.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	0	0/4			340.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	0	0/4			340.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	0	0/4			340.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/4	0	2/4	45.000-53.000	49.00	380.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	
CARBAZOLE	UG/KG	0/4	0	0/4			340.000	410.000	
CHRYSENE	UG/KG	0/4	0	0/4			340.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	0	0/4			340.000	410.000	
DIBENZOFURAN	UG/KG	0/4	0	0/4			340.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/4	0	0/4			340.000	410.000	
FLUORANTHENE	UG/KG	0/4	0	0/4			340.000	410.000	
FLUORENE	UG/KG	0/4	0	0/4			340.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	0	0/4			340.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	0	0/4			340.000	410.000	
HEXACHLOROETHANE	UG/KG	0/4	0	0/4			340.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	0	0/4			340.000	410.000	
ISOPHORONE	UG/KG	0/4	0	0/4			340.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	0	0/4			340.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	0	0/4			340.000	410.000	
NAPHTHALENE	UG/KG	0/4	0	0/4			340.000	410.000	
NITROBENZENE	UG/KG	0/4	0	0/4			340.000	410.000	
P-CHLOROANILINE	UG/KG	0/4	0	0/4			340.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/4	0	0/4			860.000	1000.000	
PHENANTHRENE	UG/KG	0/4	0	0/4			340.000	410.000	
PHENOL	UG/KG	0/4	0	0/4			340.000	410.000	
PYRENE	UG/KG	0/4	0	0/4			340.000	410.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	0	0/3			380.000	470.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	0	0/3			380.000	470.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	0	0/3			380.000	470.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	0	0/3			380.000	470.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	0	0/3			950.000	1200.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	0	0/3			380.000	470.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	0	0/3			380.000	470.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	0	0/3			380.000	470.000	
2,4-DINITROPHENOL	UG/KG	0/3	0	0/3			950.000	1200.000	
2,4-DINITROTOLUENE	UG/KG	0/3	0	0/3			380.000	470.000	
2,6-DINITROTOLUENE	UG/KG	0/3	0	0/3			380.000	470.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	0	0/3			380.000	470.000	
2-CHLOROPHENOL	UG/KG	0/3	0	0/3			380.000	470.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	0	0/3			380.000	470.000	
2-METHYLPHENOL	UG/KG	0/3	0	0/3			380.000	470.000	
2-NITROANILINE	UG/KG	0/3	0	0/3			950.000	1200.000	
2-NITROPHENOL	UG/KG	0/3	0	0/3			380.000	470.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	0	0/3			380.000	470.000	
3-NITROANILINE	NONE	0/3	0	0/3			950.000	1200.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	0	0/3			950.000	1200.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	0	0/3			380.000	470.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	0	0/3			380.000	470.000	

AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	0	0/3			380.000	470.000	
4-METHYLPHENOL	UG/KG	0/3	0	0/3			380.000	470.000	
4-NITROANILINE	UG/KG	0/3	0	0/3			950.000	1200.000	
4-NITROPHENOL	UG/KG	0/3	0	0/3			950.000	1200.000	
ACENAPHTHENE	UG/KG	0/3	0	0/3			380.000	470.000	
ACENAPHTHYLENE	UG/KG	0/3	0	0/3			380.000	470.000	
ANTHRACENE	UG/KG	0/3	0	0/3			380.000	470.000	
BENZO(A)ANTHRACENE	UG/KG	1/3	0	1/3	84.000-84.000	84.00	380.000	470.000	
BENZO(A)PYRENE	UG/KG	1/2	0	1/2	63.000-63.000	63.00	380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	1/3	0	1/3	110.000-110.000	110.00	380.000	470.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/3	0	1/3	53.000-53.000	53.00	380.000	470.000	
BENZO(K)FLUORANTHENE	UG/KG	1/3	0	1/3	120.000-120.000	120.00	380.000	470.000	
BENZOIC ACID	UG/KG	0/3	0	0/3			950.000	1200.000	
BENZYL ALCOHOL	UG/KG	0/3	0	0/3			380.000	470.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	0	0/3			380.000	470.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	0	0/3			380.000	470.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	0	0/3			380.000	470.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/3	0	1/3	61.000-61.000	61.00	380.000	470.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	0	0/3			380.000	470.000	
CARBAZOLE	UG/KG	0/3	0	0/3			380.000	470.000	
CHRYSENE	UG/KG	1/3	0	1/3	110.000-110.000	110.00	380.000	470.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	0	0/3			380.000	470.000	

AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	0	0/3			380.000	470.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	0	0/2			380.000	420.000	
DIBENZOFURAN	UG/KG	0/3	0	0/3			380.000	470.000	
DIETHYL PHTHALATE	UG/KG	0/3	0	0/3			380.000	470.000	
DIMETHYL PHTHALATE	UG/KG	0/3	0	0/3			380.000	470.000	
FLUORANTHENE	UG/KG	2/3	0	2/3	49.000-220.000	134.50	470.000	470.000	
FLUORENE	UG/KG	0/3	0	0/3			380.000	470.000	
HEXACHLOROBENZENE	UG/KG	0/3	0	0/3			380.000	470.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	0	0/3			380.000	470.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	0	0/3			380.000	470.000	
HEXACHLOROETHANE	UG/KG	0/3	0	0/3			380.000	470.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/3	0	1/3	78.000-78.000	78.00	380.000	470.000	
ISOPHORONE	UG/KG	0/3	0	0/3			380.000	470.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	0	0/3			380.000	470.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	0	0/3			380.000	470.000	
NAPHTHALENE	UG/KG	0/3	0	0/3			380.000	470.000	
NITROBENZENE	UG/KG	0/3	0	0/3			380.000	470.000	
P-CHLOROANILINE	UG/KG	0/3	0	0/3			380.000	470.000	
PENTACHLOROPHENOL	UG/KG	0/3	0	0/3			950.000	1200.000	
PHENANTHRENE	UG/KG	2/3	0	2/3	40.000-130.000	85.00	470.000	470.000	
PHENOL	UG/KG	0/3	0	0/3			380.000	470.000	
PYRENE	UG/KG	2/3	0	2/3	43.000-180.000	111.50	470.000	470.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/18	0	0/18			340.000	500.000	
1,2-DICHLOROBENZENE	UG/KG	0/18	0	0/18			340.000	500.000	
1,3-DICHLOROBENZENE	UG/KG	0/18	0	0/18			340.000	500.000	
1,4-DICHLOROBENZENE	UG/KG	0/18	0	0/18			340.000	500.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/19	0	0/19			1000.000	2400.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/19	0	0/19			340.000	500.000	
2,4-DICHLOROPHENOL	UG/KG	0/19	0	0/19			340.000	500.000	
2,4-DIMETHYLPHENOL	UG/KG	0/19	0	0/19			340.000	500.000	
2,4-DINITROPHENOL	UG/KG	0/19	0	0/19			1000.000	2400.000	
2,4-DINITROTOLUENE	UG/KG	0/18	0	0/18			340.000	500.000	
2,6-DINITROTOLUENE	UG/KG	0/18	0	0/18			340.000	500.000	
2-CHLORONAPHTHALENE	UG/KG	0/18	0	0/18			340.000	500.000	
2-CHLOROPHENOL	UG/KG	0/19	0	0/19			340.000	500.000	
2-METHYLNAPHTHALENE	UG/KG	0/18	0	0/18			340.000	500.000	
2-METHYLPHENOL	UG/KG	0/19	0	0/19			340.000	500.000	
2-NITROANILINE	UG/KG	0/18	0	0/18			1000.000	2400.000	
2-NITROPHENOL	UG/KG	0/19	0	0/19			340.000	500.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/19	0	0/19			410.000	1000.000	
3-NITROANILINE	NONE	0/18	0	0/18			1000.000	2400.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/19	0	0/19			1000.000	2400.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/18	0	0/18			340.000	500.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	1/19	0	1/19	88.000-88.000	88.00	340.000	500.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/18	0	0/18			340.000	500.000	
4-METHYLPHENOL	UG/KG	0/19	0	0/19			340.000	500.000	
4-NITROANILINE	UG/KG	0/18	0	0/18			1000.000	2400.000	
4-NITROPHENOL	UG/KG	1/18	0	1/18	58.000-58.000	58.00	1000.000	2400.000	
ACENAPHTHENE	UG/KG	0/18	0	0/18			340.000	500.000	
ACENAPHTHYLENE	UG/KG	0/18	0	0/18			340.000	500.000	
ANTHRACENE	UG/KG	0/19	0	0/19			340.000	500.000	
BENZO(A)ANTHRACENE	UG/KG	0/19	0	0/19			340.000	500.000	
BENZO(A)PYRENE	UG/KG	0/19	0	0/19			340.000	500.000	
BENZO(B)FLUORANTHENE	UG/KG	0/19	0	0/19			340.000	500.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/19	0	0/19			340.000	500.000	
BENZO(K)FLUORANTHENE	UG/KG	0/19	0	0/19			340.000	500.000	
BENZOIC ACID	UG/KG	2/19	0	2/19	46.000-53.000	49.50	1000.000	2400.000	
BENZYL ALCOHOL	UG/KG	0/18	0	0/18			340.000	500.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/18	0	0/18			340.000	500.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/18	0	0/18			340.000	500.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/18	0	0/18			340.000	500.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/19	0	2/19	250.000-380.000	315.00	340.000	500.000	
BUTYL BENZYL PHTHALATE	UG/KG	1/19	0	1/19	430.000-430.000	430.00	340.000	500.000	
CARBAZOLE	UG/KG	0/1	0	0/1			410.000	410.000	
CHRYSENE	UG/KG	0/19	0	0/19			340.000	500.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/19	0	0/19			340.000	500.000	

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AREA: Plant 6 Area
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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	1/19	0	1/19	280.000-280.000	280.00	340.000	500.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/19	0	0/19			340.000	500.000	
DIBENZOFURAN	UG/KG	0/18	0	0/18			340.000	500.000	
DIETHYL PHTHALATE	UG/KG	0/18	0	0/18			340.000	500.000	
DIMETHYL PHTHALATE	UG/KG	0/18	0	0/18			340.000	500.000	
FLUORANTHENE	UG/KG	0/19	0	0/19			340.000	500.000	
FLUORENE	UG/KG	0/17	0	0/17			340.000	500.000	
HEXACHLOROBENZENE	UG/KG	0/18	0	0/18			340.000	500.000	
HEXACHLOROBUTADIENE	UG/KG	0/18	0	0/18			340.000	500.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/18	0	0/18			340.000	500.000	
HEXACHLOROETHANE	UG/KG	0/18	0	0/18			340.000	500.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/19	0	0/19			340.000	500.000	
ISOPHORONE	UG/KG	0/18	0	0/18			340.000	500.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/18	0	0/18			340.000	500.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/18	0	0/18			340.000	500.000	
NAPHTHALENE	UG/KG	0/18	0	0/18			340.000	500.000	
NITROBENZENE	UG/KG	0/18	0	0/18			340.000	500.000	
P-CHLOROANILINE	UG/KG	0/18	0	0/18			340.000	500.000	
PENTACHLOROPHENOL	UG/KG	1/19	0	1/19	82.000-82.000	82.00	1000.000	2400.000	
PHENANTHRENE	UG/KG	0/19	0	0/19			340.000	500.000	
PHENOL	UG/KG	1/19	0	1/19	56.000-56.000	56.00	340.000	500.000	
PYRENE	UG/KG	1/19	0	1/19	50.000-50.000	50.00	340.000	500.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	0	0/2			420.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	0	0/2			420.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	0	0/2			420.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	0	0/2			420.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	0	0/2			1000.000	1100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/2	0	0/2			1000.000	1100.000	
2,4-DINITROTOLUENE	UG/KG	0/2	0	0/2			420.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/2	0	0/2			420.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	0	0/2			420.000	420.000	
2-CHLOROPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	0	0/2			420.000	420.000	
2-METHYLPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
2-NITROANILINE	UG/KG	0/2	0	0/2			1000.000	1100.000	
2-NITROPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	0	0/2			420.000	420.000	
3-NITROANILINE	NONE	0/2	0	0/2			1000.000	1100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	0	0/2			1000.000	1100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	0	0/2			420.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	

AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	0	0/2			420.000	420.000	
4-METHYLPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
4-NITROANILINE	UG/KG	0/2	0	0/2			1000.000	1100.000	
4-NITROPHENOL	UG/KG	0/2	0	0/2			1000.000	1100.000	
ACENAPHTHENE	UG/KG	0/2	0	0/2			420.000	420.000	
ACENAPHTHYLENE	UG/KG	0/2	0	0/2			420.000	420.000	
ANTHRACENE	UG/KG	0/2	0	0/2			420.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	0	0/2			420.000	420.000	
BENZO(A)PYRENE	UG/KG	0/2	0	0/2			420.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	0	0/2			420.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	0	0/2			420.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	0	0/2			420.000	420.000	
BENZOIC ACID	UG/KG	0/2	0	0/2			1000.000	1100.000	
BENZYL ALCOHOL	UG/KG	0/2	0	0/2			420.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	0	0/2			420.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	0	0/2			420.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	2/2	0	2/2	71.000-73.000	72.00			
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/2	0	0/2			420.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	0	0/2			420.000	420.000	
CARBAZOLE	UG/KG	0/2	0	0/2			420.000	420.000	
CHRYSENE	UG/KG	0/2	0	0/2			420.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	0	0/2			420.000	420.000	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	0	0/2			420.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	0	0/2			420.000	420.000	
DIBENZOFURAN	UG/KG	0/2	0	0/2			420.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/2	0	0/2			420.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/2	0	0/2			420.000	420.000	
FLUORANTHENE	UG/KG	1/2	0	1/2	53.000-53.000	53.00	420.000	420.000	
FLUORENE	UG/KG	0/2	0	0/2			420.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/2	0	0/2			420.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	0	0/2			420.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	0	0/2			420.000	420.000	
HEXACHLOROETHANE	UG/KG	0/2	0	0/2			420.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	0	0/2			420.000	420.000	
ISOPHORONE	UG/KG	0/2	0	0/2			420.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	0	0/2			420.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	0	0/2			420.000	420.000	
NAPHTHALENE	UG/KG	0/2	0	0/2			420.000	420.000	
NITROBENZENE	UG/KG	0/2	0	0/2			420.000	420.000	
P-CHLOROANILINE	UG/KG	0/2	0	0/2			420.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
PHENANTHRENE	UG/KG	0/2	0	0/2			1000.000	1100.000	
PHENOL	UG/KG	0/2	0	0/2			420.000	420.000	
PYRENE	UG/KG	1/2	0	1/2	49.000-49.000	49.00	420.000	420.000	

AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/3	0	0/3			3.400	3.800	
4,4'-DDE	UG/KG	0/3	0	0/3			3.400	3.800	
4,4'-DDT	UG/KG	0/3	0	0/3			3.400	3.800	
ALDRIN	UG/KG	0/3	0	0/3			1.700	2.000	
ALPHA-BHC	UG/KG	0/3	0	0/3			1.700	2.000	
ALPHA-CHLORDANE	UG/KG	0/3	0	0/3			1.700	2.000	
AROCLOR-1016	UG/KG	0/3	0	0/3			34.000	38.000	
AROCLOR-1221	UG/KG	0/3	0	0/3			68.000	78.000	
AROCLOR-1232	UG/KG	0/3	0	0/3			34.000	38.000	
AROCLOR-1242	UG/KG	0/3	0	0/3			34.000	38.000	
AROCLOR-1248	UG/KG	0/3	0	0/3			34.000	38.000	
AROCLOR-1254	UG/KG	1/3	0	1/3	92.000-92.000	92.00	37.000	38.000	
AROCLOR-1260	UG/KG	0/3	0	0/3			34.000	38.000	
BETA-BHC	UG/KG	0/3	0	0/3			1.700	2.000	
DELTA-BHC	UG/KG	0/3	0	0/3			1.700	2.000	
DIELDRIN	UG/KG	0/3	0	0/3			3.400	3.800	
ENDOSULFAN II	UG/KG	0/3	0	0/3			3.400	3.800	
ENDOSULFAN SULFATE	UG/KG	0/3	0	0/3			3.400	3.800	
ENDOSULFAN-I	UG/KG	0/3	0	0/3			1.700	2.000	
ENDRIN	UG/KG	1/21	0	1/21	3.900-3.900	3.90	2.100	10.000	
ENDRIN ALDEHYDE	UG/KG	0/3	0	0/3			3.400	3.800	
ENDRIN KETONE	UG/KG	0/3	0	0/3			3.400	3.800	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/21	0	0/21			1.400	10.000	
GAMMA-CHLORDANE	UG/KG	0/21	0	0/21			1.700	100.000	
HEPTACHLOR	UG/KG	0/21	0	0/21			1.000	10.000	
HEPTACHLOR EPOXIDE	UG/KG	0/21	0	0/21			1.700	35.000	
METHOXYCHLOR	UG/KG	0/21	0	0/21			10.000	74.000	
TOXAPHENE	UG/KG	0/21	0	0/21			84.000	500.000	

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AREA: Plant 6 Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/4	0	0/4			3.400	4.100	
4,4'-DDE	UG/KG	0/4	0	0/4			3.400	4.100	
4,4'-DDT	UG/KG	0/4	0	0/4			3.400	4.100	
ALDRIN	UG/KG	0/4	0	0/4			1.800	2.100	
ALPHA-BHC	UG/KG	0/4	0	0/4			1.800	2.100	
ALPHA-CHLORDANE	UG/KG	0/4	0	0/4			1.800	2.100	
AROCLOR-1016	UG/KG	0/4	0	0/4			34.000	41.000	
AROCLOR-1221	UG/KG	0/4	0	0/4			69.000	83.000	
AROCLOR-1232	UG/KG	0/4	0	0/4			34.000	41.000	
AROCLOR-1242	UG/KG	0/4	0	0/4			34.000	41.000	
AROCLOR-1248	UG/KG	0/4	0	0/4			34.000	41.000	
AROCLOR-1254	UG/KG	1/4	0	1/4	47.000-47.000	47.00	34.000	41.000	
AROCLOR-1260	UG/KG	0/4	0	0/4			34.000	41.000	
BETA-BHC	UG/KG	0/4	0	0/4			1.800	2.100	
DELTA-BHC	UG/KG	0/4	0	0/4			1.800	2.100	
DIELDRIN	UG/KG	0/4	0	0/4			3.400	4.100	
ENDOSULFAN II	UG/KG	0/4	0	0/4			3.400	4.100	
ENDOSULFAN SULFATE	UG/KG	0/4	0	0/4			3.400	4.100	
ENDOSULFAN-I	UG/KG	0/4	0	0/4			1.800	2.100	
ENDRIN	UG/KG	0/4	0	0/4			3.400	4.100	
ENDRIN ALDEHYDE	UG/KG	0/4	0	0/4			3.400	4.100	
ENDRIN KETONE	UG/KG	0/4	0	0/4			3.400	4.100	

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AREA: Plant 6 Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/4	0	0/4			1.800	2.100	
GAMMA-CHLORDANE	UG/KG	0/4	0	0/4			1.800	2.100	
HEPTACHLOR	UG/KG	0/4	0	0/4			1.800	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/4	0	0/4			1.800	2.100	
METHOXYCHLOR	UG/KG	0/4	0	0/4			18.000	21.000	
TOXAPHENE	UG/KG	0/4	0	0/4			180.000	210.000	

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AREA: Plant 6 Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/2	0	0/2			3.800	4.200	
4,4'-DDE	UG/KG	0/2	0	0/2			3.800	4.200	
4,4'-DDT	UG/KG	0/2	0	0/2			3.800	4.200	
ALDRIN	UG/KG	0/2	0	0/2			2.000	2.200	
ALPHA-BHC	UG/KG	0/2	0	0/2			2.000	2.200	
ALPHA-CHLORDANE	UG/KG	0/2	0	0/2			2.000	2.200	
AROCLOR-1016	UG/KG	0/2	0	0/2			38.000	42.000	
AROCLOR-1221	UG/KG	0/2	0	0/2			77.000	85.000	
AROCLOR-1232	UG/KG	0/2	0	0/2			38.000	42.000	
AROCLOR-1242	UG/KG	0/2	0	0/2			38.000	42.000	
AROCLOR-1248	UG/KG	0/2	0	0/2			38.000	42.000	
AROCLOR-1254	UG/KG	0/2	0	0/2			38.000	42.000	
AROCLOR-1260	UG/KG	0/2	0	0/2			38.000	42.000	
BETA-BHC	UG/KG	0/2	0	0/2			2.000	2.200	
DELTA-BHC	UG/KG	0/2	0	0/2			2.000	2.200	
DIELDRIN	UG/KG	0/2	0	0/2			3.800	4.200	
ENDOSULFAN II	UG/KG	0/2	0	0/2			3.800	4.200	
ENDOSULFAN SULFATE	UG/KG	0/2	0	0/2			3.800	4.200	
ENDOSULFAN-I	UG/KG	0/2	0	0/2			2.000	2.200	
ENDRIN	UG/KG	0/2	0	0/2			3.800	4.200	
ENDRIN ALDEHYDE	UG/KG	0/2	0	0/2			3.800	4.200	
ENDRIN KETONE	UG/KG	0/2	0	0/2			3.800	4.200	

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	0	0/2			2.000	2.200	
GAMMA-CHLORDANE	UG/KG	0/2	0	0/2			2.000	2.200	
HEPTACHLOR	UG/KG	0/2	0	0/2			2.000	2.200	
HEPTACHLOR EPOXIDE	UG/KG	0/2	0	0/2			2.000	2.200	
METHOXYCHLOR	UG/KG	0/2	0	0/2			20.000	22.000	
TOXAPHENE	UG/KG	0/2	0	0/2			200.000	220.000	

000295

05/27/94

AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/7	0	0/7			17.000	85.000	
4,4'-DDE	UG/KG	0/7	0	0/7			17.000	85.000	
4,4'-DDT	UG/KG	0/7	0	0/7			17.000	85.000	
ALDRIN	UG/KG	0/7	0	0/7			8.300	42.000	
ALPHA-BHC	UG/KG	0/7	0	0/7			8.300	42.000	
ALPHA-CHLORDANE	UG/KG	0/7	0	0/7			83.000	420.000	
AROCLOR-1016	UG/KG	0/7	0	0/7			83.000	420.000	
AROCLOR-1221	UG/KG	0/7	0	0/7			83.000	420.000	
AROCLOR-1232	UG/KG	0/7	0	0/7			83.000	420.000	
AROCLOR-1242	UG/KG	0/7	0	0/7			83.000	420.000	
AROCLOR-1248	UG/KG	0/7	0	0/7			83.000	420.000	
AROCLOR-1254	UG/KG	1/7	0	1/7	40.000-40.000	40.00	170.000	850.000	
AROCLOR-1260	UG/KG	0/7	0	0/7			170.000	850.000	
BETA-BHC	UG/KG	0/7	0	0/7			8.100	42.000	
DELTA-BHC	UG/KG	0/7	0	0/7			8.300	42.000	
DIELDRIN	UG/KG	0/7	0	0/7			17.000	85.000	
ENDOSULFAN II	UG/KG	0/7	0	0/7			17.000	85.000	
ENDOSULFAN SULFATE	UG/KG	0/7	0	0/7			17.000	85.000	
ENDOSULFAN-I	UG/KG	0/7	0	0/7			8.300	42.000	
ENDRIN	UG/KG	0/7	0	0/7			17.000	85.000	
ENDRIN KETONE	UG/KG	0/7	0	0/7			17.000	85.000	
GAMMA-BHC (LINDANE)	UG/KG	0/7	0	0/7			8.300	42.000	

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000296

000296

AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 3 - 5 FEET									
GAMMA-CHLORDANE	UG/KG	0/7	0	0/7			83.000	420.000	
HEPTACHLOR	UG/KG	0/7	0	0/7			8.300	42.000	
HEPTACHLOR EPOXIDE	UG/KG	0/7	0	0/7			8.300	42.000	
METHOXYCHLOR	UG/KG	0/7	0	0/7			83.000	420.000	
TOXAPHENE	UG/KG	0/7	0	0/7			170.000	850.000	

000297

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AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/2	0	0/2			4.100	4.200	
4,4'-DDE	UG/KG	0/2	0	0/2			4.100	4.200	
4,4'-DDT	UG/KG	0/2	0	0/2			4.100	4.200	
ALDRIN	UG/KG	0/2	0	0/2			2.100	2.200	
ALPHA-BHC	UG/KG	0/2	0	0/2			2.100	2.200	
ALPHA-CHLORDANE	UG/KG	0/2	0	0/2			2.100	2.200	
AROCLOR-1016	UG/KG	0/2	0	0/2			41.000	42.000	
AROCLOR-1221	UG/KG	0/2	0	0/2			84.000	85.000	
AROCLOR-1232	UG/KG	0/2	0	0/2			41.000	42.000	
AROCLOR-1242	UG/KG	0/2	0	0/2			41.000	42.000	
AROCLOR-1248	UG/KG	0/2	0	0/2			41.000	42.000	
AROCLOR-1254	UG/KG	0/2	0	0/2			41.000	42.000	
AROCLOR-1260	UG/KG	0/2	0	0/2			41.000	42.000	
BETA-BHC	UG/KG	0/2	0	0/2			2.100	2.200	
DELTA-BHC	UG/KG	0/2	0	0/2			2.100	2.200	
DIELDRIN	UG/KG	0/2	0	0/2			4.100	4.200	
ENDOSULFAN II	UG/KG	0/2	0	0/2			4.100	4.200	
ENDOSULFAN SULFATE	UG/KG	0/2	0	0/2			4.100	4.200	
ENDOSULFAN-I	UG/KG	0/2	0	0/2			2.100	2.200	
ENDRIN	UG/KG	0/2	0	0/2			4.100	4.200	
ENDRIN ALDEHYDE	UG/KG	0/2	0	0/2			4.100	4.200	
ENDRIN KETONE	UG/KG	0/2	0	0/2			4.100	4.200	

000298

5699

AREA: Plant 6 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	0	0/2			2.100	2.200	
GAMMA-CHLORDANE	UG/KG	0/2	0	0/2			2.100	2.200	
HEPTACHLOR	UG/KG	0/2	0	0/2			2.100	2.200	
HEPTACHLOR EPOXIDE	UG/KG	0/2	0	0/2			2.100	2.200	
METHOXYCHLOR	UG/KG	0/2	0	0/2			21.000	22.000	
TOXAPHENE	UG/KG	0/2	0	0/2			210.000	220.000	

000299

AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
HERBICIDES DEPTH: 0 - .5 FEET									
2,4,5-TP (SILVEX)	UG/KG	0/18	0	0/18			3.600	5.000	
2,4-D	UG/KG	0/18	0	0/18			5.000	30.000	

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AREA: Plant 6 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 0 - .5 FEET									
NITRATE, AS NITROGEN	MG/KG	1/1	0	1/1	435.000-435.000	435.00			

000301

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D.2.5 PLANT 8 AREA

The Plant 8 area is located in the southwestern quadrant of the former production area (Figure D.2-8). It is bordered to the north by the Plant 2/3 area, to the south by the pilot plant and laboratory areas, to the east by the Plant 4/5/7 area, and to the west by the fenced boundary of the production area. The Plant 8 area consists of the following facilities:

- Recovery plant (8A)
- Plant 8 maintenance building (8B)
- Rotary kiln/drum reconditioning (8C)
- Railroad filter building (8D)
- Drum conveyor shelter (8E)
- Old drum washer (8F)
- Plant 8 warehouse (80)
- Plant 8 east drum storage pad (74C)
- Plant 8 west drum storage pad (74D)
- Plant 8 north pad (74R)
- Old metal dissolver pad (74O)

Section 1.3 describes this area and its associated processes. In the area encompassing Plant 8, several above-ground storage tanks and sumps represent possible sources of soil contamination. The area is distinguished by acid-based chemical processing operations resulting in the handling of large quantities of uranium in soluble form. The processing and storage of thorium materials is also associated with Plant 8. Inorganic chemicals, such as lime and sodium chloride (NaCl), are typically used in the water and wastewater treatment operations, and various chemicals, principally nitric acid, hydrofluoric acid, and sodium hydroxide, are stored in above-ground tanks within this area. Table D-1 summarizes parameters known to be present or used in the Plant 8 area.

A number of RCRA hazardous waste management units (HWMUs) are located within the Plant 8 area. In the recovery plant alone, there are three HWMUs: the box furnace, the oxidation furnace, and the primary calciner. The Plant 8 east and west drum storage pads are also RCRA HWMUs.

Soil sampling in the Plant 8 area has been performed in phases. The major sampling program was performed in 1989 and 1990 under the site-wide RI/FS program, when 30 soil borings were drilled and sampled. A number of these soil borings were installed through the floor of the recovery plant. A program consisting of one surface soil sample (PA-SS-13) and one boring (11095) was completed as part of the 1993 investigation to analyze for inorganic and organic constituents.

000302

Surface Soil

Surface soil sampling in the Plant 8 area was widely dispersed with an emphasis on the recovery plant area. Surface soil sample locations are shown in Figure D.2-8. The summary of analytical results is provided in Table D.2-5, which presents the distribution of constituents with respect to the 95th percentile background values (background) for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Within the surface soil in the Plant 8 area, the only radionuclides to exhibit continuous significant vertical contamination to 1.5 feet were the uranium isotopes and total uranium. Total and isotopic uranium were present at levels significantly exceeding background throughout the area. The maximum total uranium concentration in surface soil was 541 mg/kg at 0 to 0.5 feet, located near the Plant 8 north pad. Maximum thorium-230, -232, and -228; total thorium; and radium-226 and -228 levels were present throughout the area in the top 6 inches of soil and decreased with depth within the surface soil interval. Elevated activities of strontium-90 and technetium-99 were also present within the 0- to 0.5-foot depth interval; however, no background level of technetium-99 was recorded.

The only inorganic analytes consistently present in the Plant 8 area at significantly elevated concentrations (at least two times background) within the top 1.5 feet of soil were beryllium, cadmium, calcium, copper, magnesium, and sodium. Other analytes that showed slightly elevated concentrations within the surface soil were barium, chromium, cobalt, nickel, and potassium. Molybdenum and silver were detected in the surface soil, but no background levels were recorded. The highest levels of inorganics were typically found near the old metal dissolver pad.

The only volatile organic compounds detected in the surface soil in this area were 4-methyl-2-pentanone, tetrachloroethene, and toluene, all of which were restricted to the top 6 inches of soil.

A very limited number of semivolatile compounds were detected in the Plant 8 area. These include fluoranthene, pyrene, bis(2-ethylhexyl)phthalate, and di-n-butyl phthalate, of which only di-n-butyl phthalate was consistently detected within the top 1.5 feet of soil.

No pesticides or PCBs were detected in the Plant 8 area surface soil samples.

Subsurface Soil

Subsurface soil sampling locations in the Plant 8 area typically coincide with the general locations of the surface soil samples shown in Figure D.2-8. Table D.2-5 presents the distribution of constituents with respect to the 95th percentile background values (background) for each sample depth interval.

The levels of uranium isotopes and total uranium were consistently elevated from 1.5 to 20 feet in the Plant 8 area. Maximum concentrations for total uranium throughout the area ranged from 136 mg/kg to 386 mg/kg. Elevated levels of thorium-228, -230, and -232; total thorium; strontium-90; cesium-137; and technetium-99 were present in many of the depth intervals with inconsistent occurrences. No background levels were recorded for technetium-99 and cesium-137 in the subsurface. There was one positive detection of technetium-99 (205 pCi/g) in the 5.0- to 10.0-foot depth interval.

The only inorganic analytes that were highly elevated within the subsurface soil zone in the Plant 8 area were beryllium and cadmium. No inorganic samples were collected below the 5.0- to 10.0-foot depth interval.

No volatile organics, semivolatile organics, pesticides, or PCBs were detected in subsurface soil within the Plant 8 area.

Conclusion

The majority of contamination present within the soil of the Plant 8 area is associated with uranium handling processes formerly conducted in this area. Uranium isotopes, technetium-99, and strontium-90 are the most predominant soil contaminants in the Plant 8 area. Highly elevated concentrations of these constituents are present from the ground surface to the 20.0-foot depth.

As shown in Table D.2-5, the majority of the inorganic contamination in the Plant 8 area appears to be confined near the old metal dissolver pad and to the top 1.5 feet of soil, with the exception of beryllium and cadmium, which were detected at levels greater than twice background within the 5.0 to 10.0 foot interval.

A limited amount of organic contamination is present within the soil of the Plant 8 area, primarily within the top 6 inches of soil. Tetrachloroethene and toluene, two of the volatiles detected, were both used within the recovery plant as part of the oil centrifuge process.

As previously stated, large quantities of uranium materials, mainly in the soluble form, were handled in the Plant 8 area, especially inside the recovery plant. The presence of radionuclide contamination in the surface soil and to depths of 20 feet may be attributed to spills or leaking process equipment/piping inside the building and leaking drums in the storage pad areas, especially near the Plant 8 north pad. Airborne deposition from adjacent production areas is attributable to contamination in the surface soil surrounding the building .

TABLE D.2-5
PLANT 8 AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.26	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	18	■	■	■	◉	●	■	●	◉	◉	◉	-	-	-	◉	X	-	○
0.5 - 1	0																	
1 - 1.5	4	■	■	■	○	○	■	○	○	-	●							
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	6	■	■	■	◉	-	■	○	○	-	○							
3 - 5	3	■	■	■	○	-	■	○	○	-	○	-	-	-	■	X	-	X
5 - 10	5	■	■	■	●	○	■	●	◉	-	●	-	-	-	◉	X	-	X
10 - 15	4	■	■	■	○	○	■	○	◉	-	○	-	-	-	-	-	-	-
15 - 20	2	■	■	■			■	●	○		●	-	-	-	●	X		

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	69.6
0 - 0.5	4	○	X	○	●	◉	◉	■	●	●	◉	○	○	○	■	○	-	X	●	●	○	○	X	■	-	○	○
0.5 - 1	0																										
1 - 1.5	2	○	-	○	●	■	-	■	○	-	○	-	○	○	■	○	-	-	●	●	-	○		◉		○	○
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	1	○	-	○	○	◉	-	○	○	-	-		○	○	●	○	-	-	-	○	-	○	-	○	-	○	○
3 - 5	0																										
5 - 10	2	○	-	○	○	◉	◉	○	○	●	●		○	●	○	○	-	-	○	○	X	○	-	○	-	○	○
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

◉ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-5
(Continued)

	VOLATILES (ug/kg)								SEMIVOLATILES (ug/kg)																
Depth Interval, Feet	Number of Samples	4-Methyl-2-pentanone	Tetrachloroethene	Toluene					Number of Samples	Bis(2-ethylhexyl)phthalate	Di-n-butyl phthalate	Fluoranthene	Pyrene												
Surface Soil:																									
0 - 0.5	5	X	X	X					3	-	X	X	X												
0.5 - 1	0								0																
1 - 1.5	2	-	-	-					2	X	X	-	-												
Subsurface Soil:																									
1.5 - 3	1	-	-	-					1	-	-	-	-												
3 - 5	0	-	-	-					0																
5 - 10	2								2	-	-	-	-												
10 - 15	0								0																
15 - 20	0								0																

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

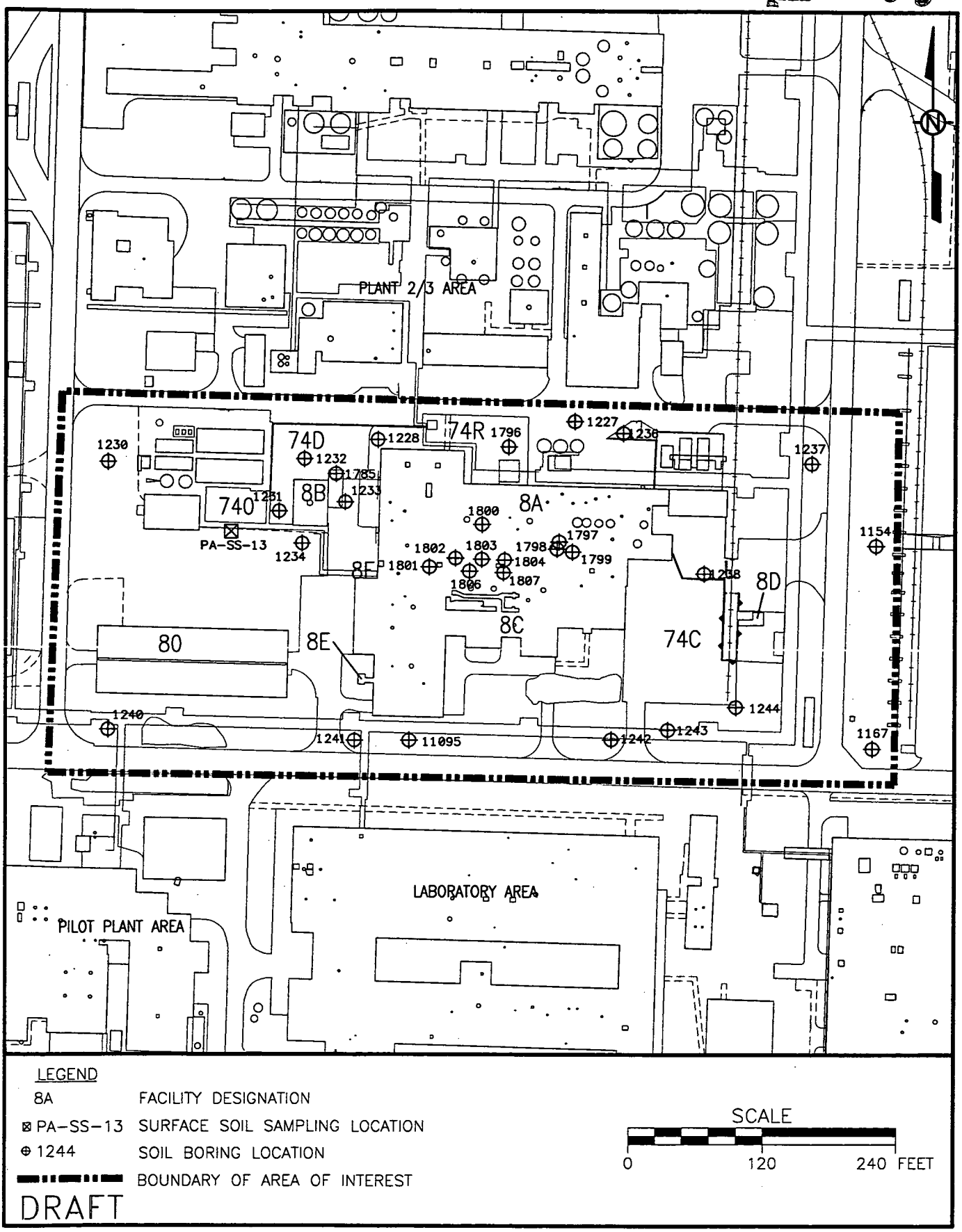

FIGURE D.2-8. PLANT 8 AREA

Plant 8 Area

Summary Soil Statistics

AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	18/18	18	15/18	0.800-227.000	55.42			1.24
URANIUM, TOTAL	MG/KG	23/25	18	21/25	2.400-541.000	120.13	3.000	11.000	3.73
URANIUM-234	PCI/G	18/18	18	15/18	0.776-228.000	58.33			1.24
THORIUM-230	PCI/G	16/17	17	7/17	0.600-7.080	2.34	0.600	0.600	1.97
RADIUM-226	PCI/G	14/16	16	1/16	0.447-1.940	0.96	0.250	0.300	1.42
URANIUM-235/236	PCI/G	13/18	18	13/18	0.610-26.100	8.19	0.100	0.600	0.156
THORIUM-232	PCI/G	12/17	17	2/17	0.200-2.140	1.07	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	16/23	15	2/23	1.824-19.517	8.29	3.000	23.000	12.4
RADIUM-228	PCI/G	14/16	16	2/16	0.610-4.610	1.15	0.500	0.500	1.25
THORIUM-228	PCI/G	13/16	16	4/16	0.300-3.240	1.27	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/14	14	0/14			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/16	16	0/16			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/16	16	0/16			0.600	0.600	NA
STRONTIUM-90	PCI/G	5/17	17	5/17	0.840-2.040	1.22	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	6/15	15	6/15	1.170-37.400	8.47	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/14	14	0/14			1.000	1.460	NA
CESIUM-137	PCI/G	2/14	14	0/14	0.280-0.480	0.38	0.200	0.200	0.711

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000310

5999

AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	2/2	2	1/2	0.500-12.000	6.25			1.24
URANIUM, TOTAL	MG/KG	10/10	10	6/10	2.000-255.000	48.59			3.73
URANIUM-234	PCI/G	2/2	2	1/2	0.600-13.800	7.20			1.24
THORIUM-230	PCI/G	3/3	3	0/3	0.700-1.450	0.98			1.97
RADIUM-226	PCI/G	1/2	2	0/2	0.800-0.800	0.80	0.250	0.250	1.42
URANIUM-235/236	PCI/G	1/2	2	1/2	1.000-1.000	1.00	0.100	0.100	0.156
THORIUM-232	PCI/G	3/3	3	0/3	0.300-0.800	0.57			1.36
THORIUM, TOTAL	MG/KG	11/11	9	0/11	2.736-9.790	6.61			12.4
RADIUM-228	PCI/G	0/2	2	0/2			0.500	0.500	1.25
THORIUM-228	PCI/G	3/3	3	1/3	0.300-1.550	0.85			1.43

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	2/2	2	1/2	0.300-37.600	18.95			1.12
URANIUM, TOTAL	MG/KG	16/24	12	12/24	1.700-349.000	38.83	11.000	11.000	3.69
URANIUM-234	PCI/G	2/2	2	1/2	0.500-38.500	19.50			1.04
THORIUM-230	PCI/G	1/1	1	1/1	3.860-3.860	3.86			1.91
RADIUM-226	PCI/G	0/1	1	0/1			0.250	0.250	1.47
URANIUM-235/236	PCI/G	1/2	2	1/2	4.590-4.590	4.59	0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.897-0.897	0.90			1.26
THORIUM, TOTAL	MG/KG	10/22	10	0/22	4.930-8.400	6.58	23.000	23.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	1.160-1.160	1.16			1.38

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	3/3	3	3/3	2.070-73.700	29.72			1.12
URANIUM, TOTAL	MG/KG	12/12	7	11/12	3.170-158.000	33.50			3.69
URANIUM-234	PCI/G	3/3	3	3/3	2.070-74.800	30.59			1.04
THORIUM-230	PCI/G	2/3	3	0/3	1.400-1.840	1.62	0.600	0.600	1.91
RADIUM-226	PCI/G	0/1	1	0/1			0.300	0.300	1.47
URANIUM-235/236	PCI/G	2/3	3	2/3	0.932-9.500	5.22	0.600	0.600	0.150
THORIUM-232	PCI/G	2/3	3	0/3	0.867-1.050	0.96	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	8/11	7	0/11	3.120-9.790	7.52	23.000	23.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	2/3	3	0/3	1.220-1.340	1.28	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	2.400-2.400	2.40			.436
TECHNETIUM-99	PCI/G	1/1	1	1/1	1.440-1.440	1.44			NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	1/1	1	1/1	1.310-1.310	1.31			NA

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	5/5	5	5/5	1.170-125.000	26.44			1.12
URANIUM, TOTAL	MG/KG	13/21	6	12/21	3.500-386.000	47.28	11.000	11.000	3.69
URANIUM-234	PCI/G	5/5	5	4/5	1.000-133.000	27.94			1.04
THORIUM-230	PCI/G	5/5	5	1/5	0.600-2.440	1.21			1.91
RADIUM-226	PCI/G	3/3	3	0/3	0.400-0.900	0.60			1.47
URANIUM-235/236	PCI/G	1/5	5	1/5	12.100-12.100	12.10	0.100	0.600	0.150
THORIUM-232	PCI/G	5/5	5	1/5	0.500-1.590	0.86			1.26
THORIUM, TOTAL	MG/KG	8/21	4	2/21	4.560-23.000	9.78	23.000	23.000	11.1
RADIUM-228	PCI/G	0/3	3	0/3			0.500	0.560	1.31
THORIUM-228	PCI/G	5/5	5	2/5	0.600-1.710	1.10			1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	1.120-1.120	1.12			.436
TECHNETIUM-99	PCI/G	1/1	1	1/1	205.000-205.000	205.00			NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	1/1	1	1/1	2.940-2.940	2.94			NA

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	3/3	3	1/3	0.644-31.900	11.22			1.12
URANIUM, TOTAL	MG/KG	11/20	5	9/20	1.980-328.000	55.58	11.000	11.000	3.69
URANIUM-234	PCI/G	3/3	3	2/3	0.820-35.700	12.65			1.04
THORIUM-230	PCI/G	2/3	3	0/3	0.806-1.260	1.03	0.600	0.600	1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.630-0.630	0.63			1.47
URANIUM-235/236	PCI/G	1/3	3	1/3	3.760-3.760	3.76	0.600	0.600	0.150
THORIUM-232	PCI/G	1/3	3	0/3	0.769-0.769	0.77	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	6/19	4	1/19	3.640-24.000	8.28	23.000	23.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.510	0.510	1.31
THORIUM-228	PCI/G	2/3	3	0/3	0.993-1.170	1.08	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.350	1.350	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	2/2	2	2/2	1.600-43.100	22.35			1.12
URANIUM, TOTAL	MG/KG	7/7	3	6/7	3.200-136.000	44.50			3.69
URANIUM-234	PCI/G	2/2	2	2/2	1.300-48.400	24.85			1.04
THORIUM-230	PCI/G	2/2	2	1/2	1.900-34.200	18.05			1.91
URANIUM-235/236	PCI/G	1/2	2	1/2	3.730-3.730	3.73	0.600	0.600	0.150
THORIUM-232	PCI/G	2/2	2	1/2	1.180-2.080	1.63			1.26
THORIUM, TOTAL	MG/KG	3/6	4	1/6	6.790-18.800	12.06	3.350	23.000	11.1
THORIUM-228	PCI/G	2/2	2	1/2	1.150-1.460	1.31			1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	0.690-0.690	0.69			.436
TECHNETIUM-99	PCI/G	1/1	1	1/1	1.650-1.650	1.65			NA

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	5/5	5	0/5	1550.000-10300.000	6786.00			11900
ANTIMONY	MG/KG	1/2	2	1/2	21.200-21.200	21.20	2.300	2.500	NA
ARSENIC	MG/KG	5/5	5	0/5	0.770-7.200	4.11			8.20
BARIUM	MG/KG	5/5	5	1/5	11.400-115.000	61.48			95.7
BERYLLIUM	MG/KG	4/5	5	4/5	0.610-2.700	1.24	0.900	0.900	0.6
CADMIUM	MG/KG	4/5	5	4/5	1.400-3.800	2.60	1.100	1.100	0.870
CALCIUM	MG/KG	5/5	5	5/5	36500.000-128000.000	91000.00			4340
CHROMIUM	MG/KG	5/5	5	3/5	3.600-30.000	17.88			15.5
COBALT	MG/KG	4/5	5	2/5	9.000-15.800	12.80	3.600	3.600	14.2
COPPER	MG/KG	5/5	5	3/5	5.000-34.800	18.04			14.1
CYANIDE	MG/KG	1/4	4	0/4	0.150-0.150	0.15	0.120	0.280	0.270
IRON	MG/KG	5/5	5	0/5	5360.000-21200.000	14692.00			21700
LEAD	MG/KG	5/5	5	0/5	3.500-17.000	10.36			26.4
MAGNESIUM	MG/KG	5/5	5	5/5	11700.000-44600.000	26220.00			2780
MANGANESE	MG/KG	5/5	5	0/5	226.000-792.000	483.80			1350
MERCURY	MG/KG	0/5	5	0/5			0.050	0.120	0.3
MOLYBDENUM	MG/KG	3/5	5	3/5	10.000-13.100	11.97	3.600	3.800	NA
NICKEL	MG/KG	5/5	5	3/5	5.400-24.600	19.26			20.9
POTASSIUM	MG/KG	5/5	5	1/5	281.000-1260.000	859.40			1230
SELENIUM	MG/KG	1/5	5	0/5	0.370-0.370	0.37	0.310	0.450	0.72
SILICON	MG/KG	1/1	1	0/1	119.000-119.000	119.00			1800
SILVER	MG/KG	3/5	5	3/5	8.200-15.200	11.40	0.210	0.220	NA

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	4/5	5	4/5	125.000-707.000	298.25	137.000	137.000	51.1
THALLIUM	MG/KG	0/5	5	0/5			0.210	1.600	0.58
VANADIUM	MG/KG	5/5	5	0/5	8.500-27.800	20.54			30.4
ZINC	MG/KG	4/5	5	0/5	25.800-45.500	36.08	54.600	54.600	59.6

000318

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	1430.000-8370.000	4900.00			11900
ANTIMONY	MG/KG	0/1	1	0/1			2.300	2.600	NA
ARSENIC	MG/KG	1/2	2	0/2	6.400-6.400	6.40	0.420	0.420	8.20
BARIUM	MG/KG	2/2	2	1/2	18.700-97.400	58.05			95.7
BERYLLIUM	MG/KG	1/2	2	1/2	3.500-3.500	3.50	0.930	0.930	0.6
CADMIUM	MG/KG	0/2	2	0/2			1.000	1.200	0.870
CALCIUM	MG/KG	2/2	2	2/2	126000.000-137000.000	131500.00			4340
CHROMIUM	MG/KG	2/2	2	0/2	3.600-11.200	7.40			15.5
COBALT	MG/KG	0/2	2	0/2			3.600	9.100	14.2
COPPER	MG/KG	1/2	2	0/2	13.400-13.400	13.40	1.900	1.900	14.1
CYANIDE	MG/KG	0/1	1	0/1			0.260	0.290	0.270
IRON	MG/KG	2/2	2	0/2	4750.000-17700.000	11225.00			21700
LEAD	MG/KG	2/2	2	0/2	3.700-10.900	7.30			26.4
MAGNESIUM	MG/KG	2/2	2	2/2	29100.000-38500.000	33800.00			2780
MANGANESE	MG/KG	2/2	2	0/2	387.000-571.000	479.00			1350
MERCURY	MG/KG	0/2	2	0/2			0.050	0.060	0.3
MOLYBDENUM	MG/KG	0/2	2	0/2			3.600	3.900	NA
NICKEL	MG/KG	1/2	2	1/2	21.000-21.000	21.00	3.800	3.800	20.9
POTASSIUM	MG/KG	2/2	2	1/2	222.000-1270.000	746.00			1230
SELENIUM	MG/KG	0/2	2	0/2			1.000	2.300	0.72
SILICON	MG/KG	1/1	1	0/1	121.000-121.000	121.00			1800
SILVER	MG/KG	0/2	2	0/2			0.210	0.230	NA

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	2/2	2	2/2	123.000-212.000	167.50			51.1
THALLIUM	MG/KG	0/2	2	0/2			0.210	0.230	0.58
VANADIUM	MG/KG	2/2	2	0/2	11.100-19.400	15.25			30.4
ZINC	MG/KG	1/2	2	0/2	18.500-18.500	18.50	66.700	66.700	59.6

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	1360.000-1360.000	1360.00			16100
ANTIMONY	MG/KG	0/1	1	0/1			2.300	2.300	NA
ARSENIC	MG/KG	1/1	1	0/1	1.400-1.400	1.40			9.57
BARIUM	MG/KG	1/1	1	0/1	12.200-12.200	12.20			119
BERYLLIUM	MG/KG	1/1	1	1/1	2.200-2.200	2.20			0.620
CADMIUM	MG/KG	0/1	1	0/1			1.000	1.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	77800.000-77800.000	77800.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	5.000-5.000	5.00			20.7
COBALT	MG/KG	0/1	1	0/1			3.600	3.600	15.7
COPPER	MG/KG	0/1	1	0/1			1.900	1.900	20.0
IRON	MG/KG	1/1	1	0/1	4120.000-4120.000	4120.00			30700
LEAD	MG/KG	1/1	1	0/1	2.600-2.600	2.60			15.6
MAGNESIUM	MG/KG	1/1	1	1/1	63100.000-63100.000	63100.00			42600
MANGANESE	MG/KG	1/1	1	0/1	158.000-158.000	158.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.050	0.050	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			3.600	3.600	2.7
NICKEL	MG/KG	0/1	1	0/1			3.800	3.800	34.3
POTASSIUM	MG/KG	1/1	1	0/1	214.000-214.000	214.00			1980
SELENIUM	MG/KG	0/1	1	0/1			1.400	1.400	NA
SILICON	MG/KG	1/1	1	0/1	158.000-158.000	158.00			1590
SILVER	MG/KG	0/1	1	0/1			0.210	0.210	NA
SODIUM	MG/KG	1/1	1	0/1	138.000-138.000	138.00			285

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.210	0.210	0.49
VANADIUM	MG/KG	1/1	1	0/1	6.700-6.700	6.70			37.8
ZINC	MG/KG	1/1	1	0/1	17.400-17.400	17.40			82.0

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	10300.000-10800.000	10550.00			16100
ANTIMONY	MG/KG	0/2	2	0/2			2.600	2.700	NA
ARSENIC	MG/KG	2/2	2	0/2	1.200-3.800	2.50			9.57
BARIUM	MG/KG	2/2	2	0/2	95.500-104.000	99.75			119
BERYLLIUM	MG/KG	2/2	2	2/2	2.200-2.700	2.45			0.620
CADMIUM	MG/KG	2/2	2	2/2	1.600-1.900	1.75			0.910
CALCIUM	MG/KG	2/2	2	0/2	99600.000-101000.000	100300.00			150000
CHROMIUM	MG/KG	2/2	2	0/2	17.100-18.200	17.65			20.7
COBALT	MG/KG	2/2	2	1/2	8.000-16.600	12.30			15.7
COPPER	MG/KG	2/2	2	1/2	15.500-21.000	18.25			20.0
IRON	MG/KG	2/2	2	0/2	19500.000-24900.000	22200.00			30700
LEAD	MG/KG	2/2	2	1/2	15.000-17.200	16.10			15.6
MAGNESIUM	MG/KG	2/2	2	0/2	23300.000-31100.000	27200.00			42600
MANGANESE	MG/KG	2/2	2	0/2	526.000-571.000	548.50			1300
MERCURY	MG/KG	0/2	2	0/2			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/2	2	0/2			4.000	4.100	2.7
NICKEL	MG/KG	2/2	2	0/2	16.900-27.300	22.10			34.3
POTASSIUM	MG/KG	2/2	2	0/2	1570.000-1750.000	1660.00			1980
SELENIUM	MG/KG	1/2	2	1/2	0.810-0.810	0.81	1.200	1.200	NA
SILICON	MG/KG	2/2	2	0/2	86.600-213.000	149.80			1590
SILVER	MG/KG	0/2	2	0/2			0.240	0.240	NA
SODIUM	MG/KG	2/2	2	0/2	155.000-223.000	189.00			285

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
THALLIUM	MG/KG	0/2	2	0/2			0.240	0.390	0.49
VANADIUM	MG/KG	2/2	2	0/2	18.800-21.800	20.30			37.8
ZINC	MG/KG	2/2	2	0/2	49.300-64.200	56.75			82.0

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/6	6	0/6			5.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/6	6	0/6			5.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/6	6	0/6			5.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/6	6	0/6			5.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/6	6	0/6			5.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/6	6	0/6			5.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/6	6	0/6			5.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/6	6	0/6			5.000	11.000	
2-BUTANONE	UG/KG	0/4	4	0/4			10.000	12.000	
2-HEXANONE	UG/KG	0/4	4	0/4			10.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	1/4	4	1/4	1.000-1.000	1.00	10.000	11.000	
ACETONE	UG/KG	0/5	5	0/5			11.000	27.000	
BENZENE	UG/KG	0/6	6	0/6			5.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/6	6	0/6			5.000	11.000	
BROMOFORM	UG/KG	0/6	6	0/6			5.000	11.000	
BROMOMETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/6	6	0/6			5.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/6	6	0/6			5.000	11.000	
CHLOROBENZENE	UG/KG	0/6	6	0/6			5.000	11.000	
CHLOROETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
CHLOROFORM	UG/KG	0/6	6	0/6			5.000	11.000	
CHLOROMETHANE	UG/KG	0/6	6	0/6			10.000	12.000	

AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			5.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/6	6	0/6			5.000	11.000	
ETHYLBENZENE	UG/KG	0/6	6	0/6			5.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/6	6	0/6			5.000	21.000	
STYRENE	UG/KG	0/6	6	0/6			5.000	11.000	
TETRACHLOROETHENE	UG/KG	1/6	6	1/6	2.000-2.000	2.00	5.000	11.000	
TOLUENE	UG/KG	1/6	6	1/6	1.000-1.000	1.00	6.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			5.000	11.000	
TRICHLOROETHENE	UG/KG	0/6	6	0/6			5.000	11.000	
VINYL ACETATE	UG/KG	0/6	6	0/6			10.000	12.000	
VINYL CHLORIDE	UG/KG	0/6	6	0/6			10.000	12.000	
XYLENES, TOTAL	UG/KG	0/6	6	0/6			5.000	11.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			10.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			10.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			10.000	12.000	
ACETONE	UG/KG	0/2	2	0/2			10.000	12.000	
BENZENE	UG/KG	0/2	2	0/2			10.000	19.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
BROMOFORM	UG/KG	0/2	2	0/2			10.000	12.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			10.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			10.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			10.000	12.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			10.000	12.000	
STYRENE	UG/KG	0/2	2	0/2			10.000	12.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			10.000	12.000	
TOLUENE	UG/KG	0/2	2	0/2			10.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			10.000	12.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			10.000	12.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			10.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			10.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			10.000	12.000	

AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			10.000	10.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			10.000	10.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			10.000	10.000	
ACETONE	UG/KG	0/1	1	0/1			10.000	10.000	
BENZENE	UG/KG	0/1	1	0/1			10.000	10.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
BROMOFORM	UG/KG	0/1	1	0/1			10.000	10.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			10.000	10.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			10.000	10.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			10.000	10.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
CHLOROFORM	UG/KG	0/1	1	0/1			10.000	10.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			10.000	10.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			10.000	10.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			10.000	10.000	
STYRENE	UG/KG	0/1	1	0/1			10.000	10.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			10.000	10.000	
TOLUENE	UG/KG	0/1	1	0/1			10.000	10.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			10.000	10.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			10.000	10.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			10.000	10.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			10.000	10.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			10.000	10.000	

000330

AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			12.000	12.000	
ACETONE	UG/KG	0/2	2	0/2			12.000	12.000	
BENZENE	UG/KG	0/2	2	0/2			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
BROMOFORM	UG/KG	0/2	2	0/2			12.000	12.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			12.000	12.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			12.000	12.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			12.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			12.000	12.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			12.000	12.000	
STYRENE	UG/KG	0/2	2	0/2			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			12.000	12.000	
TOLUENE	UG/KG	0/2	2	0/2			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			12.000	12.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			12.000	12.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			890.000	2100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			360.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			360.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			360.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			890.000	2100.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			360.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			360.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			360.000	410.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			360.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			360.000	410.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			360.000	410.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			890.000	2100.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			360.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	4	0/4			360.000	820.000	
3-NITROANILINE	NONE	0/3	3	0/3			890.000	1800.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			890.000	2100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			360.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			360.000	410.000	

AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			360.000	410.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			360.000	410.000	
4-NITROANILINE	UG/KG	0/4	4	0/4			890.000	2100.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			890.000	2100.000	
ACENAPHTHENE	UG/KG	0/4	4	0/4			360.000	410.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			360.000	410.000	
ANTHRACENE	UG/KG	0/4	4	0/4			360.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	4	0/4			360.000	410.000	
BENZO(A)PYRENE	UG/KG	0/4	4	0/4			360.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	4	0/4			360.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	4	0/4			360.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	4	0/4			360.000	410.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			890.000	2100.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			360.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			360.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			360.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			360.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/4	4	0/4			360.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			360.000	410.000	
CARBAZOLE	UG/KG	0/2	2	0/2			360.000	370.000	
CHRYSENE	UG/KG	0/4	4	0/4			360.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/4	4	1/4	43.000-43.000	43.00	360.000	370.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			360.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	4	0/4			360.000	410.000	
DIBENZOFURAN	UG/KG	0/4	4	0/4			360.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			360.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			360.000	410.000	
FLUORANTHENE	UG/KG	1/4	4	1/4	56.000-56.000	56.00	360.000	410.000	
FLUORENE	UG/KG	0/4	4	0/4			360.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			360.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			360.000	410.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			360.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	4	0/4			360.000	410.000	
ISOPHORONE	UG/KG	0/4	4	0/4			360.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			360.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			360.000	410.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			360.000	410.000	
NITROBENZENE	UG/KG	0/4	4	0/4			360.000	410.000	
P-CHLOROANILINE	UG/KG	0/4	4	0/4			360.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			890.000	2100.000	
PHENANTHRENE	UG/KG	0/4	4	0/4			360.000	410.000	
PHENOL	UG/KG	0/4	4	0/4			360.000	410.000	
PYRENE	UG/KG	2/4	4	2/4	39.000-49.000	44.00	360.000	410.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			880.000	970.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			350.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			880.000	970.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			350.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			350.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			350.000	390.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			350.000	390.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	390.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			880.000	970.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			350.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			350.000	390.000	
3-NITROANILINE	NONE	0/1	1	0/1			880.000	970.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			880.000	970.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			350.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	390.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			350.000	390.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	390.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			880.000	970.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			880.000	970.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			350.000	390.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			350.000	390.000	
ANTHRACENE	UG/KG	0/2	2	0/2			350.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			350.000	390.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			350.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			350.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			350.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			350.000	390.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			880.000	970.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			350.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			350.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			350.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			350.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/2	2	1/2	45.000-45.000	45.00	350.000	350.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			350.000	390.000	
CARBAZOLE	UG/KG	0/2	2	0/2			350.000	390.000	
CHRYSENE	UG/KG	0/2	2	0/2			350.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/2	2	1/2	42.000-42.000	42.00	390.000	390.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			350.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			350.000	390.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			350.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	390.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			350.000	390.000	
FLUORENE	UG/KG	0/1	1	0/1			350.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			350.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			350.000	390.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			350.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			350.000	390.000	
ISOPHORONE	UG/KG	0/1	1	0/1			350.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			350.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			350.000	390.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			350.000	390.000	
NITROBENZENE	UG/KG	0/1	1	0/1			350.000	390.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			350.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			880.000	970.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			350.000	390.000	
PHENOL	UG/KG	0/1	1	0/1			350.000	390.000	
PYRENE	UG/KG	0/2	2	0/2			350.000	390.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			880.000	880.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			880.000	880.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			350.000	350.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			350.000	350.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			350.000	350.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			350.000	350.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			880.000	880.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			350.000	350.000	
3-NITROANILINE	NONE	0/1	1	0/1			880.000	880.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			880.000	880.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			350.000	350.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	

AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			350.000	350.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			880.000	880.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			880.000	880.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			350.000	350.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			350.000	350.000	
ANTHRACENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			880.000	880.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			350.000	350.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			350.000	350.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			350.000	350.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			350.000	350.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
CARBAZOLE	UG/KG	0/1	1	0/1			350.000	350.000	
CHRYSENE	UG/KG	0/1	1	0/1			350.000	350.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			350.000	350.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			350.000	350.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			350.000	350.000	
FLUORENE	UG/KG	0/1	1	0/1			350.000	350.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			350.000	350.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			350.000	350.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			350.000	350.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			350.000	350.000	
ISOPHORONE	UG/KG	0/1	1	0/1			350.000	350.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			350.000	350.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			350.000	350.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			350.000	350.000	
NITROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			350.000	350.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			880.000	880.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			350.000	350.000	
PHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
PYRENE	UG/KG	0/1	1	0/1			350.000	350.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			990.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			400.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			400.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			400.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			990.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			400.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			400.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			400.000	400.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			400.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			400.000	400.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			400.000	400.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			990.000	1000.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			400.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			400.000	400.000	
3-NITROANILINE	NONE	0/2	2	0/2			990.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			990.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			400.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			400.000	400.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			400.000	400.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			400.000	400.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			990.000	1000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			990.000	1000.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			400.000	400.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			400.000	400.000	
ANTHRACENE	UG/KG	0/2	2	0/2			400.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			400.000	400.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			400.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			400.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			400.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			400.000	400.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			990.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			400.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			400.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			400.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			400.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/2	2	0/2			400.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	400.000	
CARBAZOLE	UG/KG	0/2	2	0/2			400.000	400.000	
CHRYSENE	UG/KG	0/2	2	0/2			400.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	400.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			400.000	400.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			400.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	400.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			400.000	400.000	
FLUORENE	UG/KG	0/2	2	0/2			400.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			400.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			400.000	400.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			400.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			400.000	400.000	
ISOPHORONE	UG/KG	0/2	2	0/2			400.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			400.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			400.000	400.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			400.000	400.000	
NITROBENZENE	UG/KG	0/2	2	0/2			400.000	400.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			400.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			990.000	1000.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			400.000	400.000	
PHENOL	UG/KG	0/2	2	0/2			400.000	400.000	
PYRENE	UG/KG	0/2	2	0/2			400.000	400.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.500	3.700	
4,4'-DDE	UG/KG	0/2	2	0/2			3.500	3.700	
4,4'-DDT	UG/KG	0/2	2	0/2			3.500	3.700	
ALDRIN	UG/KG	0/2	2	0/2			1.800	1.900	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.800	1.900	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	1.900	
AROCLOR-1016	UG/KG	0/2	2	0/2			35.000	37.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			71.000	75.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			35.000	37.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			35.000	37.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			35.000	37.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			35.000	37.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			35.000	37.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.800	1.900	
DELTA-BHC	UG/KG	0/2	2	0/2			1.800	1.900	
DIELDRIN	UG/KG	0/2	2	0/2			3.500	3.700	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.500	3.700	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.500	3.700	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.800	1.900	
ENDRIN	UG/KG	0/2	2	0/2			3.500	3.700	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.500	3.700	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.500	3.700	

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000345

AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.800	1.900	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	1.900	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.800	1.900	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.800	1.900	
METHOXYCHLOR	UG/KG	0/2	2	0/2			18.000	19.000	
TOXAPHENE	UG/KG	0/2	2	0/2			180.000	190.000	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.500	3.800	
4,4'-DDE	UG/KG	0/2	2	0/2			3.500	3.800	
4,4'-DDT	UG/KG	0/2	2	0/2			3.500	3.800	
ALDRIN	UG/KG	0/2	2	0/2			1.800	2.000	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.800	2.000	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	2.000	
AROCLOR-1016	UG/KG	0/2	2	0/2			35.000	38.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			71.000	78.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			35.000	38.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			35.000	38.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			35.000	38.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			35.000	38.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			35.000	38.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.800	2.000	
DELTA-BHC	UG/KG	0/2	2	0/2			1.800	2.000	
DIELDRIN	UG/KG	0/2	2	0/2			3.500	3.800	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.500	3.800	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.500	3.800	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.800	2.000	
ENDRIN	UG/KG	0/2	2	0/2			3.500	3.800	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.500	3.800	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.500	3.800	

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AREA: Plant 8 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.800	2.000	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	2.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.800	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.800	2.000	
METHOXYCHLOR	UG/KG	0/2	2	0/2			18.000	20.000	
TOXAPHENE	UG/KG	0/2	2	0/2			180.000	200.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.400	3.400	
4,4'-DDE	UG/KG	0/1	1	0/1			3.400	3.400	
4,4'-DDT	UG/KG	0/1	1	0/1			3.400	3.400	
ALDRIN	UG/KG	0/1	1	0/1			1.800	1.800	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.800	1.800	
AROCLOR-1016	UG/KG	0/1	1	0/1			34.000	34.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			70.000	70.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			34.000	34.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			34.000	34.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			34.000	34.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			34.000	34.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			34.000	34.000	
BETA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
DELTA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
DIELDRIN	UG/KG	0/1	1	0/1			3.400	3.400	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.400	3.400	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.400	3.400	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			1.800	1.800	
ENDRIN	UG/KG	0/1	1	0/1			3.400	3.400	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.400	3.400	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.400	3.400	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.800	1.800	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.800	1.800	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.800	1.800	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.800	1.800	
METHOXYCHLOR	UG/KG	0/1	1	0/1			18.000	18.000	
TOXAPHENE	UG/KG	0/1	1	0/1			180.000	180.000	

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AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.900	4.000	
4,4'-DDE	UG/KG	0/2	2	0/2			3.900	4.000	
4,4'-DDT	UG/KG	0/2	2	0/2			3.900	4.000	
ALDRIN	UG/KG	0/2	2	0/2			2.000	2.100	
ALPHA-BHC	UG/KG	0/2	2	0/2			2.000	2.100	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			2.000	2.100	
AROCLOR-1016	UG/KG	0/2	2	0/2			39.000	40.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			80.000	82.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			39.000	40.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			39.000	40.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			39.000	40.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			39.000	40.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			39.000	40.000	
BETA-BHC	UG/KG	0/2	2	0/2			2.000	2.100	
DELTA-BHC	UG/KG	0/2	2	0/2			2.000	2.100	
DIELDRIN	UG/KG	0/2	2	0/2			3.900	4.000	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.900	4.000	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.900	4.000	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			2.000	2.100	
ENDRIN	UG/KG	0/2	2	0/2			3.900	4.000	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.900	4.000	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.900	4.000	

AREA: Plant 8 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			2.000	2.100	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			2.000	2.100	
HEPTACHLOR	UG/KG	0/2	2	0/2			2.000	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			2.000	2.100	
METHOXYCHLOR	UG/KG	0/2	2	0/2			20.000	21.000	
TOXAPHENE	UG/KG	0/2	2	0/2			200.000	210.000	

D.2.6 PLANT 9 AREA

The Plant 9 area is located near the east central portion of the former production area of the FEMP, as shown in Figure D.2-9. The special products plant (9A) encompasses most of the area. This plant was used for enriched uranium casting, Zirnlo decladding, derby cleaning, and various machining and heat treating processes. Several small buildings and pads surround the main plant building. Table D-1 summarizes parameters known to be present or used in the Plant 9 area.

Sampling in the area was performed in phases, beginning in 1987 with the original site-wide RI/FS program. Most sampling programs in this area were performed in 1989 and 1990. A limited sampling and testing program that included boring 11090 completed the investigative work in 1993.

Surface Soil

The majority of the surface sampling locations in the Plant 9 area were concentrated in drainageways and near aboveground tanks outside the special products plant. Inside the building, sampling locations were selected near entranceways, sumps, and the Zirnlo process area. Following initial sample screening, additional sampling was performed near the southeast corner of the main plant building and at a few miscellaneous locations throughout the area. Surface sample locations are shown in Figure D.2-9.

Selected samples were tested based on the requirements of the exploration programs under which they were obtained. The test results from all the programs in the area were combined for this discussion. The test results were compared to the 95th percentile background values (background) for each radionuclide and inorganic constituent and with their respective detection limits for organics, PCBs, and pesticides. Table D.2-6 presents the distribution of constituents with respect to these levels by depth interval. Isoconcentration maps showing the lateral extent of the levels of the various constituents by depth interval are presented in the Plates.

Testing for total uranium and total thorium was performed on samples to characterize radionuclide contamination of surface soil in the Plant 9 area. Testing for other radionuclides was limited to a smaller set of samples within the area. Samples tested for radionuclides showed levels of total uranium and total thorium, uranium and thorium isotopes, and strontium-90 greater than twice, and generally greater than five times, background for all surface soil intervals. The highest concentration of total uranium (217 mg/kg) detected in the surface soil was located directly east of Plant 9 at 0- to

0.5 feet. Technetium-99 was detected in the 0-to 0.5-foot and 1.0- to 1.5-foot intervals, but no background level was recorded. All other radionuclides were below background or were not detected.

Testing for inorganics was concentrated near the southeast corner of the main plant building where the decladding processes occurred. Most inorganics were detected at levels below background in the surface sampling zone. Cadmium, calcium, magnesium, and sodium were detected at levels of at least five times background. At least one sample contained cyanide at a level greater than twice background in the 1.0- to 1.5-foot interval. Beryllium, chromium, copper, nickel, potassium, and zinc were detected at levels less than twice background. Silver was detected throughout the surface sampling zone, but background level was not recorded for this constituent. All other inorganics were below background or were not detected.

A limited number of volatile organics were detected in samples tested within the surface sampling zone near the southwest corner of the building. As shown in Table D.2-6, many of the detected volatiles are chlorinated hydrocarbons. Just as with the volatile organics, only a limited number of semivolatile organics were detected in samples tested from the surface sampling zone. Only bis(2-ethylhexyl)phthalate was detected in the surface sampling interval. Phthalates are common laboratory contaminants and, potentially, may not be present in the surface soil collected in this area. No pesticides were detected in the surface sampling zone. Aroclor-1254, a PCB, was detected at Boring 1565 in the 1.0- to 1.5-foot interval at a level of 40 μg/kg.

Subsurface Soil

Subsurface sampling was primarily performed in the southeastern portion of the Plant 9 area, as shown in Figure D.2-9. Table D.2-6 presents the distribution of constituents in the Plant 9 area subsurface soil with respect to the 95th percentile background value (background).

Total uranium was detected at levels greater than five times background in the subsurface soil. Highest total uranium concentrations detected ranged from 200 to 300 mg/kg. These significantly elevated levels of total uranium were detected from the 3.0- through the 20.0-foot depth interval, mainly located near the Plant 9 pad area. Levels of total thorium and strontium-90 were also detected at levels greater than five times background from 1.5 to 3.0 feet. Total thorium levels ranged from

two to five times background below 3.0 feet. Other radionuclide levels were typically below background.

The levels of most inorganics detected in the subsurface are less than surface levels and are below background. Detected levels of beryllium, molybdenum, and sodium were above background from 1.5 to 5.0 feet. Levels of cadmium with detections at least twice background occurred to depths of 5 feet. Silver was detected throughout the subsurface, but no background level was recorded.

Subsurface detections of volatile organics, semivolatile organics, and pesticides were primarily limited to the southeast corner of the main building in the Plant 9 area. The following 11 volatile organics were detected in about 20 to 30 percent of the samples tested in the 1.5- to 3.0-foot and 3.0- to 5.0-foot intervals of the subsurface soil.

1,1,1-Trichloroethane	1,1-Dichloroethene
2-Butanone	2-Hexanone
4-Methyl-2-pentanone	Acetone
Chloroform	Carbon disulfide
Trichloroethene	Tetrachloroethene
Toluene	

Below a 5-foot depth, 4-methyl-2-pentanone, acetone, chloroform, carbon disulfide, trichloroethene, and toluene were detected.

As in the surface sampling zone, bis(2-ethylhexyl)phthalate was the only semivolatile detected in the subsurface. No more than two samples were tested in each interval. No pesticides or PCBs were detected in any samples.

Conclusions

Contamination present at the Plant 9 area is primarily limited to the surface soil both beneath and outside the building. Radionuclides present at elevated levels were primarily limited to the top 5 feet, except for total uranium which is present in the subsurface soil at levels significantly elevated above background. Inorganics present at elevated levels are generally limited to the top 3 feet of soil. Surface soil radionuclide and inorganic contamination typically resulted from airborne deposition or surface spills. Organics, in limited number, were present in both the surface and subsurface soil.

The probable sources of soil contamination beneath Plant 9 are leaks in process equipment, tanks, and sumps. In particular, two sumps (designated 9H and 9I) shown in Figure D.2-9 appear to have leaked, as indicated by the elevated uranium concentrations, which are present to depths of 20 feet. Volatile organic contamination is most likely attributable to leaks in the sump (see Figure D.2-9) near the southeast corner of the main building.

TABLE D.2-6
PLANT 9 AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	5	■	■	■	■	○	■	■	■	■	⊙	-	-	-	⊙	X	-	○
0.5 - 1	4	■	■	■	●	○	■	○	⊙	○	●	X	-	-	⊙	-	-	-
1 - 1.5	7	■	■	■	⊙	○	■	■	■	■	■	-	-	-	■	X	-	○
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	9	■	■	■	●	○	■	●	■	○	●	-	-	-	■	X	-	-
3 - 5	5		■		○	○		○	●	○	○						-	-
5 - 10	6	○	■	○	○	○	-	○	⊙	○	○						-	-
10 - 15	6	○	■	○	○	○	-	○	○	○	○	-	-	-			-	-
15 - 20	7	⊙	■	⊙	○	○	⊙	○	⊙	○	○						-	X

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	1	○		○	○	○	-	■	○	○	●	-	○	○	■	○	-	-	○	●	-	○	X	⊙	-	○	○
0.5 - 1	1	○		○	○	●	⊙	■	●	○	●	-	○	○	⊙	○	○	X	●	○	-		X		-	○	●
1 - 1.5	4	○		○	○	●	■	■	●	○	●	⊙	○	○	■	○	-	X	●	●	-	○	X	■	-	○	○
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1690	ND	285	0.49	37.8	82
1.5 - 3	2	○		○	○	●	⊙	○	○	○	○	-	○	○	○	○	-	●	○	○	-	○	X	●	-	○	○
3 - 5	1	○		○	○	●	⊙	○	●	○	○	●	○	○	○	○	-	○	○	○	-		X	●	-	○	○
5 - 10	2	○		○	○	○	-	○	○	○	○	-	○	○	○	○	-	-	○	●	-	○	X	○	-	○	○
10 - 15	1	○		○	○	○	-	○	○	○	○	○	○	○	○	○	-	-	○	○	-	○	X	○	-	○	○
15 - 20	1	○		○	○	○	-	○	○	○	○	-	○	○	○	○	-	-	○	○	-	○	X	○	-	○	○

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

⊙ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-6
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)																				SEMIVOLATILES (ug/kg)		PESTICIDES/PCBs (ug/kg)	
	Number of Samples (a)	1,1,1-Trichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	1,1,2-Trichloroethene	1,1,2,2-Tetrachloroethane	1,1-Dichloroethane	2-Butanone	2-Hexanone	4-Methyl-2-pentanone	Acetone	Bromodichloromethane	Chlorobenzene	Chloroform	Carbon disulfide	Ethyl benzene	Methylene chloride	Trichloroethene	Tetrachloroethene	Toluene	Number of Samples (a)	Bis(2-ethylhexyl)phthalate	Number of Samples (a)	Aroclor-1254
Surface Soil:																								
0 - 0.5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
0.5 - 1	2	-	-	-	-	X	-	-	-	X	-	-	X	-	X	X	-	-	-	X	1	-	1	-
1 - 1.5	5	X	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	X	X	-	4	X	4	X
Subsurface Soil:																								
1.5 - 3	15	X	-	-	X	-	-	-	-	X	X	X	-	X	X	-	-	X	X	X	2	X	2	-
3 - 5	10	X	X	X	X	-	X	X	X	X	X	-	-	X	X		-	X	X	X	1	-	1	-
5 - 10	10	X	-	-	-	-	-	-	-	X	X	X	-	X	X	-	-	-	-	X	2	-	2	-
10 - 15	9	-	-	-	-	-	-	-	-	X	X	-	-	-	X	-	X	-	-	-	1	X	1	-
15 - 20	9	-	-	-	-	-	-	X	-	X	X	-	-	X	X	-	-	X	-	X	1	-	1	-

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

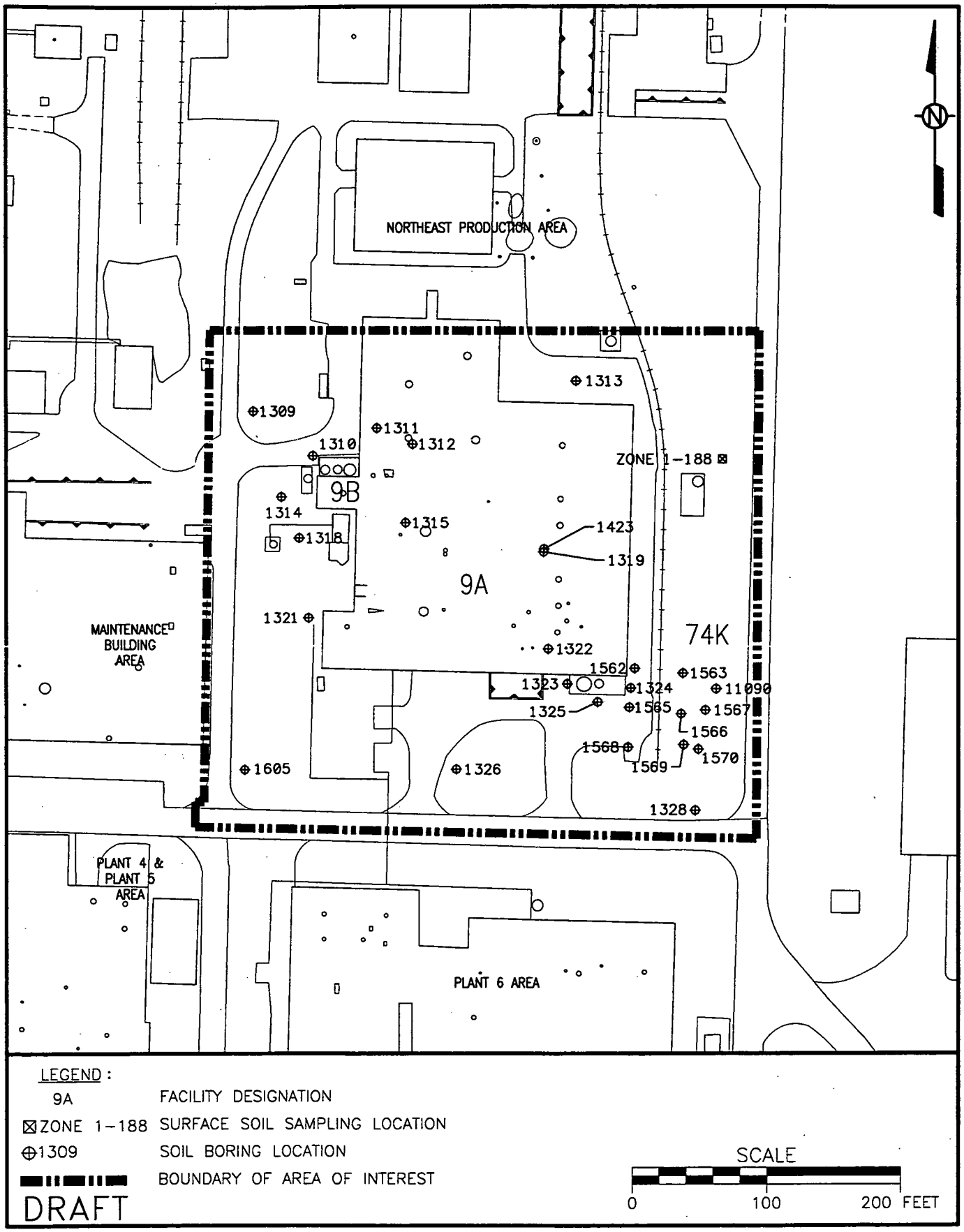

FIGURE D.2-9. PLANT 9 AREA

Plant 9 Area

Summary Soil Statistics

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	8/8	8	7/8	1.000-94.200	34.74	6.000	29.000	1.24
URANIUM, TOTAL	MG/KG	11/12	0	9/12	2.100-3504.000	393.69	11.000	11.000	3.73
URANIUM-234	PCI/G	8/8	8	7/8	1.100-106.000	40.06	6.000	29.000	1.24
THORIUM-230	PCI/G	7/7	7	2/7	0.700-5.480	2.31	6.000	29.000	1.97
RADIUM-226	PCI/G	6/8	8	0/8	0.684-0.836	0.76	0.300	0.320	1.42
URANIUM-235/236	PCI/G	7/8	8	7/8	0.200-18.700	5.57	0.600	0.600	0.156
THORIUM-232	PCI/G	6/7	7	2/7	0.600-35.600	6.78	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	10/11	0	3/11	4.440-321.000	41.35	23.000	23.000	12.4
RADIUM-228	PCI/G	5/8	8	2/8	0.820-50.370	10.89	0.500	0.700	1.25
THORIUM-228	PCI/G	6/7	7	3/7	0.500-37.700	7.38	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/7	7	0/7			0.600	0.600	NA
STRONTIUM-90	PCI/G	4/4	4	4/4	0.649-6.220	4.04	6.000	29.000	0.424
TECHNETIUM-99	PCI/G	1/4	4	1/4	2.400-2.400	2.40	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/7	7	0/7			1.000	1.700	NA
CESIUM-137	PCI/G	1/7	7	0/7	0.469-0.469	0.47	0.200	0.200	0.711

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	7/7	7	5/7	0.700-115.000	23.14	6.000	11.000	1.12
URANIUM, TOTAL	MG/KG	20/23	0	18/23	2.400-354.000	47.94	11.000	11.000	3.69
URANIUM-234	PCI/G	7/7	7	6/7	0.700-118.000	24.67	6.000	11.000	1.04
THORIUM-230	PCI/G	9/9	9	1/9	0.850-2.460	1.38	6.000	11.000	1.91
RADIUM-226	PCI/G	10/10	10	0/10	0.500-0.950	0.78	6.000	11.000	1.47
URANIUM-235/236	PCI/G	4/7	7	4/7	0.651-36.200	10.28	0.100	0.600	0.150
THORIUM-232	PCI/G	8/9	9	1/9	0.665-1.460	0.98	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	13/17	0	3/17	5.310-66.000	12.88	23.000	23.000	11.1
RADIUM-228	PCI/G	7/10	10	0/10	0.660-1.000	0.81	0.500	0.500	1.31
THORIUM-228	PCI/G	7/7	7	1/7	0.792-1.600	1.06	6.000	11.000	1.38
NEPTUNIUM-237	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/7	7	0/7			0.600	0.600	NA
STRONTIUM-90	PCI/G	4/4	4	4/4	1.300-2.540	1.80	6.000	11.000	.436
TECHNETIUM-99	PCI/G	1/4	4	1/4	1.300-1.300	1.30	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/9	9	0/9			1.000	1.000	NA
CESIUM-137	PCI/G	0/9	9	0/9			0.200	0.200	NA

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	8/9	0	4/9	1.550-260.000	65.94	11.000	11.000	3.69
THORIUM-230	PCI/G	3/5	5	0/5	1.250-1.750	1.48	0.600	0.600	1.91
RADIUM-226	PCI/G	4/4	4	0/4	0.478-0.852	0.72	6.000	6.000	1.47
THORIUM-232	PCI/G	4/5	5	0/5	0.615-0.850	0.72	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	7/9	0	2/9	3.230-15.000	8.16	4.000	23.000	11.1
RADIUM-228	PCI/G	3/4	4	0/4	0.521-0.703	0.62	0.500	0.500	1.31
THORIUM-228	PCI/G	3/5	5	0/5	0.703-0.897	0.80	0.600	0.600	1.38
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	4	0/4			0.200	0.200	NA

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	2/2	2	0/2	0.700-0.800	0.75	5.000	11.000	1.12
URANIUM, TOTAL	MG/KG	15/20	0	9/20	2.260-292.000	30.31	1.570	11.000	3.69
URANIUM-234	PCI/G	2/2	2	0/2	0.500-0.600	0.55	5.000	11.000	1.04
THORIUM-230	PCI/G	5/5	5	0/5	0.500-1.540	1.11	5.000	11.000	1.91
RADIUM-226	PCI/G	5/5	5	0/5	0.500-0.730	0.65	5.000	11.000	1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.100	0.100	0.150
THORIUM-232	PCI/G	3/5	5	0/5	0.500-1.020	0.74	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	10/15	0	1/15	3.590-28.000	9.12	23.000	23.000	11.1
RADIUM-228	PCI/G	3/5	5	0/5	0.609-0.670	0.64	0.500	0.500	1.31
THORIUM-228	PCI/G	4/5	5	0/5	0.500-0.890	0.69	0.600	0.600	1.38
RUTHENIUM-106	PCI/G	0/3	3	0/3			1.000	1.000	NA
CESIUM-137	PCI/G	0/3	3	0/3			0.200	0.200	NA

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	3/3	3	0/3	0.700-0.949	0.79	6.000	11.000	1.12
URANIUM, TOTAL	MG/KG	13/20	0	2/20	2.000-79.000	8.86	3.100	11.000	3.69
URANIUM-234	PCI/G	3/3	3	0/3	0.500-0.907	0.74	6.000	11.000	1.04
THORIUM-230	PCI/G	6/7	7	0/7	0.800-1.530	1.21	0.600	0.600	1.91
RADIUM-226	PCI/G	5/6	6	0/6	0.520-0.798	0.69	0.300	0.300	1.47
URANIUM-235/236	PCI/G	0/3	3	0/3			0.100	0.600	0.150
THORIUM-232	PCI/G	3/7	7	0/7	0.624-0.844	0.76	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	10/17	0	0/17	2.470-7.610	5.66	3.800	23.000	11.1
RADIUM-228	PCI/G	2/6	6	0/6	0.687-0.916	0.80	0.500	0.500	1.31
THORIUM-228	PCI/G	4/7	7	0/7	0.640-0.800	0.70	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
RUTHENIUM-106	PCI/G	0/5	5	0/5			1.000	1.000	NA
CESIUM-137	PCI/G	0/5	5	0/5			0.200	0.200	NA

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	2/2	2	1/2	0.600-2.600	1.60	6.000	11.000	1.12
URANIUM, TOTAL	MG/KG	16/19	0	8/19	2.000-115.400	13.28	3.000	11.000	3.69
URANIUM-234	PCI/G	2/2	2	1/2	0.600-2.900	1.75	6.000	11.000	1.04
THORIUM-230	PCI/G	8/8	8	0/8	0.700-1.880	1.20	6.000	11.000	1.91
RADIUM-226	PCI/G	6/6	6	0/6	0.400-0.925	0.68	6.000	11.000	1.47
URANIUM-235/236	PCI/G	1/2	2	1/2	0.600-0.600	0.60	0.100	0.100	0.150
THORIUM-232	PCI/G	5/8	8	0/8	0.500-1.030	0.77	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	11/17	0	1/17	4.110-28.500	8.24	2.770	23.000	11.1
RADIUM-228	PCI/G	3/6	6	0/6	0.650-0.791	0.72	0.500	0.600	1.31
THORIUM-228	PCI/G	5/8	8	0/8	0.500-1.080	0.76	0.600	0.600	1.38
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	1/4	4	1/4	0.242-0.242	0.24	0.200	0.200	NA

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.800-0.800	0.80	12.000	12.000	1.12
URANIUM, TOTAL	MG/KG	1/1	1	0/1	2.500-2.500	2.50	12.000	12.000	3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.600-0.600	0.60	12.000	12.000	1.04
THORIUM-230	PCI/G	1/1	1	0/1	1.000-1.000	1.00	12.000	12.000	1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.400-0.400	0.40	12.000	12.000	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.700-0.700	0.70	12.000	12.000	1.26
THORIUM, TOTAL	MG/KG	1/1	0	0/1	6.384-6.384	6.38	12.000	12.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.800-0.800	0.80	12.000	12.000	1.38

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	8090.000-8090.000	8090.00	11.000	11.000	11900
ARSENIC	MG/KG	1/1	1	0/1	4.400-4.400	4.40	11.000	11.000	8.20
BARIUM	MG/KG	1/1	1	0/1	50.900-50.900	50.90	11.000	11.000	95.7
BERYLLIUM	MG/KG	1/1	1	0/1	0.460-0.460	0.46	11.000	11.000	0.6
CADMIUM	MG/KG	0/1	1	0/1			1.100	1.100	0.870
CALCIUM	MG/KG	1/1	1	1/1	97900.000-97900.000	97900.00	11.000	11.000	4340
CHROMIUM	MG/KG	1/1	1	0/1	11.400-11.400	11.40	11.000	11.000	15.5
COBALT	MG/KG	1/1	1	0/1	5.300-5.300	5.30	11.000	11.000	14.2
COPPER	MG/KG	1/1	1	1/1	15.100-15.100	15.10	11.000	11.000	14.1
CYANIDE	MG/KG	0/1	1	0/1			0.110	0.110	0.270
IRON	MG/KG	1/1	1	0/1	17700.000-17700.000	17700.00	11.000	11.000	21700
LEAD	MG/KG	1/1	1	0/1	9.100-9.100	9.10	11.000	11.000	26.4
MAGNESIUM	MG/KG	1/1	1	1/1	27700.000-27700.000	27700.00	11.000	11.000	2780
MANGANESE	MG/KG	1/1	1	0/1	333.000-333.000	333.00	11.000	11.000	1350
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.3
MOLYBDENUM	MG/KG	0/1	1	0/1			4.400	4.400	NA
NICKEL	MG/KG	1/1	1	0/1	13.200-13.200	13.20	11.000	11.000	20.9
POTASSIUM	MG/KG	1/1	1	1/1	1290.000-1290.000	1290.00	11.000	11.000	1230
SELENIUM	MG/KG	0/1	1	0/1			2.200	2.200	0.72
SILICON	MG/KG	1/1	1	0/1	445.000-445.000	445.00	11.000	11.000	1800
SILVER	MG/KG	1/1	1	1/1	4.000-4.000	4.00	11.000	11.000	NA
SODIUM	MG/KG	1/1	1	1/1	182.000-182.000	182.00	11.000	11.000	51.1

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.440	0.440	0.58
VANADIUM	MG/KG	1/1	1	0/1	20.900-20.900	20.90	11.000	11.000	30.4
ZINC	MG/KG	1/1	1	0/1	44.000-44.000	44.00	11.000	11.000	59.6

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	8510.000-8510.000	8510.00	6.000	6.000	11900
ARSENIC	MG/KG	1/1	1	0/1	6.200-6.200	6.20	6.000	6.000	8.20
BARIUM	MG/KG	1/1	1	0/1	88.700-88.700	88.70	6.000	6.000	95.7
BERYLLIUM	MG/KG	1/1	1	1/1	0.770-0.770	0.77	6.000	6.000	0.6
CADMIUM	MG/KG	1/1	1	1/1	2.900-2.900	2.90	6.000	6.000	0.870
CALCIUM	MG/KG	1/1	1	1/1	45700.000-45700.000	45700.00	6.000	6.000	4340
CHROMIUM	MG/KG	1/1	1	1/1	23.100-23.100	23.10	6.000	6.000	15.5
COBALT	MG/KG	1/1	1	0/1	11.200-11.200	11.20	6.000	6.000	14.2
COPPER	MG/KG	1/1	1	1/1	23.700-23.700	23.70	6.000	6.000	14.1
CYANIDE	MG/KG	0/1	1	0/1			0.110	0.110	0.270
IRON	MG/KG	1/1	1	0/1	18300.000-18300.000	18300.00	6.000	6.000	21700
LEAD	MG/KG	1/1	1	0/1	16.300-16.300	16.30	6.000	6.000	26.4
MAGNESIUM	MG/KG	1/1	1	1/1	13400.000-13400.000	13400.00	6.000	6.000	2780
MANGANESE	MG/KG	1/1	1	0/1	750.000-750.000	750.00	6.000	6.000	1350
MERCURY	MG/KG	1/1	1	0/1	0.250-0.250	0.25	6.000	6.000	0.3
MOLYBDENUM	MG/KG	1/1	1	1/1	3.500-3.500	3.50	6.000	6.000	NA
NICKEL	MG/KG	1/1	1	1/1	25.700-25.700	25.70	6.000	6.000	20.9
POTASSIUM	MG/KG	1/1	1	0/1	952.000-952.000	952.00	6.000	6.000	1230
SELENIUM	MG/KG	0/1	1	0/1			0.420	0.420	0.72
SILVER	MG/KG	1/1	1	1/1	5.000-5.000	5.00	6.000	6.000	NA
SODIUM	MG/KG	1/1	1	1/1	265.000-265.000	265.00	6.000	6.000	51.1
THALLIUM	MG/KG	0/1	1	0/1			0.420	0.420	0.58

05/24/94

DRAFT

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
VANADIUM	MG/KG	1/1	1	0/1	22.600-22.600	22.60	6.000	6.000	30.4
ZINC	MG/KG	1/1	1	1/1	86.500-86.500	86.50	6.000	6.000	59.6

000371

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5699

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% - Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	4/4	4	0/4	2590.000-8010.000	5337.50	6.000	29.000	11900
ARSENIC	MG/KG	4/4	4	0/4	3.600-5.400	4.32	6.000	29.000	8.20
BARIUM	MG/KG	4/4	4	0/4	21.600-51.500	36.73	6.000	29.000	95.7
BERYLLIUM	MG/KG	4/4	4	2/4	0.490-1.100	0.73	6.000	29.000	0.6
CADMIUM	MG/KG	3/4	4	3/4	4.000-6.300	5.30	1.100	1.100	0.870
CALCIUM	MG/KG	4/4	4	4/4	112000.000-153000.000	133000.00	6.000	29.000	4340
CHROMIUM	MG/KG	4/4	4	1/4	10.800-18.800	13.63	6.000	29.000	15.5
COBALT	MG/KG	4/4	4	0/4	6.500-11.000	7.78	6.000	29.000	14.2
COPPER	MG/KG	4/4	4	4/4	14.300-21.300	16.83	6.000	29.000	14.1
CYANIDE	MG/KG	1/4	4	1/4	1.228-1.228	1.23	0.110	0.110	0.270
IRON	MG/KG	4/4	4	0/4	7630.000-18400.000	12877.50	6.000	29.000	21700
LEAD	MG/KG	4/4	4	0/4	6.100-11.100	8.06	6.000	29.000	26.4
MAGNESIUM	MG/KG	4/4	4	4/4	21200.000-52600.000	34275.00	6.000	29.000	2780
MANGANESE	MG/KG	4/4	4	0/4	262.000-592.000	402.50	6.000	29.000	1350
MERCURY	MG/KG	0/4	4	0/4			0.100	0.110	0.3
MOLYBDENUM	MG/KG	2/2	2	2/2	3.800-4.300	4.05	6.000	29.000	NA
NICKEL	MG/KG	4/4	4	1/4	16.400-25.800	20.30	6.000	29.000	20.9
POTASSIUM	MG/KG	4/4	4	2/4	490.000-1420.000	948.00	6.000	29.000	1230
SELENIUM	MG/KG	0/4	4	0/4			0.410	2.100	0.72
SILICON	MG/KG	1/1	1	0/1	802.000-802.000	802.00	6.000	29.000	1800
SILVER	MG/KG	4/4	4	4/4	4.100-6.900	5.08	6.000	29.000	NA
SODIUM	MG/KG	4/4	4	4/4	142.000-323.000	216.00	6.000	29.000	51.1

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000372

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
THALLIUM	MG/KG	0/4	4	0/4			0.410	0.450	0.58
VANADIUM	MG/KG	4/4	4	0/4	13.200-21.800	17.63	6.000	29.000	30.4
ZINC	MG/KG	4/4	4	0/4	22.900-41.100	32.88	6.000	29.000	59.6

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	2/2	0	0/2	7230.000-7500.000	7365.00	6.000	11.000	16100
ANTIMONY	MG/KG	1/1	0	1/1	7.300-7.300	7.30	1.100	1.100	NA
ARSENIC	MG/KG	2/2	0	0/2	4.200-4.800	4.50	6.000	11.000	9.57
BARIUM	MG/KG	2/2	0	0/2	50.500-69.800	60.15	6.000	11.000	119
BERYLLIUM	MG/KG	2/2	0	1/2	0.510-0.790	0.65	6.000	11.000	0.620
CADMIUM	MG/KG	1/2	0	1/2	3.700-3.700	3.70	1.100	1.100	0.910
CALCIUM	MG/KG	2/2	0	0/2	107000.000-128000.000	117500.00	6.000	11.000	150000
CHROMIUM	MG/KG	2/2	0	0/2	10.700-17.600	14.15	6.000	11.000	20.7
COBALT	MG/KG	2/2	0	0/2	4.200-10.500	7.35	6.000	11.000	15.7
COPPER	MG/KG	2/2	0	0/2	13.400-19.400	16.40	6.000	11.000	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.110	0.120	.17
IRON	MG/KG	2/2	0	0/2	16000.000-18700.000	17350.00	6.000	11.000	30700
LEAD	MG/KG	2/2	0	0/2	7.400-8.100	7.75	6.000	11.000	15.6
MAGNESIUM	MG/KG	2/2	0	0/2	26600.000-30600.000	28600.00	6.000	11.000	42600
MANGANESE	MG/KG	2/2	0	0/2	425.000-544.000	484.50	6.000	11.000	1300
MERCURY	MG/KG	0/2	0	0/2			0.100	0.100	0.29
MOLYBDENUM	MG/KG	1/2	0	1/2	3.000-3.000	3.00	4.200	4.200	2.7
NICKEL	MG/KG	2/2	0	0/2	12.000-25.800	18.90	6.000	11.000	34.3
POTASSIUM	MG/KG	2/2	0	0/2	1240.000-1270.000	1255.00	6.000	11.000	1980
SELENIUM	MG/KG	0/2	0	0/2			0.450	1.800	NA
SILICON	MG/KG	1/1	1	0/1	758.000-758.000	758.00	6.000	11.000	1590
SILVER	MG/KG	1/2	0	1/2	4.800-4.800	4.80	2.100	2.100	NA

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	2/2	0	1/2	167.000-411.000	289.00	6.000	11.000	285
THALLIUM	MG/KG	0/2	0	0/2			0.350	0.450	0.49
VANADIUM	MG/KG	2/2	0	0/2	19.400-20.600	20.00	6.000	11.000	37.8
ZINC	MG/KG	2/2	0	0/2	37.500-41.500	39.50	6.000	11.000	82.0

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	11100.000-11100.000	11100.00	6.000	6.000	16100
ARSENIC	MG/KG	1/1	1	0/1	4.700-4.700	4.70	6.000	6.000	9.57
BARIUM	MG/KG	1/1	1	0/1	74.000-74.000	74.00	6.000	6.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	0.800-0.800	0.80	6.000	6.000	0.620
CADMIUM	MG/KG	1/1	1	1/1	3.000-3.000	3.00	6.000	6.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	61700.000-61700.000	61700.00	6.000	6.000	150000
CHROMIUM	MG/KG	1/1	1	1/1	23.200-23.200	23.20	6.000	6.000	20.7
COBALT	MG/KG	1/1	1	0/1	10.700-10.700	10.70	6.000	6.000	15.7
COPPER	MG/KG	1/1	1	0/1	19.900-19.900	19.90	6.000	6.000	20.0
CYANIDE	MG/KG	1/1	1	1/1	0.180-0.180	0.18	6.000	6.000	.17
IRON	MG/KG	1/1	1	0/1	22800.000-22800.000	22800.00	6.000	6.000	30700
LEAD	MG/KG	1/1	1	0/1	12.800-12.800	12.80	6.000	6.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	15000.000-15000.000	15000.00	6.000	6.000	42600
MANGANESE	MG/KG	1/1	1	0/1	462.000-462.000	462.00	6.000	6.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.29
MOLYBDENUM	MG/KG	1/1	1	0/1	2.400-2.400	2.40	6.000	6.000	2.7
NICKEL	MG/KG	1/1	1	0/1	25.000-25.000	25.00	6.000	6.000	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1420.000-1420.000	1420.00	6.000	6.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.430	0.430	NA
SILVER	MG/KG	1/1	1	1/1	5.300-5.300	5.30	6.000	6.000	NA
SODIUM	MG/KG	1/1	1	1/1	425.000-425.000	425.00	6.000	6.000	285
THALLIUM	MG/KG	0/1	1	0/1			0.430	0.430	0.49

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
VANADIUM	MG/KG	1/1	1	0/1	23.700-23.700	23.70	6.000	6.000	37.8
ZINC	MG/KG	1/1	1	0/1	53.600-53.600	53.60	6.000	6.000	82.0

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	8140.000-10500.000	9320.00	5.000	11.000	16100
ARSENIC	MG/KG	2/2	2	0/2	3.600-5.000	4.30	5.000	11.000	9.57
BARIUM	MG/KG	2/2	2	0/2	44.200-45.000	44.60	5.000	11.000	119
BERYLLIUM	MG/KG	1/2	2	0/2	0.620-0.620	0.62	0.450	0.450	0.620
CADMIUM	MG/KG	0/2	2	0/2			1.100	1.100	0.910
CALCIUM	MG/KG	2/2	2	0/2	105000.000-115000.000	110000.00	5.000	11.000	150000
CHROMIUM	MG/KG	2/2	2	0/2	11.900-14.500	13.20	5.000	11.000	20.7
COBALT	MG/KG	2/2	2	0/2	5.800-7.100	6.45	5.000	11.000	15.7
COPPER	MG/KG	2/2	2	0/2	15.300-17.300	16.30	5.000	11.000	20.0
CYANIDE	MG/KG	0/2	2	0/2			0.110	0.110	.17
IRON	MG/KG	2/2	2	0/2	18300.000-20000.000	19150.00	5.000	11.000	30700
LEAD	MG/KG	2/2	2	0/2	8.900-10.200	9.55	5.000	11.000	15.6
MAGNESIUM	MG/KG	2/2	2	0/2	25200.000-28900.000	27050.00	5.000	11.000	42600
MANGANESE	MG/KG	2/2	2	0/2	455.000-703.000	579.00	5.000	11.000	1300
MERCURY	MG/KG	0/2	2	0/2			0.100	0.110	0.29
MOLYBDENUM	MG/KG	0/2	2	0/2			4.400	4.500	2.7
NICKEL	MG/KG	2/2	2	0/2	17.500-19.000	18.25	5.000	11.000	34.3
POTASSIUM	MG/KG	2/2	2	1/2	1650.000-2190.000	1920.00	5.000	11.000	1980
SELENIUM	MG/KG	0/2	2	0/2			0.400	0.430	NA
SILICON	MG/KG	2/2	2	0/2	512.000-669.000	590.50	5.000	11.000	1590
SILVER	MG/KG	2/2	2	2/2	4.100-4.500	4.30	5.000	11.000	NA
SODIUM	MG/KG	2/2	2	0/2	176.000-181.000	178.50	5.000	11.000	285

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000378

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
THALLIUM	MG/KG	0/2	2	0/2			0.400	0.430	0.49
VANADIUM	MG/KG	2/2	2	0/2	21.300-25.000	23.15	5.000	11.000	37.8
ZINC	MG/KG	2/2	2	0/2	45.200-64.200	54.70	5.000	11.000	82.0

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	7160.000-7160.000	7160.00	6.000	11.000	16100
ARSENIC	MG/KG	1/1	1	0/1	3.200-3.200	3.20	6.000	11.000	9.57
BARIUM	MG/KG	1/1	1	0/1	93.500-93.500	93.50	6.000	11.000	119
BERYLLIUM	MG/KG	1/1	1	0/1	0.450-0.450	0.45	6.000	11.000	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.100	1.100	0.910
CALCIUM	MG/KG	1/1	1	0/1	112000.000-112000.000	112000.00	6.000	11.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	10.300-10.300	10.30	6.000	11.000	20.7
COBALT	MG/KG	1/1	1	0/1	5.200-5.200	5.20	6.000	11.000	15.7
COPPER	MG/KG	1/1	1	0/1	19.000-19.000	19.00	6.000	11.000	20.0
CYANIDE	MG/KG	1/1	1	0/1	0.140-0.140	0.14	6.000	11.000	.17
IRON	MG/KG	1/1	1	0/1	17500.000-17500.000	17500.00	6.000	11.000	30700
LEAD	MG/KG	1/1	1	0/1	7.700-7.700	7.70	6.000	11.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	29000.000-29000.000	29000.00	6.000	11.000	42600
MANGANESE	MG/KG	1/1	1	0/1	434.000-434.000	434.00	6.000	11.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.100	0.100	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.400	4.400	2.7
NICKEL	MG/KG	1/1	1	0/1	13.900-13.900	13.90	6.000	11.000	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1440.000-1440.000	1440.00	6.000	11.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.420	0.420	NA
SILICON	MG/KG	1/1	1	0/1	561.000-561.000	561.00	6.000	11.000	1590
SILVER	MG/KG	1/1	1	1/1	3.700-3.700	3.70	6.000	11.000	NA
SODIUM	MG/KG	1/1	1	0/1	190.000-190.000	190.00	6.000	11.000	285

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.420	0.420	0.49
VANADIUM	MG/KG	1/1	1	0/1	20.100-20.100	20.10	6.000	11.000	37.8
ZINC	MG/KG	1/1	1	0/1	49.500-49.500	49.50	6.000	11.000	82.0

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5699

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 15 - 20 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	7510.000-7510.000	7510.00	6.000	11.000	16100
ARSENIC	MG/KG	1/1	1	0/1	2.900-2.900	2.90	6.000	11.000	9.57
BARIUM	MG/KG	1/1	1	0/1	53.700-53.700	53.70	6.000	11.000	119
BERYLLIUM	MG/KG	1/1	1	0/1	0.490-0.490	0.49	6.000	11.000	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.000	1.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	114000.000-114000.000	114000.00	6.000	11.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	11.100-11.100	11.10	6.000	11.000	20.7
COBALT	MG/KG	1/1	1	0/1	5.000-5.000	5.00	6.000	11.000	15.7
COPPER	MG/KG	1/1	1	0/1	14.500-14.500	14.50	6.000	11.000	20.0
CYANIDE	MG/KG	0/1	1	0/1					.17
IRON	MG/KG	1/1	1	0/1	15600.000-15600.000	15600.00	6.000	11.000	30700
LEAD	MG/KG	1/1	1	0/1	8.200-8.200	8.20	6.000	11.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	28900.000-28900.000	28900.00	6.000	11.000	42600
MANGANESE	MG/KG	1/1	1	0/1	407.000-407.000	407.00	6.000	11.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.100	0.100	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.100	4.100	2.7
NICKEL	MG/KG	1/1	1	0/1	15.100-15.100	15.10	6.000	11.000	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1690.000-1690.000	1690.00	6.000	11.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.420	0.420	NA
SILICON	MG/KG	1/1	1	0/1	450.000-450.000	450.00	6.000	11.000	1590
SILVER	MG/KG	1/1	1	1/1	2.400-2.400	2.40	6.000	11.000	NA
SODIUM	MG/KG	1/1	1	0/1	190.000-190.000	190.00	6.000	11.000	285

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.420	0.420	0.49
VANADIUM	MG/KG	1/1	1	0/1	19.200-19.200	19.20	6.000	11.000	37.8
ZINC	MG/KG	1/1	1	0/1	38.700-38.700	38.70	6.000	11.000	82.0

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 20 - 9999 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	9390.000-9390.000	9390.00	12.000	12.000	16100
ARSENIC	MG/KG	1/1	1	0/1	2.700-2.700	2.70	12.000	12.000	9.57
BARIUM	MG/KG	1/1	1	0/1	56.000-56.000	56.00	12.000	12.000	119
BERYLLIUM	MG/KG	1/1	1	0/1	0.580-0.580	0.58	12.000	12.000	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.100	1.100	0.910
CALCIUM	MG/KG	1/1	1	0/1	98500.000-98500.000	98500.00	12.000	12.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	12.800-12.800	12.80	12.000	12.000	20.7
COBALT	MG/KG	1/1	1	0/1	6.100-6.100	6.10	12.000	12.000	15.7
COPPER	MG/KG	1/1	1	0/1	17.400-17.400	17.40	12.000	12.000	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.120	0.120	.17
IRON	MG/KG	1/1	1	0/1	19500.000-19500.000	19500.00	12.000	12.000	30700
LEAD	MG/KG	1/1	1	0/1	8.400-8.400	8.40	12.000	12.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	27600.000-27600.000	27600.00	12.000	12.000	42600
MANGANESE	MG/KG	1/1	1	0/1	441.000-441.000	441.00	12.000	12.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.120	0.120	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.300	4.300	2.7
NICKEL	MG/KG	1/1	1	0/1	17.200-17.200	17.20	12.000	12.000	34.3
POTASSIUM	MG/KG	1/1	1	1/1	2070.000-2070.000	2070.00	12.000	12.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.450	0.450	NA
SILICON	MG/KG	1/1	1	0/1	654.000-654.000	654.00	12.000	12.000	1590
SILVER	MG/KG	1/1	1	1/1	4.400-4.400	4.40	12.000	12.000	NA
SODIUM	MG/KG	1/1	1	0/1	211.000-211.000	211.00	12.000	12.000	285

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 20 - 9999 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.450	0.450	0.49
VANADIUM	MG/KG	1/1	1	0/1	23.600-23.600	23.60	12.000	12.000	37.8
ZINC	MG/KG	1/1	1	0/1	47.400-47.400	47.40	12.000	12.000	82.0

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			11.000	11.000	
BENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
TOLUENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/1	1	1/1	2.000-2.000	2.00	6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	1/1	1	1/1	4.000-4.000	4.00	6.000	6.000	
ACETONE	UG/KG	0/1	1	0/1			11.000	11.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	1/1	1	1/1	4.000-4.000	4.00	6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	1/1	1	1/1	1.000-1.000	1.00	6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	1/1	1	1/1	2.000-2.000	2.00	6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			20.000	20.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	1/1	1	1/1	2.000-2.000	2.00	6.000	6.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/4	4	1/4	1.000-1.000	1.00	6.000	29.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			6.000	29.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	29.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	29.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			6.000	29.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	29.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/4	4	1/4	20.000-20.000	20.00	6.000	29.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			6.000	29.000	
2-BUTANONE	UG/KG	0/3	3	0/3			11.000	58.000	
2-HEXANONE	UG/KG	0/4	4	0/4			11.000	58.000	
4-METHYL-2-PENTANONE	UG/KG	1/4	4	1/4	76.000-76.000	76.00	11.000	58.000	
ACETONE	UG/KG	1/4	4	1/4	94.000-94.000	94.00	11.000	58.000	
BENZENE	UG/KG	0/4	4	0/4			6.000	29.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	29.000	
BROMOFORM	UG/KG	0/4	4	0/4			6.000	29.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	58.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			6.000	29.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			6.000	29.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			6.000	29.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	58.000	
CHLOROFORM	UG/KG	0/4	4	0/4			6.000	29.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	58.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	29.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	29.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			6.000	29.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			9.000	29.000	
STYRENE	UG/KG	0/4	4	0/4			6.000	29.000	
TETRACHLOROETHENE	UG/KG	2/4	4	2/4	12.000-20.000	16.00	6.000	29.000	
TOLUENE	UG/KG	0/4	4	0/4			6.000	29.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	29.000	
TRICHLOROETHENE	UG/KG	2/4	4	2/4	53.000-64.000	58.50	6.000	11.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			11.000	58.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	58.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			6.000	29.000	

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	2/16	16	2/16	2.000-2.000	2.00	6.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/16	16	0/16			6.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	1/16	16	1/16	2.000-2.000	2.00	6.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/16	16	0/16			6.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/16	16	0/16			6.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/16	16	0/16			6.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/16	16	1/16	25.000-25.000	25.00	6.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/16	16	0/16			6.000	11.000	
2-BUTANONE	UG/KG	0/10	10	0/10			11.000	13.000	
2-HEXANONE	UG/KG	0/16	16	0/16			11.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	6/16	16	6/16	1.000-44.000	17.00	11.000	13.000	
ACETONE	UG/KG	4/16	16	4/16	6.000-51.000	25.25	11.000	33.000	
BENZENE	UG/KG	0/16	16	0/16			6.000	11.000	
BROMODICHLOROMETHANE	UG/KG	1/16	16	1/16	7.000-7.000	7.00	6.000	11.000	
BROMOFORM	UG/KG	0/16	16	0/16			6.000	11.000	
BROMOMETHANE	UG/KG	0/16	16	0/16			11.000	13.000	
CARBON DISULFIDE	UG/KG	9/16	16	9/16	1.000-14.000	5.11	6.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/16	16	0/16			6.000	11.000	
CHLOROBENZENE	UG/KG	0/16	16	0/16			6.000	11.000	
CHLOROETHANE	UG/KG	0/16	16	0/16			11.000	13.000	
CHLOROFORM	UG/KG	1/16	16	1/16	85.000-85.000	85.00	6.000	11.000	
CHLOROMETHANE	UG/KG	0/16	16	0/16			11.000	13.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/16	16	0/16			6.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/16	16	0/16			6.000	11.000	
ETHYLBENZENE	UG/KG	0/16	16	0/16			6.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/16	16	0/16			8.000	93.000	
STYRENE	UG/KG	0/16	16	0/16			6.000	11.000	
TETRACHLOROETHENE	UG/KG	1/16	16	1/16	10.000-10.000	10.00	6.000	11.000	
TOLUENE	UG/KG	1/16	16	1/16	1.000-1.000	1.00	6.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/15	15	0/15			6.000	11.000	
TRICHLOROETHENE	UG/KG	4/16	16	4/16	4.000-1100.000	349.50	6.000	11.000	
VINYL ACETATE	UG/KG	0/16	16	0/16			11.000	13.000	
VINYL CHLORIDE	UG/KG	0/16	16	0/16			11.000	13.000	
XYLENES, TOTAL	UG/KG	0/16	16	0/16			6.000	11.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	3/11	11	3/11	1.000-68.000	35.00	6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/11	11	0/11			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	1/11	11	1/11	4.000-4.000	4.00	6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	1/11	11	1/11	1.000-1.000	1.00	6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	2/11	11	2/11	6.000-13.000	9.50	6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/11	11	0/11			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	3/11	11	3/11	2.000-16.000	8.33	6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/11	11	0/11			6.000	6.000	
2-BUTANONE	UG/KG	1/9	9	1/9	14.000-14.000	14.00	6.000	11.000	
2-HEXANONE	UG/KG	2/11	11	2/11	1.000-1.000	1.00	11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	5/11	11	5/11	1.000-120.000	30.60	11.000	12.000	
ACETONE	UG/KG	5/10	10	5/10	9.000-49.000	28.00	11.000	27.000	
BENZENE	UG/KG	0/11	11	0/11			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/11	11	0/11			6.000	6.000	
BROMOFORM	UG/KG	0/11	11	0/11			6.000	6.000	
BROMOMETHANE	UG/KG	0/11	11	0/11			11.000	12.000	
CARBON DISULFIDE	UG/KG	5/11	11	5/11	2.000-17.000	7.60	6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/11	11	0/11			6.000	6.000	
CHLOROBENZENE	UG/KG	0/11	11	0/11			6.000	6.000	
CHLOROETHANE	UG/KG	1/11	11	1/11	14.000-14.000	14.00	11.000	12.000	
CHLOROFORM	UG/KG	0/11	11	0/11			6.000	6.000	
CHLOROMETHANE	UG/KG	0/11	11	0/11			11.000	12.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/11	11	0/11			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/11	11	0/11			6.000	6.000	
ETHYLBENZENE	UG/KG	0/11	11	0/11			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/11	11	0/11			7.000	22.000	
STYRENE	UG/KG	0/11	11	0/11			6.000	6.000	
TETRACHLOROETHENE	UG/KG	1/11	11	1/11	220.000-220.000	220.00	6.000	6.000	
TOLUENE	UG/KG	1/11	11	1/11	2.000-2.000	2.00	6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/10	10	0/10			6.000	6.000	
TRICHLOROETHENE	UG/KG	2/10	10	2/10	99.000-4400.000	2249.50	6.000	6.000	
VINYL ACETATE	UG/KG	0/11	11	0/11			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/11	11	0/11			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/11	11	0/11			6.000	6.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/10	10	1/10	2.000-2.000	2.00	5.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/10	10	0/10			5.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/10	10	0/10			5.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/10	10	0/10			5.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/10	10	0/10			5.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/10	10	0/10			5.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/10	10	0/10			5.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/10	10	0/10			5.000	11.000	
2-BUTANONE	UG/KG	0/7	7	0/7			11.000	12.000	
2-HEXANONE	UG/KG	0/10	10	0/10			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	4/10	10	4/10	1.000-7.000	3.00	11.000	15.000	
ACETONE	UG/KG	4/10	10	4/10	6.000-30.000	22.50	11.000	73.000	
BENZENE	UG/KG	0/10	10	0/10			5.000	11.000	
BROMODICHLOROMETHANE	UG/KG	1/10	10	1/10	13.000-13.000	13.00	5.000	11.000	
BROMOFORM	UG/KG	0/10	10	0/10			5.000	11.000	
BROMOMETHANE	UG/KG	0/10	10	0/10			11.000	12.000	
CARBON DISULFIDE	UG/KG	9/10	10	9/10	2.000-44.000	7.67	6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/10	10	0/10			5.000	11.000	
CHLOROBENZENE	UG/KG	0/10	10	0/10			5.000	11.000	
CHLOROETHANE	UG/KG	0/10	10	0/10			11.000	12.000	
CHLOROFORM	UG/KG	1/10	10	1/10	130.000-130.000	130.00	5.000	11.000	
CHLOROMETHANE	UG/KG	0/10	10	0/10			11.000	12.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/10	10	0/10			5.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/10	10	0/10			5.000	11.000	
ETHYLBENZENE	UG/KG	0/10	10	0/10			5.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/10	10	0/10			7.000	28.000	
STYRENE	UG/KG	0/10	10	0/10			5.000	11.000	
TETRACHLOROETHENE	UG/KG	0/10	10	0/10			5.000	11.000	
TOLUENE	UG/KG	1/10	10	1/10	1.000-1.000	1.00	5.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/10	10	0/10			5.000	11.000	
TRICHLOROETHENE	UG/KG	0/10	10	0/10			5.000	11.000	
VINYL ACETATE	UG/KG	0/10	10	0/10			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/10	10	0/10			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/10	10	0/10			5.000	11.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/9	9	0/9			6.000	11.000	
2-BUTANONE	UG/KG	0/6	6	0/6			6.000	11.000	
2-HEXANONE	UG/KG	0/9	9	0/9			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	3/9	9	3/9	2.000-7.000	4.33	11.000	16.000	
ACETONE	UG/KG	3/9	9	3/9	11.000-18.000	14.67	11.000	49.000	
BENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
BROMOFORM	UG/KG	0/9	9	0/9			6.000	11.000	
BROMOMETHANE	UG/KG	0/9	9	0/9			11.000	11.000	
CARBON DISULFIDE	UG/KG	7/9	9	7/9	1.000-44.000	9.14	6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/9	9	0/9			6.000	11.000	
CHLOROBENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
CHLOROETHANE	UG/KG	0/9	9	0/9			11.000	11.000	
CHLOROFORM	UG/KG	0/9	9	0/9			6.000	11.000	
CHLOROMETHANE	UG/KG	0/9	9	0/9			11.000	11.000	

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			6.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
ETHYLBENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
METHYLENE CHLORIDE	UG/KG	1/9	9	1/9	25.000-25.000	25.00	7.000	21.000	
STYRENE	UG/KG	0/9	9	0/9			6.000	11.000	
TETRACHLOROETHENE	UG/KG	0/9	9	0/9			6.000	11.000	
TOLUENE	UG/KG	0/9	9	0/9			6.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			6.000	11.000	
TRICHLOROETHENE	UG/KG	0/9	9	0/9			6.000	11.000	
VINYL ACETATE	UG/KG	0/9	9	0/9			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/9	9	0/9			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/9	9	0/9			6.000	11.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/9	9	0/9			6.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/9	9	0/9			6.000	11.000	
2-BUTANONE	UG/KG	2/8	8	2/8	11.000-17.000	14.00	6.000	12.000	
2-HEXANONE	UG/KG	0/9	9	0/9			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	5/9	9	5/9	3.000-340.000	73.60	11.000	11.000	
ACETONE	UG/KG	7/9	9	7/9	18.000-50.000	26.57	11.000	47.000	
BENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
BROMOFORM	UG/KG	0/9	9	0/9			6.000	11.000	
BROMOMETHANE	UG/KG	0/9	9	0/9			11.000	12.000	
CARBON DISULFIDE	UG/KG	8/9	9	8/9	1.000-69.000	14.38	6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/9	9	0/9			6.000	11.000	
CHLOROBENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
CHLOROETHANE	UG/KG	0/9	9	0/9			11.000	12.000	
CHLOROFORM	UG/KG	1/9	9	1/9	5.000-5.000	5.00	6.000	11.000	
CHLOROMETHANE	UG/KG	0/9	9	0/9			11.000	12.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			6.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/9	9	0/9			6.000	11.000	
ETHYLBENZENE	UG/KG	0/9	9	0/9			6.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/9	9	0/9			11.000	20.000	
STYRENE	UG/KG	0/9	9	0/9			6.000	11.000	
TETRACHLOROETHENE	UG/KG	0/9	9	0/9			6.000	11.000	
TOLUENE	UG/KG	1/9	9	1/9	1.000-1.000	1.00	6.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			6.000	11.000	
TRICHLOROETHENE	UG/KG	1/9	9	1/9	2.000-2.000	2.00	6.000	11.000	
VINYL ACETATE	UG/KG	0/9	9	0/9			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/9	9	0/9			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/9	9	0/9			6.000	11.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 20 - 9999 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			12.000	12.000	
2-BUTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
2-HEXANONE	UG/KG	0/1	1	0/1			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	1/1	1	1/1	28.000-28.000	28.00	12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOFORM	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	1/1	1	1/1	2.000-2.000	2.00	12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 20 - 9999 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			13.000	13.000	
STYRENE	UG/KG	0/1	1	0/1			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
TOLUENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			900.000	900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			900.000	900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			370.000	370.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			900.000	900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			370.000	370.000	
3-NITROANILINE	NONE	0/1	1	0/1			900.000	900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			900.000	900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			900.000	900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			900.000	900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			370.000	370.000	
ANTHRACENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1800.000	1800.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
CARBAZOLE	UG/KG	0/1	1	0/1			370.000	370.000	
CHRYSENE	UG/KG	0/1	1	0/1			370.000	370.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			370.000	370.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			370.000	370.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
FLUORENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			370.000	370.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			370.000	370.000	
ISOPHORONE	UG/KG	0/1	1	0/1			370.000	370.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			370.000	370.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			370.000	370.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
NITROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			370.000	370.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			900.000	900.000	
PHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
PYRENE	UG/KG	0/1	1	0/1			370.000	370.000	

05/24/94

000406

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			760.000	760.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

000407

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			380.000	380.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			920.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			920.000	2000.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			380.000	400.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			380.000	400.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			920.000	2000.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	4	0/4			380.000	810.000	
3-NITROANILINE	NONE	0/4	4	0/4			920.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			920.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			380.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	

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000410

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			380.000	400.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
4-NITROANILINE	UG/KG	0/4	4	0/4			920.000	2000.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			920.000	2000.000	
ACENAPHTHENE	UG/KG	0/4	4	0/4			380.000	400.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			380.000	400.000	
ANTHRACENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(A)PYRENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			1800.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			380.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			380.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			380.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			380.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/4	4	2/4	170.000-320.000	245.00	380.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/4	4	0/4			380.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	

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000411

5699

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	4	0/4			380.000	400.000	
DIBENZOFURAN	UG/KG	0/4	4	0/4			380.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	400.000	
FLUORENE	UG/KG	0/4	4	0/4			380.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			380.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			380.000	400.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			380.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	4	0/4			380.000	400.000	
ISOPHORONE	UG/KG	0/4	4	0/4			380.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			380.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			380.000	400.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			380.000	400.000	
NITROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
P-CHLOROANILINE	UG/KG	0/4	4	0/4			380.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
PHENANTHRENE	UG/KG	0/4	4	0/4			920.000	2000.000	
PHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
PYRENE	UG/KG	0/4	4	0/4			380.000	400.000	

05/24/94

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			370.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			370.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			370.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			370.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			910.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			370.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			370.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			370.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			910.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			370.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			370.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			370.000	400.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			370.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			370.000	400.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			370.000	400.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			910.000	1900.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			370.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			370.000	800.000	
3-NITROANILINE	NONE	0/2	2	0/2			910.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			910.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			370.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			370.000	400.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			370.000	400.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			370.000	400.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			910.000	1900.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			910.000	1900.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			370.000	400.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			370.000	400.000	
ANTHRACENE	UG/KG	0/2	2	0/2			370.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			370.000	400.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			370.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			370.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			370.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			370.000	400.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			1800.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			370.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			370.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			370.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			370.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/2	2	1/2	530.000-530.000	530.00	400.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			370.000	400.000	
CARBAZOLE	UG/KG	0/1	1	0/1			370.000	370.000	
CHRYSENE	UG/KG	0/2	2	0/2			370.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			370.000	400.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			370.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			370.000	400.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			370.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			370.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			370.000	400.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			370.000	400.000	
FLUORENE	UG/KG	0/2	2	0/2			370.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			370.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			370.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			370.000	400.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			370.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			370.000	400.000	
ISOPHORONE	UG/KG	0/2	2	0/2			370.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			370.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			370.000	400.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			370.000	400.000	
NITROBENZENE	UG/KG	0/2	2	0/2			370.000	400.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			370.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			910.000	1900.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			370.000	400.000	
PHENOL	UG/KG	0/2	2	0/2			370.000	400.000	
PYRENE	UG/KG	0/2	2	0/2			370.000	400.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			760.000	760.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			920.000	920.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			920.000	920.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			920.000	920.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			380.000	380.000	
3-NITROANILINE	NONE	0/2	2	0/2			920.000	920.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			920.000	920.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			920.000	920.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			920.000	920.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			380.000	380.000	
ANTHRACENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			380.000	380.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			1800.000	1800.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
CARBAZOLE	UG/KG	0/2	2	0/2			380.000	380.000	
CHRYSENE	UG/KG	0/2	2	0/2			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	380.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	380.000	
FLUORENE	UG/KG	0/2	2	0/2			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			380.000	380.000	
ISOPHORONE	UG/KG	0/2	2	0/2			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			380.000	380.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			380.000	380.000	
NITROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			920.000	920.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			380.000	380.000	
PHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
PYRENE	UG/KG	0/2	2	0/2			380.000	380.000	

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			920.000	920.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			920.000	920.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			920.000	920.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			380.000	380.000	
3-NITROANILINE	NONE	0/1	1	0/1			920.000	920.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			920.000	920.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			920.000	920.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			920.000	920.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1800.000	1800.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	810.000-810.000	810.00	6.000	11.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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000423

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			920.000	920.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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000424

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			870.000	870.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			870.000	870.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			360.000	360.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			360.000	360.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			360.000	360.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			360.000	360.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			870.000	870.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			360.000	360.000	
3-NITROANILINE	NONE	0/1	1	0/1			870.000	870.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			870.000	870.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			360.000	360.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			360.000	360.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			870.000	870.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			870.000	870.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			360.000	360.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			360.000	360.000	
ANTHRACENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			360.000	360.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			360.000	360.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			1700.000	1700.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			360.000	360.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			360.000	360.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
CARBAZOLE	UG/KG	0/1	1	0/1			360.000	360.000	
CHRYSENE	UG/KG	0/1	1	0/1			360.000	360.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			360.000	360.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			360.000	360.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			360.000	360.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			360.000	360.000	
FLUORENE	UG/KG	0/1	1	0/1			360.000	360.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			360.000	360.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			360.000	360.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			360.000	360.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			360.000	360.000	
ISOPHORONE	UG/KG	0/1	1	0/1			360.000	360.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			360.000	360.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			360.000	360.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			360.000	360.000	
NITROBENZENE	UG/KG	0/1	1	0/1			360.000	360.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			360.000	360.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			870.000	870.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			360.000	360.000	
PHENOL	UG/KG	0/1	1	0/1			360.000	360.000	
PYRENE	UG/KG	0/1	1	0/1			360.000	360.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			410.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			980.000	980.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			410.000	410.000	
3-NITROANILINE	NONE	0/1	1	0/1			980.000	980.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			980.000	980.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			410.000	410.000	
ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			2000.000	2000.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
CARBAZOLE	UG/KG	0/1	1	0/1			410.000	410.000	
CHRYSENE	UG/KG	0/1	1	0/1			410.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			410.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
FLUORENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			410.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	
ISOPHORONE	UG/KG	0/1	1	0/1			410.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			410.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			410.000	410.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
NITROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			410.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			410.000	410.000	
PHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.700	3.700	
4,4'-DDE	UG/KG	0/1	1	0/1			3.700	3.700	
4,4'-DDT	UG/KG	0/1	1	0/1			3.700	3.700	
ALDRIN	UG/KG	0/1	1	0/1			1.900	1.900	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	1.900	
AROCLOR-1016	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			76.000	76.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			37.000	37.000	
BETA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
DELTA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
DIELDRIN	UG/KG	0/1	1	0/1			3.700	3.700	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.700	3.700	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.700	3.700	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			1.900	1.900	
ENDRIN	UG/KG	0/1	1	0/1			3.700	3.700	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.700	3.700	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.700	3.700	

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000441

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.900	1.900	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	1.900	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.900	1.900	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.900	1.900	
METHOXYCHLOR	UG/KG	0/1	1	0/1			19.000	19.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	190.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			19.000	19.000	
4,4'-DDE	UG/KG	0/1	1	0/1			19.000	19.000	
4,4'-DDT	UG/KG	0/1	1	0/1			19.000	19.000	
ALDRIN	UG/KG	0/1	1	0/1			9.300	9.300	
ALPHA-BHC	UG/KG	0/1	1	0/1			9.300	9.300	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			190.000	190.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			190.000	190.000	
BETA-BHC	UG/KG	0/1	1	0/1			9.300	9.300	
DELTA-BHC	UG/KG	0/1	1	0/1			9.300	9.300	
DIELDRIN	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			9.300	9.300	
ENDRIN	UG/KG	0/1	1	0/1			19.000	19.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			19.000	19.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			9.300	9.300	

0008433

5699

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: .5 - 1 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			93.000	93.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			9.300	9.300	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			9.300	9.300	
METHOXYCHLOR	UG/KG	0/1	1	0/1			93.000	93.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	190.000	

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/4	4	0/4			3.800	76.000	
4,4'-DDE	UG/KG	0/4	4	0/4			3.800	76.000	
4,4'-DDT	UG/KG	0/4	4	0/4			3.800	76.000	
ALDRIN	UG/KG	0/4	4	0/4			2.000	38.000	
ALPHA-BHC	UG/KG	0/4	4	0/4			2.000	38.000	
ALPHA-CHLORDANE	UG/KG	0/4	4	0/4			2.000	380.000	
AROCLOR-1016	UG/KG	0/4	4	0/4			38.000	380.000	
AROCLOR-1221	UG/KG	0/4	4	0/4			78.000	380.000	
AROCLOR-1232	UG/KG	0/4	4	0/4			38.000	380.000	
AROCLOR-1242	UG/KG	0/4	4	0/4			38.000	380.000	
AROCLOR-1248	UG/KG	0/4	4	0/4			38.000	380.000	
AROCLOR-1254	UG/KG	1/4	4	1/4	40.000-40.000	40.00	38.000	760.000	
AROCLOR-1260	UG/KG	0/4	4	0/4			38.000	760.000	
BETA-BHC	UG/KG	0/4	4	0/4			2.000	38.000	
DELTA-BHC	UG/KG	0/4	4	0/4			2.000	38.000	
DIELDRIN	UG/KG	0/4	4	0/4			3.800	76.000	
ENDOSULFAN II	UG/KG	0/4	4	0/4			3.800	76.000	
ENDOSULFAN SULFATE	UG/KG	0/4	4	0/4			3.800	76.000	
ENDOSULFAN-I	UG/KG	0/4	4	0/4			2.000	38.000	
ENDRIN	UG/KG	0/4	4	0/4			3.800	76.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/4	4	0/4			3.800	76.000	

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000435

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AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/4	4	0/4			2.000	38.000	
GAMMA-CHLORDANE	UG/KG	0/4	4	0/4			2.000	380.000	
HEPTACHLOR	UG/KG	0/4	4	0/4			2.000	38.000	
HEPTACHLOR EPOXIDE	UG/KG	0/4	4	0/4			2.000	38.000	
METHOXYCHLOR	UG/KG	0/4	4	0/4			20.000	380.000	
TOXAPHENE	UG/KG	0/4	4	0/4			170.000	760.000	

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.700	19.000	
4,4'-DDE	UG/KG	0/2	2	0/2			3.700	19.000	
4,4'-DDT	UG/KG	0/2	2	0/2			3.700	19.000	
ALDRIN	UG/KG	0/2	2	0/2			1.900	9.700	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.900	9.700	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	97.000	
AROCLOR-1016	UG/KG	0/2	2	0/2			37.000	97.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			74.000	97.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			37.000	97.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			37.000	97.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			37.000	97.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			37.000	190.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			37.000	190.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.900	9.700	
DELTA-BHC	UG/KG	0/2	2	0/2			1.900	9.700	
DIELDRIN	UG/KG	0/2	2	0/2			3.700	19.000	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.700	19.000	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.700	19.000	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.900	9.700	
ENDRIN	UG/KG	0/2	2	0/2			3.700	19.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.700	3.700	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.700	19.000	

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000437

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.900	9.700	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	97.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.900	9.700	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.900	9.700	
METHOXYCHLOR	UG/KG	0/2	2	0/2			19.000	97.000	
TOXAPHENE	UG/KG	0/2	2	0/2			190.000	190.000	

000438

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			19.000	19.000	
4,4'-DDE	UG/KG	0/1	1	0/1			19.000	19.000	
4,4'-DDT	UG/KG	0/1	1	0/1			19.000	19.000	
ALDRIN	UG/KG	0/1	1	0/1			9.300	9.300	
ALPHA-BHC	UG/KG	0/1	1	0/1			9.300	9.300	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			93.000	93.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			190.000	190.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			190.000	190.000	
BETA-BHC	UG/KG	0/1	1	0/1			9.300	9.300	
DELTA-BHC	UG/KG	0/1	1	0/1			9.300	9.300	
DIELDRIN	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			9.300	9.300	
ENDRIN	UG/KG	0/1	1	0/1			19.000	19.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			19.000	19.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			9.300	9.300	

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			93.000	93.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			9.300	9.300	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			9.300	9.300	
METHOXYCHLOR	UG/KG	0/1	1	0/1			93.000	93.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	190.000	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.700	3.800	
4,4'-DDE	UG/KG	0/2	2	0/2			3.700	3.800	
4,4'-DDT	UG/KG	0/2	2	0/2			3.700	3.800	
ALDRIN	UG/KG	0/2	2	0/2			1.900	2.000	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.900	2.000	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	2.000	
AROCLOR-1016	UG/KG	0/2	2	0/2			37.000	38.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			76.000	78.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			37.000	38.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			37.000	38.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			37.000	38.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			37.000	38.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			37.000	38.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.900	2.000	
DELTA-BHC	UG/KG	0/2	2	0/2			1.900	2.000	
DIELDRIN	UG/KG	0/2	2	0/2			3.700	3.800	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.700	3.800	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.700	3.800	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.900	2.000	
ENDRIN	UG/KG	0/2	2	0/2			3.700	3.800	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.700	3.800	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.700	3.800	

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.900	2.000	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	2.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.900	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.900	2.000	
METHOXYCHLOR	UG/KG	0/2	2	0/2			19.000	20.000	
TOXAPHENE	UG/KG	0/2	2	0/2			190.000	200.000	

000442

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.800	3.800	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			78.000	78.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			38.000	38.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.000	2.000	
ENDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.800	3.800	

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5699

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

000444

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AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.500	3.500	
4,4'-DDE	UG/KG	0/1	1	0/1			3.500	3.500	
4,4'-DDT	UG/KG	0/1	1	0/1			3.500	3.500	
ALDRIN	UG/KG	0/1	1	0/1			1.800	1.800	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.800	1.800	
AROCLOR-1016	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			72.000	72.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			35.000	35.000	
BETA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
DELTA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
DIELDRIN	UG/KG	0/1	1	0/1			3.500	3.500	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.500	3.500	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.500	3.500	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			1.800	1.800	
ENDRIN	UG/KG	0/1	1	0/1			3.500	3.500	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.500	3.500	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.500	3.500	

05/24/94

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.800	1.800	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.800	1.800	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.800	1.800	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.800	1.800	
METHOXYCHLOR	UG/KG	0/1	1	0/1			18.000	18.000	
TOXAPHENE	UG/KG	0/1	1	0/1			180.000	180.000	

000446

05/24/94

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 20 - 9999 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			4.000	4.000	
4,4'-DDE	UG/KG	0/1	1	0/1			4.000	4.000	
4,4'-DDT	UG/KG	0/1	1	0/1			4.000	4.000	
ALDRIN	UG/KG	0/1	1	0/1			2.100	2.100	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.100	2.100	
AROCLOR-1016	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			81.000	81.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			40.000	40.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
DELTA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
DIELDRIN	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.100	2.100	
ENDRIN	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			4.000	4.000	

000147

AREA: Plant 9 Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 20 - 9999 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.100	2.100	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.100	2.100	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.100	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.100	2.100	
METHOXYCHLOR	UG/KG	0/1	1	0/1			21.000	21.000	
TOXAPHENE	UG/KG	0/1	1	0/1			210.000	210.000	

000448

05/24/94

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - [illegible].5 FEET									
URANIUM-238	PCI/G	5/5	5	4/5	0.300-87.900	43.54	11.000	11.000	1.24
URANIUM, TOTAL	MG/KG	9/9	0	8/9	1.400-217.000	88.16	11.000	11.000	3.73
URANIUM-234	PCI/G	5/5	5	4/5	0.400-100.000	47.84	11.000	11.000	1.24
THORIUM-230	PCI/G	3/4	4	2/4	0.400-82.100	28.67	0.600	0.600	1.97
RADIUM-226	PCI/G	4/5	5	0/5	0.300-1.200	0.73	0.300	0.300	1.42
URANIUM-235/236	PCI/G	3/5	5	3/5	2.500-10.100	5.77	0.100	0.600	0.156
THORIUM-232	PCI/G	4/4	4	3/4	0.400-84.900	22.73	11.000	11.000	1.36
THORIUM, TOTAL	MG/KG	4/8	0	3/8	3.648-766.000	205.16	23.000	23.000	12.4
RADIUM-228	PCI/G	4/5	5	3/5	0.700-27.900	9.05	0.500	0.500	1.25
THORIUM-228	PCI/G	4/4	4	3/4	0.300-5.220	2.58	11.000	11.000	1.43
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/3	3	1/3	1.000-1.000	1.00	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/4	4	1/4	1.600-1.600	1.60	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	1/4	4	0/4	0.500-0.500	0.50	0.200	0.200	0.711

05/24/94

AREA: Plant 9 Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	5/5	5	5/5	4.600-74.400	22.03	6.000	6.000	1.24
URANIUM, TOTAL	MG/KG	4/4	4	4/4	17.630-209.000	65.91	6.000	6.000	3.73
URANIUM-234	PCI/G	5/5	5	5/5	4.600-83.800	24.54	6.000	6.000	1.24
THORIUM-230	PCI/G	2/4	4	1/4	1.810-2.000	1.91	0.600	0.600	1.97
RADIUM-226	PCI/G	4/4	4	0/4	0.460-0.940	0.75	6.000	6.000	1.42
URANIUM-235/236	PCI/G	3/5	5	3/5	0.608-10.700	4.20	0.600	0.600	0.156
THORIUM-232	PCI/G	3/4	4	0/4	0.700-1.300	1.02	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	5/5	0	1/5	2.660-43.000	14.83	6.000	6.000	12.4
RADIUM-228	PCI/G	4/4	4	0/4	0.570-1.250	0.91	6.000	6.000	1.25
THORIUM-228	PCI/G	4/4	4	1/4	0.655-1.520	1.12	6.000	6.000	1.43
NEPTUNIUM-237	PCI/G	1/5	5	1/5	0.710-0.710	0.71	0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/5	5	0/5			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/5	5	0/5			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/4	4	2/4	0.900-1.080	0.99	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/5	5	0/5			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	4	0/4			0.200	0.200	0.711

000450

05/24/94

D.2.7 SEWAGE TREATMENT PLANT AREA

The FEMP sewage treatment plant is located on the eastern edge of the FEMP property (see Figure D.2-10). The sewage treatment plant became operational in 1952 for the treatment of FEMP sanitary wastewater. The system was later restructured to receive both sanitary- and process-related wastewater. The practice of employing the sewage treatment plant to treat process-related wastewater was discontinued with the installation and start-up of the biodenitrification effluent treatment system. An abandoned-in-place, solid waste incinerator is also located at the sewage treatment plant. The incinerator operated from 1954 until 1979, burning both contaminated and uncontaminated combustible trash. The sewage treatment plant, associated facilities, and the abandoned incinerator are contained within a 6-foot chain link fence. Table D-1 summarizes the parameters known to be present or used in the sewage treatment plant area.

Removal Action No. 14 was conducted in 1993 on the contaminated soil adjacent to the sewage treatment plant incinerator. Small, discrete areas containing relatively high levels of uranium contamination were excavated within the range of 6 to 24 inches below ground surface. The removal criteria were areas of activity greater than 100 pCi/g inside the sewage treatment plant fenced-in area and greater than 300 pCi/g outside the fence, based on field SPA-3 instrument screening measurements. In addition to the on-property excavations, it was also deemed necessary to remove soil from adjacent off-property locations that exhibited total uranium activities greater than 35 pCi/g.

Once the on and off-property excavations had been completed, post-excavation soil sampling was conducted within each of the excavated areas to verify that all uranium-contaminated material had been satisfactorily removed. Figure D.2-11 presents the locations of the on-property excavations and post-excavation verification sampling results. Approximately 1374 cubic yards of soil were removed from within the fenced area of the sewage treatment plant.

In addition to the above-mentioned activities, other removal actions have been implemented in the vicinity of the sewage treatment plant. Additional on-property excavations, including the thorium-230 soil removal action, took place in November 1993. An additional off-property walkover survey was conducted in July 1993, which led to off-property vegetation and soil removal in February 1994. The final report for this activity is due for submittal to EPA in November 1994.

One RCRA HWMU, the sludge drying beds, is located within the sewage treatment plant area.

Initial soil sampling in the sewage treatment plant area was performed as part of the site-wide RI/FS program. Samples were collected from 19 soil sample locations within the boundary of the sewage treatment plant area. As part of Removal Action No. 14, an additional 50 surface and subsurface samples were collected in order to delineate the areas requiring excavation.

Surface Soil

Surface soil sampling locations for samples collected in and near the sewage treatment plant area are shown in Figure D.2-10. The sample concentrations were compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-7 presents the distribution of constituents with respect to the background value for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Prior to the removal action, a number of radionuclide levels greatly exceeded the background values within the 0- to 5.0-foot depth interval in the area of the sewage treatment plant. Levels of uranium-238, total uranium, uranium-234, thorium-230, radium-226, uranium-235/236, thorium-232, total thorium, radium-228, and thorium-228 were significantly elevated above background levels throughout the surface soil depth intervals. Technetium-99 was also detected throughout the surface soil intervals, but no background levels were recorded. The maximum detection for total uranium in the surface soil was 7572 mg/kg, detected at the 0- to 0.5-foot depth interval. Radium-224, actinium-227, and strontium-90 were detected at activities above five times background in the 0- to 0.5-foot depth interval only. Protactinium-231, thorium-234, neptunium-237, plutonium-239/240, plutonium-238, and ruthenium-106, for which no background values are available, were also detected within the 0- to 0.5-foot interval.

A number of inorganic compounds were detected in elevated concentrations within the top 1.5 feet of soil in the sewage treatment plant area. Only two of these compounds, calcium and magnesium, were consistently detected at levels greater than two times background.

Methylene chloride and toluene were the only volatile organic compounds detected in the surface soil of the sewage treatment plant area.

Seventeen semivolatile organic compounds, mostly PAHs, were detected in the top 6 inches of soil, however, only di-n-butyl phthalate, fluoranthene, and pyrene were detected in the 0.5- to 1.0-foot depth interval. No semivolatiles were detected in the 1.0- to 1.5-foot depth interval.

2,3,7,8-tetrachlorodibenzo-p-dioxin was not detected in any surface soil samples from all three depth intervals. Aroclor-1254, a PCB, was detected in one sample in the 0.0- to 0.5-foot depth interval at 120 μg/kg.

Subsurface Soil

Subsurface soil sampling locations at the sewage treatment plant area typically coincide with the general locations of the surface soil sampling shown in Figure D.2-10. The maximum sample concentration was compared to background for each constituent. Table D.2-7 presents the distribution of constituents with respect to the background for each sample depth interval.

The only radionuclides in this area to display values greater than twice background throughout the subsurface soil were the three uranium isotopes, total uranium, and strontium-90. In addition, elevated levels of thorium-232, total thorium, radium-228, thorium-228, technetium-99 and cesium-137 were detected at the 5.0- to 10.0-foot depth interval. No background levels of technetium-99 and cesium-137 were recorded. However, the detected levels of the majority of these constituents decreased at greater depths.

No significant inorganic concentrations were detected in the subsurface soil of the sewage treatment plant area. However, only the 1.5- to 3.0-foot depth interval was analyzed for inorganic compounds.

No volatile or semivolatile organic compounds or pesticides/PCBs were detected in the subsurface soil of the sewage treatment plant area.

Conclusion

Radionuclide contamination is the primary concern for the sewage treatment plant area. The data indicates that the uranium and thorium levels at the sewage treatment plant were significantly elevated in the surface soil prior to the removal action and decreased in concentration throughout the subsurface soil. Contaminated soil has been removed from the area to defined levels of uranium and

of thorium-230. The inorganic and volatile organic constituents present in the soil are not judged a significant problem in the sewage treatment plant area at the FEMP.

Suspected sources of radionuclide contamination located in the sewage treatment plant area include the effluent line (25B), the two clarifier basins (25G), the sludge drying beds (25F), the trickling filters (25H), and the incinerator (39D). The incinerator is believed to be the main contributor of radionuclide contamination to the surface soil in the area and the sludge drying beds are most likely the main source of radionuclide contamination in the subsurface soils (1.5 to 5 feet).

TABLE D.2-7
SEWAGE TREATMENT PLANT
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Thorium-234	Uranium-234	Thorium-230	Protactinium-231	Actinium - 227	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Radium-224	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																						
95 % Background Value		1.24	3.77 ug/g	NA	1.24	1.97	ND	0.09	1.42	0.156	1.36	12.4 ug/g	1.25	1.47	0.900	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	45	■	■	X	■	■	X	■	■	■	■	■	■	■	■	-	X	X	■	X	-	●
0.5 - 1	11	■	■		■	■			■	■	●	●	■	●		-	-	-	-	X	-	-
1 - 1.5	9	■	■		■	●			●	■	●	●	○	●		-	-	-	-	X	-	-
Subsurface Soil:																						
95 % Background Value		1.23	3.73 ug/g	NA	1.11	1.91	ND	0.105	1.47	0.138	1.25	11.4 ug/g	1.31	1.38	1.01	ND	ND	ND	0.436	ND	ND	ND
1.5 - 3	2	■	■		■	■			●	■	●	●	●	●		-	-	-	■	X	-	-
3 - 5	1	●	■		●	○			○	-	●	●	○	●		-	-	-		-	-	-
5 - 10	3	■	■		■	●			-	■	●	●	●	●		-	-	-	■	X	-	X
10 - 15	3	■	■		■	●			○	■		●	○	○		-	-	-	■	-	-	-
15 - 20	1	■	■		■	●			○	■		○	○	●		-	-	-	●	-	-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4,340	16.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	14	●	X	○	●	●	-	■	●	●	●	■	●	■	●	●	○	X	●	●	-	■	X	●	○	●	■
0.5 - 1	4	●	-	○	●	●	-	■	●	●	●	-	●	○	■	○	○	-	●	■	-	●	X	■	-	●	●
1 - 1.5	4	■	-	○	●	■	-	■	●	○	●	●	●	●	■	○	○	-	●	■	-	●	-	■	-	●	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150000	20.7	16.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1690	ND	285	0.49	37.8	82
1.5 - 3	4	●	-	○	●	●	-	○	●	○	●	-	●	●	○	○	○	-	○	●	-	●	-	○	-	●	●
3 - 5	0																										
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-7
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)							SEMIVOLATILES (ug/kg)																			PESTICIDES/PCBs (ug/kg)									
	Number of Samples	Methylene chloride	Toluene					Number of Samples	2-Methylnaphthalene	Acenaphthylene	Anthracene	Benzoic acid	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Di-n-butyl phthalate	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Number of Samples	Aroclor-1254								
Surface Soil:																																			
0 - 0.5	5	X	X					3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2	X								
0.5 - 1	4	-	X					4	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	X	0	-								
1 - 1.5	4	-	-					4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0									
Subsurface Soil:																																			
1.5 - 3	4	-	-					4	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	0									
3 - 5	0							0																			0									
5 - 10	0							0																			0									
10 - 15	0							0																			0									
15 - 20	0							0																			0									

"Blank" - Compound was not analyzed.

X Detection where background level not recorded.

- Analyzed and not detected.

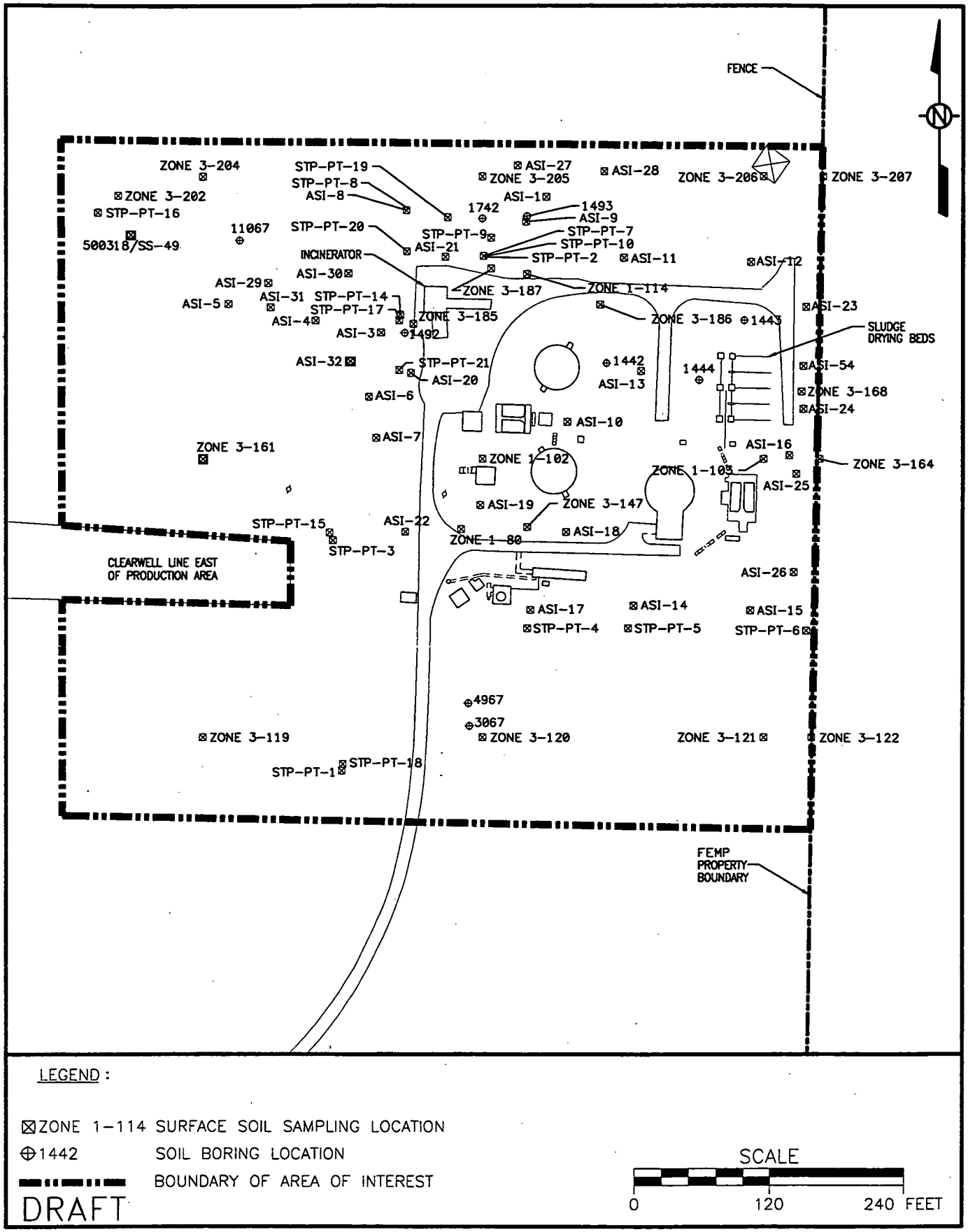

FIGURE D.2-10. SEWAGE TREATMENT PLANT AREA

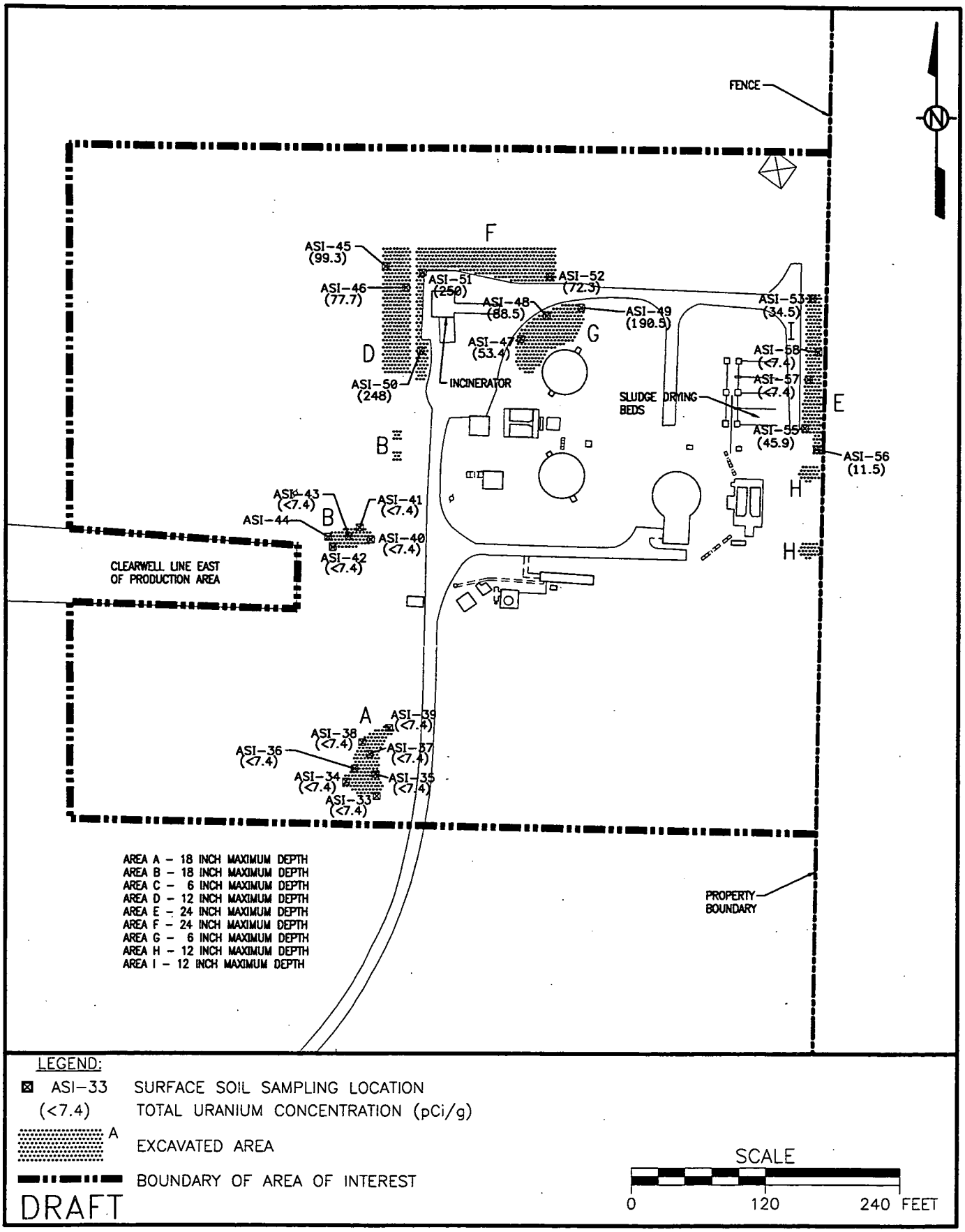

FIGURE D.2-11. REMOVAL ACTION NO. 14
POST-EXCAVATION SAMPLING

Sewage Treatment Plant Area

Summary Soil Statistics

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	66/66	23	66/66	4.100-1477.000	87.78			1.24
URANIUM, TOTAL	MG/KG	125/140	38	125/140	7.260-7572.000	301.42	11.000	11.000	3.73
URANIUM-234	PCI/G	63/63	20	63/63	3.700-1627.000	81.69			1.24
THORIUM-230	PCI/G	70/84	41	59/84	1.200-806.000	29.57	3.800	64.000	1.97
RADIUM-226	PCI/G	67/68	34	38/68	0.730-188.000	7.64	0.300	0.300	1.42
URANIUM-235/236	PCI/G	76/83	40	76/83	0.180-145.000	9.05	0.100	0.600	0.156
THORIUM-232	PCI/G	64/66	23	19/66	0.600-61.900	2.40	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	65/67	6	22/67	5.472-564.571	21.91	5.472	5.472	12.4
RADIUM-228	PCI/G	62/68	34	31/68	0.600-16.900	1.91	0.500	2.600	1.25
THORIUM-228	PCI/G	63/66	23	34/66	0.700-24.800	2.36	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/27	21	0/27			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/29	23	1/29	1.500-1.500	1.50	0.600	0.600	NA
PLUTONIUM-238	PCI/G	1/29	23	1/29	1.500-1.500	1.50	0.600	0.600	NA
STRONTIUM-90	PCI/G	21/29	23	21/29	0.600-7.700	1.84	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	6/25	18	6/25	1.500-228.000	44.42	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/40	34	0/40			1.000	6.600	NA
CESIUM-137	PCI/G	29/40	34	6/40	0.292-1.100	0.59	0.200	0.600	0.711
GROSS ALPHA	PCI/G	1/1	0	1/1	94.700-94.700	94.70			
GROSS BETA	PCI/G	1/1	0	1/1	69.000-69.000	69.00			
ACTINIUM-227	PCI/G	4/18	18	4/18	0.650-3.952	2.15	0.100	1.600	0.09
PROTACTINIUM-231	PCI/G	1/18	18	1/18	5.040-5.040	5.04	0.700	9.000	ND
RADIUM-224	PCI/G	18/18	18	17/18	0.313-5.357	2.08			0.900

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
THORIUM-234		18/18	18	18/18	2.050-2289.000	258.96			NA

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	16/16	2	16/16	3.290-790.000	106.04			1.24
URANIUM, TOTAL	MG/KG	32/35	3	32/35	9.800-2240.000	157.53	11.000	11.000	3.73
URANIUM-234	PCI/G	16/16	2	16/16	3.340-808.000	96.34			1.24
THORIUM-230	PCI/G	16/16	2	11/16	1.050-359.000	26.61			1.97
RADIUM-226	PCI/G	13/13	2	9/13	0.994-12.400	3.05			1.42
URANIUM-235/236	PCI/G	15/16	2	15/16	0.190-41.500	5.73	0.100	0.100	0.156
THORIUM-232	PCI/G	16/16	2	2/16	0.550-6.100	1.32			1.36
THORIUM, TOTAL	MG/KG	16/16	0	2/16	5.016-55.651	12.00			12.4
RADIUM-228	PCI/G	13/13	2	2/13	0.774-7.200	1.51			1.25
THORIUM-228	PCI/G	16/16	2	9/16	0.790-5.700	2.21			1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	2/2	2	2/2	4.300-56.900	30.60			NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.100	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	0.711

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	14/14	2	13/14	1.170-500.000	39.16			1.24
URANIUM, TOTAL	MG/KG	20/33	3	19/33	3.600-976.000	75.87	11.000	11.000	3.73
URANIUM-234	PCI/G	14/14	2	13/14	1.210-516.000	40.33			1.24
THORIUM-230	PCI/G	14/14	2	3/14	1.120-4.400	1.81			1.97
RADIUM-226	PCI/G	11/11	2	2/11	0.890-3.100	1.40			1.42
URANIUM-235/236	PCI/G	8/14	2	4/14	0.110-23.300	3.14	0.100	0.600	0.156
THORIUM-232	PCI/G	14/14	2	1/14	0.670-1.400	1.00			1.36
THORIUM, TOTAL	MG/KG	14/14	0	1/14	6.111-12.768	9.13			12.4
RADIUM-228	PCI/G	11/11	2	0/11	0.600-1.190	0.97			1.25
THORIUM-228	PCI/G	14/14	2	6/14	0.630-3.430	1.76			1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/2	2	1/2	44.200-44.200	44.20	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	0.711

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	13/13	2	12/13	0.920-32.700	6.41			1.12
URANIUM, TOTAL	MG/KG	19/46	2	17/46	2.700-310.000	60.36	11.000	11.000	3.69
URANIUM-234	PCI/G	13/13	2	12/13	0.970-32.700	6.15			1.04
THORIUM-230	PCI/G	13/13	2	4/13	0.920-13.900	2.72			1.91
RADIUM-226	PCI/G	9/9	1	1/9	0.921-1.650	1.25			1.47
URANIUM-235/236	PCI/G	5/13	2	5/13	0.160-1.860	0.76	0.100	0.600	0.150
THORIUM-232	PCI/G	13/13	2	4/13	0.600-3.210	1.20			1.26
THORIUM, TOTAL	MG/KG	13/14	2	4/14	5.472-29.000	10.95	18.000	18.000	11.1
RADIUM-228	PCI/G	9/9	1	2/9	0.577-1.460	1.14			1.31
THORIUM-228	PCI/G	13/13	2	9/13	0.950-3.890	2.29			1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/2	2	2/2	0.568-7.460	4.01			.436
TECHNETIUM-99	PCI/G	2/2	2	2/2	2.820-3.590	3.21			NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	5.590-5.590	5.59			1.12
URANIUM, TOTAL	MG/KG	6/15	3	6/15	7.000-58.000	28.15	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	5.390-5.390	5.39			1.04
THORIUM-230	PCI/G	1/1	1	0/1	1.640-1.640	1.64			1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.210-1.210	1.21			1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	1/1	1	1/1	1.340-1.340	1.34			1.26
THORIUM, TOTAL	MG/KG	1/1	1	1/1	12.100-12.100	12.10			11.1
RADIUM-228	PCI/G	1/1	1	0/1	1.080-1.080	1.08			1.31
THORIUM-228	PCI/G	1/1	1	1/1	1.830-1.830	1.83			1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	9.300-9.300	9.30			.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.100	1.100	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	3/3	3	3/3	2.130-24.400	15.28			1.12
URANIUM, TOTAL	MG/KG	2/3	2	2/3	9.000-69.600	39.30	0.100	0.100	3.69
URANIUM-234	PCI/G	3/3	3	3/3	2.310-23.200	14.30			1.04
THORIUM-230	PCI/G	3/3	3	1/3	1.530-3.430	2.28			1.91
RADIUM-226	PCI/G	0/1	1	0/1			0.300	0.300	1.47
URANIUM-235/236	PCI/G	2/3	3	2/3	1.600-4.360	2.98	0.600	0.600	0.150
THORIUM-232	PCI/G	3/3	3	1/3	0.833-1.690	1.21			1.26
THORIUM, TOTAL	MG/KG	3/4	3	1/4	7.520-15.200	10.94	18.000	18.000	11.1
RADIUM-228	PCI/G	1/1	1	1/1	1.660-1.660	1.66			1.31
THORIUM-228	PCI/G	3/3	3	1/3	1.100-1.830	1.36			1.38
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.600	0.600	NA
STRONTIUM-90	PCI/G	3/3	3	3/3	1.680-7.100	4.49			.436
TECHNETIUM-99	PCI/G	2/3	3	2/3	3.150-3.630	3.39	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	1/1	1	1/1	0.490-0.490	0.49			NA

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	3/3	3	2/3	1.010-17.600	6.64			1.12
URANIUM, TOTAL	MG/KG	5/6	5	5/6	4.680-214.000	64.54	11.000	11.000	3.69
URANIUM-234	PCI/G	3/3	3	2/3	0.928-17.000	6.47			1.04
THORIUM-230	PCI/G	3/3	3	1/3	0.903-3.190	1.94			1.91
RADIUM-226	PCI/G	2/2	2	0/2	0.981-1.310	1.15			1.47
URANIUM-235/236	PCI/G	1/3	3	1/3	1.220-1.220	1.22	0.600	0.600	0.150
THORIUM-232	PCI/G	3/3	3	0/3	0.748-1.250	0.97			1.26
THORIUM, TOTAL	MG/KG	4/4	3	2/4	6.750-24.000	12.56			11.1
RADIUM-228	PCI/G	1/2	2	0/2	1.180-1.180	1.18	0.500	0.500	1.31
THORIUM-228	PCI/G	3/3	3	0/3	0.846-1.250	1.08			1.38
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.600	0.600	NA
STRONTIUM-90	PCI/G	3/3	3	3/3	1.740-10.100	4.61			.436
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	2/2	2	1/2	1.070-11.800	6.44			1.12
URANIUM, TOTAL	MG/KG	4/5	4	3/5	3.281-37.890	13.04	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	11.800-11.800	11.80			1.04
THORIUM-230	PCI/G	1/1	1	1/1	2.410-2.410	2.41			1.91
RADIUM-226	PCI/G	2/2	2	0/2	0.810-1.110	0.96			1.47
URANIUM-235/236	PCI/G	1/2	2	1/2	0.774-0.774	0.77	0.200	0.200	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.909-0.909	0.91			1.26
THORIUM, TOTAL	MG/KG	1/2	1	0/2	8.210-8.210	8.21	18.000	18.000	11.1
RADIUM-228	PCI/G	2/2	2	0/2	0.760-0.970	0.87			1.31
THORIUM-228	PCI/G	1/1	1	1/1	1.750-1.750	1.75			1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	1.300-1.300	1.30			.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	14/14	14	11/14	6280.000-18800.000	14848.57			11900
ANTIMONY	MG/KG	3/13	13	3/13	15.800-21.500	18.87	2.900	19.300	NA
ARSENIC	MG/KG	5/5	5	0/5	4.200-7.000	5.66			8.20
BARIUM	MG/KG	14/14	14	9/14	75.800-176.000	111.72			95.7
BERYLLIUM	MG/KG	11/14	14	9/14	0.520-1.100	0.73	0.450	1.300	0.6
CADMIUM	MG/KG	0/14	14	0/14			0.500	1.600	0.870
CALCIUM	MG/KG	14/14	14	12/14	2290.000-42800.000	14489.29			4340
CHROMIUM	MG/KG	14/14	14	13/14	11.400-24.000	19.97			15.5
COBALT	MG/KG	14/14	14	1/14	6.500-14.300	10.29			14.2
COPPER	MG/KG	11/14	14	10/14	11.400-23.800	18.06	25.200	31.900	14.1
CYANIDE	MG/KG	3/14	14	3/14	0.560-0.880	0.70	0.590	0.810	0.270
IRON	MG/KG	14/14	14	8/14	12700.000-25900.000	22264.29			21700
LEAD	MG/KG	14/14	14	10/14	12.300-570.000	86.01			26.4
MAGNESIUM	MG/KG	14/14	14	12/14	1390.000-14000.000	6331.43			2780
MANGANESE	MG/KG	14/14	14	3/14	343.000-2010.000	857.36			1350
MERCURY	MG/KG	6/14	14	0/14	0.060-0.120	0.09	0.060	0.130	0.3
MOLYBDENUM	MG/KG	1/14	14	1/14	8.500-8.500	8.50	4.600	16.100	NA
NICKEL	MG/KG	13/14	14	4/14	13.200-23.700	19.02	19.200	19.200	20.9
POTASSIUM	MG/KG	13/14	14	11/14	792.000-2080.000	1583.23	2490.000	2490.000	1230
SELENIUM	MG/KG	0/14	14	0/14			0.220	0.730	0.72
SILICON	MG/KG	14/14	14	12/14	128.000-3960.000	3090.57			1800
SILVER	MG/KG	2/14	14	2/14	1.300-1.400	1.35	0.540	2.500	NA

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	5/14	14	4/14	27.700-94.100	69.44	66.100	105.000	51.1
THALLIUM	MG/KG	2/14	14	0/14	0.250-0.470	0.36	0.220	0.820	0.58
VANADIUM	MG/KG	14/14	14	10/14	21.300-38.200	32.19			30.4
ZINC	MG/KG	14/14	14	12/14	54.700-432.000	173.42			59.6

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	4/4	4	4/4	13200.000-14900.000	13775.00			11900
ANTIMONY	MG/KG	0/4	4	0/4			13.600	14.300	NA
ARSENIC	MG/KG	1/1	1	0/1	5.100-5.100	5.10			8.20
BARIUM	MG/KG	4/4	4	2/4	87.200-106.000	96.33			95.7
BERYLLIUM	MG/KG	4/4	4	4/4	0.630-0.680	0.66			0.6
CADMIUM	MG/KG	0/4	4	0/4			1.100	1.200	0.870
CALCIUM	MG/KG	4/4	4	3/4	3220.000-74500.000	30405.00			4340
CHROMIUM	MG/KG	4/4	4	4/4	16.000-17.700	17.20			15.5
COBALT	MG/KG	4/4	4	1/4	9.300-15.800	11.58			14.2
COPPER	MG/KG	3/4	4	1/4	10.700-16.000	12.57	19.500	19.500	14.1
CYANIDE	MG/KG	0/4	4	0/4			0.570	0.600	0.270
IRON	MG/KG	4/4	4	1/4	18600.000-22200.000	19850.00			21700
LEAD	MG/KG	4/4	4	0/4	17.400-26.200	21.63			26.4
MAGNESIUM	MG/KG	4/4	4	3/4	2510.000-21300.000	9942.50			2780
MANGANESE	MG/KG	4/4	4	0/4	701.000-1090.000	915.25			1350
MERCURY	MG/KG	2/4	4	0/4	0.080-0.100	0.09	0.060	0.180	0.3
MOLYBDENUM	MG/KG	0/4	4	0/4			11.400	11.900	NA
NICKEL	MG/KG	4/4	4	1/4	12.500-24.500	17.98			20.9
POTASSIUM	MG/KG	4/4	4	2/4	899.000-2460.000	1439.75			1230
SELENIUM	MG/KG	0/4	4	0/4			0.230	0.240	0.72
SILICON	MG/KG	4/4	4	4/4	2570.000-3300.000	2937.50			1800
SILVER	MG/KG	1/4	4	1/4	1.800-1.800	1.80	0.910	0.950	NA

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000471

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
SODIUM	MG/KG	3/4	4	3/4	78.200-151.000	119.07	54.400	54.400	51.1
THALLIUM	MG/KG	0/4	4	0/4			0.230	0.470	0.58
VANADIUM	MG/KG	4/4	4	1/4	28.900-32.600	30.13			30.4
ZINC	MG/KG	4/4	4	1/4	50.000-110.000	67.65			59.6

000472

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	4/4	4	4/4	14700.000-25700.000	20325.00			11900
ANTIMONY	MG/KG	0/4	4	0/4			13.800	14.800	NA
ARSENIC	MG/KG	1/1	1	0/1	6.400-6.400	6.40			8.20
BARIUM	MG/KG	4/4	4	4/4	97.100-172.000	122.53			95.7
BERYLLIUM	MG/KG	4/4	4	3/4	0.600-1.300	0.85			0.6
CADMIUM	MG/KG	0/4	4	0/4			1.200	1.200	0.870
CALCIUM	MG/KG	4/4	4	3/4	3540.000-73900.000	23192.50			4340
CHROMIUM	MG/KG	4/4	4	4/4	19.300-29.600	24.43			15.5
COBALT	MG/KG	4/4	4	0/4	9.600-12.500	11.20			14.2
COPPER	MG/KG	3/4	4	3/4	18.500-23.800	21.20	18.600	18.600	14.1
CYANIDE	MG/KG	1/4	4	1/4	0.580-0.580	0.58	0.610	0.620	0.270
IRON	MG/KG	4/4	4	3/4	19300.000-34700.000	27700.00			21700
LEAD	MG/KG	4/4	4	1/4	9.900-31.400	19.15			26.4
MAGNESIUM	MG/KG	4/4	4	4/4	3780.000-21200.000	8605.00			2780
MANGANESE	MG/KG	4/4	4	0/4	432.000-871.000	629.50			1350
MERCURY	MG/KG	1/4	4	0/4	0.100-0.100	0.10	0.060	0.080	0.3
MOLYBDENUM	MG/KG	0/4	4	0/4			11.500	12.300	NA
NICKEL	MG/KG	4/4	4	3/4	15.900-28.500	22.58			20.9
POTASSIUM	MG/KG	4/4	4	3/4	1090.000-2840.000	1690.00			1230
SELENIUM	MG/KG	0/4	4	0/4			0.250	1.200	0.72
SILICON	MG/KG	4/4	4	2/4	798.000-2880.000	1924.50			1800
SILVER	MG/KG	0/4	4	0/4			0.920	0.980	NA

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	3/4	4	3/4	79.600-166.000	136.20	85.300	85.300	51.1
THALLIUM	MG/KG	0/4	4	0/4			0.230	0.490	0.58
VANADIUM	MG/KG	4/4	4	4/4	34.500-47.300	39.93			30.4
ZINC	MG/KG	4/4	4	3/4	57.000-79.400	70.30			59.6

000474

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5699

AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	4/4	4	3/4	14300.000-27000.000	21675.00			16100
ANTIMONY	MG/KG	0/4	4	0/4			13.700	15.500	NA
ARSENIC	MG/KG	1/1	1	0/1	9.100-9.100	9.10			9.57
BARIUM	MG/KG	4/4	4	3/4	83.100-167.000	134.28			119
BERYLLIUM	MG/KG	3/4	4	3/4	1.000-1.100	1.07	0.460	0.460	0.620
CADMIUM	MG/KG	0/4	4	0/4			1.100	1.300	0.910
CALCIUM	MG/KG	4/4	4	0/4	3480.000-136000.000	38235.00			150000
CHROMIUM	MG/KG	4/4	4	3/4	16.800-31.100	25.30			20.7
COBALT	MG/KG	4/4	4	0/4	9.000-13.900	11.93			15.7
COPPER	MG/KG	3/4	4	1/4	15.200-22.900	19.27	25.600	25.600	20.0
CYANIDE	MG/KG	0/4	4	0/4			0.570	0.650	.17
IRON	MG/KG	4/4	4	2/4	19800.000-34300.000	28800.00			30700
LEAD	MG/KG	4/4	4	1/4	11.600-21.400	15.63			15.6
MAGNESIUM	MG/KG	4/4	4	0/4	4600.000-28300.000	10837.50			42600
MANGANESE	MG/KG	4/4	4	0/4	570.000-904.000	771.25			1300
MERCURY	MG/KG	2/4	4	0/4	0.060-0.130	0.10	0.060	0.110	0.29
MOLYBDENUM	MG/KG	0/4	4	0/4			11.400	13.000	2.7
NICKEL	MG/KG	4/4	4	0/4	21.600-30.100	26.45			34.3
POTASSIUM	MG/KG	4/4	4	1/4	1340.000-3020.000	1972.50			1980
SELENIUM	MG/KG	0/4	4	0/4			0.240	1.100	NA
SILICON	MG/KG	4/4	4	3/4	703.000-2920.000	1785.75			1590
SILVER	MG/KG	0/4	4	0/4			0.910	1.000	NA

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000475

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	2/4	4	0/4	159.000-208.000	183.50	70.900	109.000	285
THALLIUM	MG/KG	0/4	4	0/4			0.230	0.520	0.49
VANADIUM	MG/KG	4/4	4	3/4	26.500-51.300	42.63			37.8
ZINC	MG/KG	4/4	4	2/4	44.800-89.900	71.68			82.0

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
1,1-DICHLOROETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
1,1-DICHLOROETHENE	UG/KG	0/14	14	0/14			6.000	17.000	
1,2-DICHLOROETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/14	14	0/14			6.000	17.000	
1,2-DICHLOROPROPANE	UG/KG	0/14	14	0/14			6.000	17.000	
2-BUTANONE	UG/KG	0/14	14	0/14			6.000	17.000	
2-HEXANONE	UG/KG	0/14	14	0/14			12.000	17.000	
4-METHYL-2-PENTANONE	UG/KG	0/14	14	0/14			12.000	17.000	
ACETONE	UG/KG	0/14	14	0/14			12.000	17.000	
BENZENE	UG/KG	0/14	14	0/14			12.000	17.000	
BROMODICHLOROMETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
BROMOFORM	UG/KG	0/14	14	0/14			6.000	17.000	
BROMOMETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
CARBON DISULFIDE	UG/KG	0/14	14	0/14			12.000	17.000	
CARBON TETRACHLORIDE	UG/KG	0/14	14	0/14			6.000	17.000	
CHLOROBENZENE	UG/KG	0/14	14	0/14			6.000	17.000	
CHLOROETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
CHLOROFORM	UG/KG	0/14	14	0/14			12.000	17.000	
CHLOROMETHANE	UG/KG	0/14	14	0/14			6.000	17.000	

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/14	14	0/14			6.000	17.000	
DIBROMOCHLOROMETHANE	UG/KG	0/14	14	0/14			6.000	17.000	
ETHYLBENZENE	UG/KG	0/14	14	0/14			6.000	17.000	
METHYLENE CHLORIDE	UG/KG	3/14	14	3/14	1.000-13.000	5.00	12.000	17.000	
STYRENE	UG/KG	0/14	14	0/14			6.000	17.000	
TETRACHLOROETHENE	UG/KG	0/14	14	0/14			6.000	17.000	
TOLUENE	UG/KG	3/14	14	3/14	1.000-7.000	3.67	12.000	17.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/14	14	0/14			6.000	17.000	
TRICHLOROETHENE	UG/KG	0/14	14	0/14			6.000	17.000	
VINYL ACETATE	UG/KG	0/10	10	0/10			12.000	17.000	
VINYL CHLORIDE	UG/KG	0/14	14	0/14			12.000	17.000	
XYLENES, TOTAL	UG/KG	0/14	14	0/14			6.000	17.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			11.000	12.000	
2-BUTANONE	UG/KG	0/4	4	0/4			11.000	12.000	
2-HEXANONE	UG/KG	0/4	4	0/4			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/4	4	0/4			11.000	12.000	
ACETONE	UG/KG	0/4	4	0/4			11.000	12.000	
BENZENE	UG/KG	0/4	4	0/4			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
BROMOFORM	UG/KG	0/4	4	0/4			11.000	12.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROFORM	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			11.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
STYRENE	UG/KG	0/4	4	0/4			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
TOLUENE	UG/KG	1/4	4	1/4	3.000-3.000	3.00	12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			11.000	12.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			11.000	12.000	
2-BUTANONE	UG/KG	0/4	4	0/4			11.000	12.000	
2-HEXANONE	UG/KG	0/4	4	0/4			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/4	4	0/4			11.000	12.000	
ACETONE	UG/KG	0/4	4	0/4			11.000	12.000	
BENZENE	UG/KG	0/4	4	0/4			11.000	15.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
BROMOFORM	UG/KG	0/4	4	0/4			11.000	12.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROFORM	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			11.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
STYRENE	UG/KG	0/4	4	0/4			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
TOLUENE	UG/KG	0/4	4	0/4			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			11.000	12.000	

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			11.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			11.000	13.000	
2-BUTANONE	UG/KG	0/4	4	0/4			11.000	13.000	
2-HEXANONE	UG/KG	0/4	4	0/4			11.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/4	4	0/4			11.000	13.000	
ACETONE	UG/KG	0/4	4	0/4			11.000	13.000	
BENZENE	UG/KG	0/4	4	0/4			12.000	14.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
BROMOFORM	UG/KG	0/4	4	0/4			11.000	13.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			11.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			11.000	13.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			11.000	13.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
CHLOROFORM	UG/KG	0/4	4	0/4			11.000	13.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	13.000	

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	13.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			11.000	13.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			11.000	13.000	
STYRENE	UG/KG	0/4	4	0/4			11.000	13.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			11.000	13.000	
TOLUENE	UG/KG	0/4	4	0/4			11.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	13.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	13.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	13.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	13.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			11.000	13.000	

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/14	14	0/14			390.000	560.000	
1,2-DICHLOROBENZENE	UG/KG	0/14	14	0/14			390.000	560.000	
1,3-DICHLOROBENZENE	UG/KG	0/14	14	0/14			390.000	560.000	
1,4-DICHLOROBENZENE	UG/KG	0/14	14	0/14			390.000	560.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/14	14	0/14			940.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/14	14	0/14			390.000	560.000	
2,4-DICHLOROPHENOL	UG/KG	0/14	14	0/14			390.000	560.000	
2,4-DIMETHYLPHENOL	UG/KG	0/14	14	0/14			390.000	560.000	
2,4-DINITROPHENOL	UG/KG	0/14	14	0/14			940.000	2000.000	
2,4-DINITROTOLUENE	UG/KG	0/14	14	0/14			390.000	560.000	
2,6-DINITROTOLUENE	UG/KG	0/14	14	0/14			390.000	560.000	
2-CHLORONAPHTHALENE	UG/KG	0/14	14	0/14			390.000	560.000	
2-CHLOROPHENOL	UG/KG	0/14	14	0/14			390.000	560.000	
2-METHYLNAPHTHALENE	UG/KG	1/14	14	1/14	25.000-25.000	25.00	400.000	560.000	
2-METHYLPHENOL	UG/KG	0/14	14	0/14			390.000	560.000	
2-NITROANILINE	UG/KG	0/14	14	0/14			940.000	2000.000	
2-NITROPHENOL	UG/KG	0/14	14	0/14			390.000	560.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/12	12	0/12			390.000	830.000	
3-NITROANILINE	NONE	0/10	10	0/10			940.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/14	14	0/14			940.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/14	14	0/14			390.000	560.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/14	14	0/14			390.000	560.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/14	14	0/14			390.000	560.000	
4-METHYLPHENOL	UG/KG	0/14	14	0/14			390.000	560.000	
4-NITROANILINE	UG/KG	0/9	9	0/9			940.000	2000.000	
4-NITROPHENOL	UG/KG	0/14	14	0/14			940.000	2000.000	
ACENAPHTHENE	UG/KG	0/14	14	0/14			390.000	560.000	
ACENAPHTHYLENE	UG/KG	3/14	14	3/14	41.000-620.000	234.33	390.000	450.000	
ANTHRACENE	UG/KG	2/14	14	2/14	17.000-170.000	93.50	390.000	560.000	
BENZO(A)ANTHRACENE	UG/KG	5/14	14	5/14	52.000-590.000	167.60	390.000	450.000	
BENZO(A)PYRENE	UG/KG	4/14	14	4/14	47.000-940.000	291.25	390.000	450.000	
BENZO(B)FLUORANTHENE	UG/KG	5/14	14	5/14	44.000-1800.000	429.80	390.000	450.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/14	14	1/14	1100.000-1100.000	1100.00	390.000	560.000	
BENZO(K)FLUORANTHENE	UG/KG	5/14	14	5/14	56.000-1300.000	332.20	390.000	450.000	
BENZOIC ACID	UG/KG	1/2	2	1/2	89.000-89.000	89.00	1100.000	1100.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			420.000	450.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/14	14	0/14			390.000	560.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/14	14	0/14			390.000	560.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/14	14	0/14			390.000	560.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/14	14	0/14			390.000	560.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/14	14	0/14			390.000	560.000	
CARBAZOLE	UG/KG	0/12	12	0/12			390.000	560.000	
CHRYSENE	UG/KG	7/14	14	7/14	45.000-590.000	144.43	390.000	450.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/14	14	2/14	42.000-66.000	54.00	390.000	560.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/14	14	0/14			390.000	560.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	1/14	14	1/14	400.000-400.000	400.00	390.000	560.000	
DIBENZOFURAN	UG/KG	0/14	14	0/14			390.000	560.000	
DIETHYL PHTHALATE	UG/KG	0/14	14	0/14			390.000	560.000	
DIMETHYL PHTHALATE	UG/KG	0/14	14	0/14			390.000	560.000	
FLUORANTHENE	UG/KG	9/14	14	9/14	42.000-210.000	101.56	390.000	450.000	
FLUORENE	UG/KG	1/14	14	1/14	17.000-17.000	17.00	390.000	560.000	
HEXACHLOROBENZENE	UG/KG	0/14	14	0/14			390.000	560.000	
HEXACHLOROBUTADIENE	UG/KG	0/14	14	0/14			390.000	560.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/14	14	0/14			390.000	560.000	
HEXACHLOROETHANE	UG/KG	0/14	14	0/14			390.000	560.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/14	14	1/14	1500.000-1500.000	1500.00	390.000	560.000	
ISOPHORONE	UG/KG	0/14	14	0/14			390.000	560.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/14	14	0/14			390.000	560.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/14	14	0/14			390.000	560.000	
NAPHTHALENE	UG/KG	1/14	14	1/14	39.000-39.000	39.00	390.000	560.000	
NITROBENZENE	UG/KG	0/14	14	0/14			390.000	560.000	
P-CHLOROANILINE	UG/KG	0/9	9	0/9			390.000	460.000	
PENTACHLOROPHENOL	UG/KG	0/14	14	0/14			940.000	2000.000	
PHENANTHRENE	UG/KG	6/14	14	6/14	33.000-59.000	47.33	390.000	450.000	
PHENOL	UG/KG	0/14	14	0/14			390.000	560.000	
PYRENE	UG/KG	9/14	14	9/14	36.000-290.000	103.33	390.000	450.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			920.000	960.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			920.000	960.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			380.000	400.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			380.000	400.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			920.000	960.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			380.000	400.000	
3-NITROANILINE	NONE	0/2	2	0/2			930.000	960.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			920.000	960.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			380.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	

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000488

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			380.000	400.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			930.000	960.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			920.000	960.000	
ACENAPHTHENE	UG/KG	0/4	4	0/4			380.000	400.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			380.000	400.000	
ANTHRACENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(A)PYRENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	4	0/4			380.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			380.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			380.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			380.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
CARBAZOLE	UG/KG	0/4	4	0/4			380.000	400.000	
CHRYSENE	UG/KG	0/4	4	0/4			380.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/4	4	1/4	35.000-35.000	35.00	380.000	390.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	4	0/4			380.000	400.000	

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C00489

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DIBENZOFURAN	UG/KG	0/4	4	0/4			380.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	400.000	
FLUORANTHENE	UG/KG	1/4	4	1/4	53.000-53.000	53.00	380.000	400.000	
FLUORENE	UG/KG	0/4	4	0/4			380.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			380.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			380.000	400.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			380.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	4	0/4			380.000	400.000	
ISOPHORONE	UG/KG	0/4	4	0/4			380.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			380.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			380.000	400.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			380.000	400.000	
NITROBENZENE	UG/KG	0/4	4	0/4			380.000	400.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			380.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			920.000	960.000	
PHENANTHRENE	UG/KG	0/4	4	0/4			380.000	400.000	
PHENOL	UG/KG	0/4	4	0/4			380.000	400.000	
PYRENE	UG/KG	1/4	4	1/4	53.000-53.000	53.00	380.000	400.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			380.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			380.000	410.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			380.000	410.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	410.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			920.000	1000.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			380.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			380.000	410.000	
3-NITROANILINE	NONE	0/2	2	0/2			990.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			380.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	410.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			380.000	410.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	410.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			990.000	1000.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
ACENAPHTHENE	UG/KG	0/4	4	0/4			380.000	410.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			380.000	410.000	
ANTHRACENE	UG/KG	0/4	4	0/4			380.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	4	0/4			380.000	410.000	
BENZO(A)PYRENE	UG/KG	0/4	4	0/4			380.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	4	0/4			380.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			380.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			380.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			380.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/4	4	0/4			380.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	410.000	
CARBAZOLE	UG/KG	0/4	4	0/4			380.000	410.000	
CHRYSENE	UG/KG	0/4	4	0/4			380.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	410.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	4	0/4			380.000	410.000	

05/26/94

000492

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DIBENZOFURAN	UG/KG	0/4	4	0/4			380.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	410.000	
FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	410.000	
FLUORENE	UG/KG	0/4	4	0/4			380.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			380.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			380.000	410.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			380.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	4	0/4			380.000	410.000	
ISOPHORONE	UG/KG	0/4	4	0/4			380.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			380.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			380.000	410.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			380.000	410.000	
NITROBENZENE	UG/KG	0/4	4	0/4			380.000	410.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			410.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
PHENANTHRENE	UG/KG	0/4	4	0/4			380.000	410.000	
PHENOL	UG/KG	0/4	4	0/4			380.000	410.000	
PYRENE	UG/KG	0/4	4	0/4			380.000	410.000	

05/26/94

AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			920.000	1000.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			380.000	420.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			380.000	420.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			380.000	420.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			380.000	420.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			380.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			380.000	420.000	

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-METHYLPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1000.000	1000.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			920.000	1000.000	
ACENAPHTHENE	UG/KG	0/4	4	0/4			380.000	420.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			380.000	420.000	
ANTHRACENE	UG/KG	0/4	4	0/4			380.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	4	0/4			380.000	420.000	
BENZO(A)PYRENE	UG/KG	0/4	4	0/4			380.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	4	0/4			380.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	420.000	
BIS(2-CHLORQETHOXY)METHANE	UG/KG	0/4	4	0/4			380.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			380.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			380.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/4	4	0/4			380.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	420.000	
CARBAZOLE	UG/KG	0/4	4	0/4			380.000	420.000	
CHRYSENE	UG/KG	0/4	4	0/4			380.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/4	4	1/4	48.000-48.000	48.00	380.000	420.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	4	0/4			380.000	420.000	
DIBENZOFURAN	UG/KG	0/4	4	0/4			380.000	420.000	

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000495

AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	420.000	
FLUORANTHENE	UG/KG	0/4	4	0/4			380.000	420.000	
FLUORENE	UG/KG	0/4	4	0/4			380.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			380.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			380.000	420.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			380.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	4	0/4			380.000	420.000	
ISOPHORONE	UG/KG	0/4	4	0/4			380.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			380.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			380.000	420.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			380.000	420.000	
NITROBENZENE	UG/KG	0/4	4	0/4			380.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
PHENANTHRENE	UG/KG	0/4	4	0/4			920.000	1000.000	
PHENOL	UG/KG	0/4	4	0/4			380.000	420.000	
PYRENE	UG/KG	0/4	4	0/4			380.000	420.000	

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.800	20.000	
4,4'-DDE	UG/KG	0/2	2	0/2			3.800	20.000	
4,4'-DDT	UG/KG	0/2	2	0/2			3.800	20.000	
ALDRIN	UG/KG	0/2	2	0/2			1.900	10.000	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.900	10.000	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	100.000	
AROCLOR-1016	UG/KG	0/2	2	0/2			38.000	100.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			76.000	100.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			38.000	100.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			38.000	100.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			38.000	100.000	
AROCLOR-1254	UG/KG	1/2	2	1/2	120.000-120.000	120.00	200.000	200.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			38.000	200.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.900	10.000	
DELTA-BHC	UG/KG	0/2	2	0/2			1.900	10.000	
DIELDRIN	UG/KG	0/2	2	0/2			3.800	20.000	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.800	20.000	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.800	20.000	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.900	10.000	
ENDRIN	UG/KG	0/2	2	0/2			3.800	20.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.800	20.000	

000497

AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.900	10.000	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	100.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.900	10.000	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.900	10.000	
METHOXYCHLOR	UG/KG	0/2	2	0/2			19.000	100.000	
TOXAPHENE	UG/KG	0/2	2	0/2			190.000	200.000	

000498

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS									
DEPTH: 0 - .5 FEET									
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/12	12	0/12			43.000	180.000	

000499

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: .5 - 1 FEET									
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			44.000	200.000	

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AREA: Sewage Treatment Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 1 - 1.5 FEET									
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			90.000	360.000	

000501

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 1.5 - 3 FEET									
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			71.000	190.000	

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 3 - 5 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	5865.000-5865.000	5865.00			

000503

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AREA: Sewage Treatment Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 15 - 20 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	1140.000-1140.000	1140.00			

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D.2.8 PILOT PLANT AREA

The pilot plant area, as shown in Figure D.2-12, is located in the southwest corner of the former production area. The area is bounded on the east by the laboratory area, along the south by the pilot plant warehouse and ammonia tank farm, on the west by the production area perimeter fence, and on the north by Plant 8. Facilities and operations areas in the pilot plant area consists of the pilot plant wet side (13A), six to four reduction facility No. 1 (54A), pilot plant annex (37), pilot shelter, pilot plant desiccator shelter (54B), pilot plant maintenance building (13B), sump pump house (13C), pilot plant thorium tank farm (13D), well house No. 3 (20G), and other support structures. The pilot plant was originally used for the pilot testing of plant operations prior to start-up and continued as the center for process optimization studies. During the course of plant operations, several processes relating to purification of uranium and thorium metals were performed. In addition, processes for reduction of uranium hexafluoride (UF_6) to uranium tetrafluoride (UF_4) were conducted in the six to four reduction facility No. 1. Table D-1 summarizes the parameters known to be present or used in the pilot plant area.

Soil samples from the pilot plant area were collected and analyzed under two distinct soil sampling programs. The first program was implemented under the Production and Additional Suspect Areas (PASA) Work Plan dated October 1989. The sampling was performed in response to concerns of investigators because of the numerous processes conducted and radioactive materials and chemicals handled in the pilot plant. Some thorium storage also occurred near the pilot plant. The PASA program in this area included one 250-foot, systematic soil boring (1261) and 14 focused borings (1245 through 1253, 1258 through 1261, and 1265) within and adjacent to the pilot plant. These borings were located either in proximity to above-grade tanks near the pilot plant or through the building floor. Soil samples were collected from selected intervals in these borings and analyzed for full radiological constituents and/or full HSL parameters. In addition, one Type 2 well (Well 2053) was added to the cluster well in the north side of the laboratory to provide a monitoring point downgradient of the pilot plant.

The second soil sampling program in the pilot plant area was conducted under the Project Specific Plan for Surface and Subsurface Soils Sampling Investigation, dated June 1993. Three deep borings (11096, 11098, and 11099) were drilled and sampled during July and August of 1993. As shown in Figure D.2-12, Boring 11096 is located northwest and borings 11098 and 11099 are located south of the main plant building. Soil samples were collected at depth intervals of 0 to 0.5 feet,

1.0 to 1.5 feet, 2.5 to 3.0 feet, and over a 6-inch interval for every 3-foot increment thereafter to a depth of 20 feet or until groundwater was encountered. All the samples were analyzed for full radiological and HSL parameters. The sampling locations are shown in Figure D.2-12.

Removal Action No. 24 was conducted in the pilot plant sump. Liquid and sludges that accumulated in the sump were pumped out, and the sump was removed in September 1993. Contaminated soil resulting from this removal action was characterized and removed. The pilot plant sump is a hazardous waste management unit (HWMU).

Surface Soil

The maximum detection of each parameter was compared to the established 95th percentile background value (background), if any, of the parameter. The distribution of constituents with respect to background in the pilot plant area are presented in Table D.2-8. Isoconcentration maps showing the lateral extent of constituents are presented in the Plates.

Radiochemical analytical results for the pilot plant area indicated that the radiological contaminants in all of the surface soil depths primarily consist of various isotopes of uranium, thorium, and radium. These isotopes were detected at activities exceeding background in all surface soil intervals, except in the 1.0- to 1.5-foot depth interval samples, where thorium-230, radium-226, and radium-228 were detected at levels less than background. Uranium-238 and uranium-234, as well as total uranium, are present at levels greater than five times background in samples from all surface soil depth intervals. Other isotopes of uranium, thorium, and radium, except thorium-232 and thorium-228, were also detected at levels greater than five times their background value, but only in the samples from the 0- to 0.5-foot and 0.5- to 1.0-foot depth intervals. In addition, total thorium was present at two to five times the background value in samples from the 1.0- to 1.5-foot depth interval of surface soil. Highest levels of the radionuclides were typically adjacent to the pilot plant wet side, the thorium tank farm, and pilot plant sump.

Neptunium-237 and ruthenium-106 were analyzed for, but no activities were detected in any of the surface soil samples. Activities for plutonium isotopes, i.e., plutonium-238 and plutonium-239/240, were detected in the samples from 0- to 0.5-foot depth interval of surface soil, but their background levels were not available. Strontium-90 was present only in the samples from 0- to 0.5-foot and 0.5- to 1.0-foot depth intervals of surface soil with activity levels slightly higher than two times the

background value. Technetium-99 was detected in one sample from each of the 0- to 0.5-foot and 1.0- to 1.5-foot depth intervals. Cesium-137 was analyzed, and was detected in only one of the samples from the 0- to 0.5-foot depth interval.

A number of inorganic constituents were detected at levels greater than background in surface soil samples. Cadmium, calcium, magnesium, and sodium were detected at levels greater than five times background in all surface soil intervals, except for cadmium in the 1.0- to 1.5-foot depth interval. Arsenic, copper, lead, and potassium were detected at concentrations between two and five times background only in samples from the 0- to 0.5-foot depth interval. Barium was detected at concentration between two times and five times background in samples from 0- to 1.0-foot depth intervals. Beryllium was present at two and five times background in samples from the 0- to 0.5-foot and the 1.0- to 1.5-foot depth intervals. Mercury and nickel were detected at concentrations between two and five times background only in the samples from the 0.5- to 1.0-foot depth interval. Other inorganic constituents, including aluminum, chromium, cobalt, and iron, were detected at levels exceeding, but less than two times, background in surface soil samples. As with the radionuclides, detections were primarily to the west of the pilot plant wet side.

A total of 11 volatile organic compounds (VOCs) were detected in one or more of the surface soil depth intervals sampled. These VOCs are primarily basic components of common solvents (e.g., acetone, butanone, and chlorinated ethanes and ethenes) and of petroleum products (e.g., BTEX compounds or benzene, toluene, ethylbenzene, and xylene). Trichloroethene and 1,2-dichloroethene (total) were detected in samples collected throughout the surface soil.

Various semivolatile organic compounds, primarily polynuclear aromatic hydrocarbons (PAHs), were detected in the surface soil samples collected from depth intervals of 0.0 to 0.5 foot and 0.5 to 1.0 foot. Di-n-butyl phthalate was detected in samples collected throughout the surface soil. In addition, pesticides and PCBs, in the forms of beta-BHC, Aroclor-1254, and Aroclor-1260, were detected in the surface soil samples from depth intervals of 0 to 0.5 foot and 0.5 to 1.0 foot.

Subsurface Soil

Similar to surface soil, radiochemical results for subsurface soil in the pilot plant area indicated that the major radiological constituents detected in the subsurface soil include isotopes of uranium, thorium, and radium. Uranium isotopes, including uranium-238, uranium-234, and uranium-235/236,

were detected at activities greater than five times their 95th percentile background levels (background) in samples collected from the subsurface soil at depths of 1.5 to 15 feet below ground. Total uranium however, was present in 15.0- to 20.0-foot depth interval samples with concentrations greater than five times background. Most thorium and radium isotopes were detected at levels greater than twice background in the samples collected from as deep as 5 to 10 feet. Levels of thorium-232, radium-228, thorium-228, and total thorium were detected at greater than five times background in samples from the 5.0- to 10.0-foot depth interval. Total thorium concentrations were also present in the samples from the 10.0- to 15.0-foot and 15.0- to 20.0-foot depth intervals at levels slightly greater than two times and one time background, respectively.

No detection of neptunium-237, plutonium-238, plutonium-239/240, ruthenium-106, or cesium-137 was recorded in any of the subsurface soil samples. Strontium-90 was detected in samples from the 3.0- to 5.0-foot and 5.0- to 10.0-foot depth intervals at activity levels slightly higher than one time and two times background, respectively. Technetium-99 was detected in the subsurface soil samples from depth intervals as great as 10.0 to 15.0 feet.

The primary inorganic contaminants, which were detected in the samples from at least one depth interval of subsurface soil with concentrations greater than two times background, include barium, beryllium, cadmium, manganese, and sodium. Cadmium was detected at concentrations greater than five times background in the subsurface soil samples from depth intervals as great as 15.0 to 20.0 feet. Beryllium was present at concentrations greater than, but less than two times background in samples collected throughout the subsurface soil. Other major inorganic contaminants, including barium, chromium, and lead, were detected in samples from depths of 10.0 to 15.0 feet. Selenium and silver were detected in samples from most of the subsurface soil depth intervals, but their background concentrations were not recorded.

VOC detection was greater in the subsurface than in the surface soil samples at the pilot plant area. Similarly, these VOCs included major ingredients in common solvents, process solvents, and petroleum products. Although most VOCs were detected in samples from depth intervals between 1.5 and 15.0 feet, several VOCs, including acetone, carbon disulfide, and ethylbenzene, were also detected in the 15.0- to 20.0-foot depth interval samples.

Semivolatile organic compounds similar to those detected in surface soil were detected in subsurface soil samples although to a lesser extent. The compounds, primarily PAHs were detected at depths as great as 10.0 to 15.0 feet. No semivolatile organic compounds were detected in the samples from the 15.0- to 20.0-foot depth interval.

Pesticides and PCBs were not detected in any of the subsurface soil samples.

Conclusion

Radiological and chemical contamination in the pilot plant area appears to be present primarily in the surface and subsurface soil to a depth of 15 feet below ground surface. Generally, activities of radiological contaminants in surface soil decrease as sample depth increases. However, at the pilot plant area, levels of radiological contaminants in samples from the 1.5- to 3.0-foot depth interval were higher than those from the surface soil depth interval immediately above it. The levels of radiological contaminants in the subsurface soil at the pilot plant area decrease initially as the sample depth increases, but then increase noticeably in samples from depth intervals of 5 to 10 feet and/or 10 to 15 feet. Since the water table in this area is approximately 7 feet below ground surface, this increase could be related to groundwater contamination. Although reduced significantly, concentrations of total uranium were recorded at greater than five times background in most of the samples taken from depths of 15 to 20 feet.

Chemical contamination in the surface and subsurface soil generally follows the same trend as radiological contamination. Greater numbers and concentrations of chemical constituents, including inorganic and organic compounds, were found in samples from the 5.0- to 10.0-foot and 10.0- to 15.0-foot depth intervals than from the depth intervals immediately above or below them. Typical laboratory contaminants, including acetone, methylene chloride, 2-butanone, and 4-methyl-2-pentanone, were detected in surface and subsurface soil samples. A few volatile organic compounds were found in samples from depths of 15 to 20 feet. Nevertheless, no semivolatile organic compounds, pesticides, or PCBs were found in samples from depths of 15 to 20 feet.

The apparent source of surface soil contamination in the pilot plant area is airborne particulates from process plants within the production area. Releases from the processes used in the pilot plant and its associated facilities, e.g., six to four reduction facility No. 1, maintenance building, sump, thorium tank farm, and solvent storage areas, are potential sources of contamination. The distribution of

contamination vertically through the subsurface soil on the western side of the pilot plant area indicates that spills or leaks from processes that handled liquids may have occurred in this area. The presence of contaminated sediment at the pilot plant sump and contaminated soil around the excavated temporary sump suggests that the sump is a probable source of subsurface soil contamination. Since the perched groundwater table in the pilot plant area is only approximately 10 feet below ground surface, lateral migration through sand lenses in the area may be the pathway for contaminant movement in the subsurface soil.

TABLE D.2-8
PILOT PLANT
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	5	■	■	■	■	■	■	■	■	■	■	-	X	X	◉	X	-	●
0.5 - 1	3	■	■	■	■	■	■	●	●	■	●	-	-	-	◉	-	-	-
1 - 1.5	3	■	■	■	○	○	-	●	◉	○	●	-			-	X	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	6	■	■	■	●	○	■	○	●	○	○	-	-	-	-	X	-	-
3 - 5	3	■	■	■	◉	◉	■	●	■	●	◉	-	-	-	●	X	-	-
5 - 10	6	■	■	■	◉	◉	■	■	■	■	■	-	-	-	◉	X	-	-
10 - 15	4	■	■	■	○	○	■	○	◉	●	○	-	-	-	-	X	-	-
15 - 20	4		■		○			-	●		-							

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	5	●	-	◉	◉	◉	■	■	●	●	◉	-	●	◉	■	○	●	-	●	◉	-	○	X	■	-	●	●
0.5 - 1	3	●	-	○	◉	●	■	■	●	●	●	-	●	●	■	○	◉	-	◉	●			X	■	-	○	○
1 - 1.5	3	●	-	●	●	◉	-	■	●	●	●	-	●	○	■	○	-	-	●	●	-	○	-	■	-	●	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	6	○	-	○	○	◉	◉	○	○	○	○	○	○	●	●	◉	-	○	○	○	X	○	X	◉	-	○	○
3 - 5	2	○		●	○	●	■	○	○	○	●	-	○	●	○	○	-	●	○	○	-		X	●	-	○	○
5 - 10	9	●	-	●	◉	●	◉	○	●	●	●	-	●	●	○	●	○	-	○	●	X	○	X	■	-	●	○
10 - 15	6	○	-	○	■	●	■	●	●	○	●	-	○	●	○	○	○	●	○	●	X	○	X	■	-	○	○
15 - 20	1	○		○	○	●	■	○	○	○	○	-	○	○	○	○	-	○	○	○	-		X	○	-	○	○

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

◉ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-8
(Continued)

Depth Interval, Feet	Number of Samples	1,1,-Dichloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	1,2-Dichloroethene (total)	2-Butanone	4-Methyl-2-pentanone	Acetone	Benzene	Carbon disulfide	Chlorobenzene	Chloroform	Ethylbenzene	Methylene chloride	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene	Vinyl chloride
		VOLATILES (ug/kg)																				
Surface Soil:																						
0 - 0.5	6	X	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	X	-
0.5 - 1	3	-	-	-	-	X	-	X	-	-	-	X	-	X	-	-	-	-	X	-	X	-
1 - 1.5	3	-	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	X	-	-	X	-
Subsurface Soil:																						
1.5 - 3	4	X	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	X	X	-	X	-
3 - 5	1	X	X	X	X	X	-	X	-	-	-	-	X	-	X	-	-	X	X	-	X	-
5 - 10	8	X	X	X	X	X	X	X	X	-	X	-	X	-	X	-	-	X	-	-	X	X
10 - 15	6	X	X	X	-	X	X	X	-	-	X	-	X	-	-	-	-	X	X	X	X	X
15 - 20	1	-	-	-	-	-	-	-	-	-	X	-	X	-	-	X	-	-	-	-	-	-

"Blank" - Compound was not analyzed.

X Detection where background level not recorded.

- Analyzed and not detected.

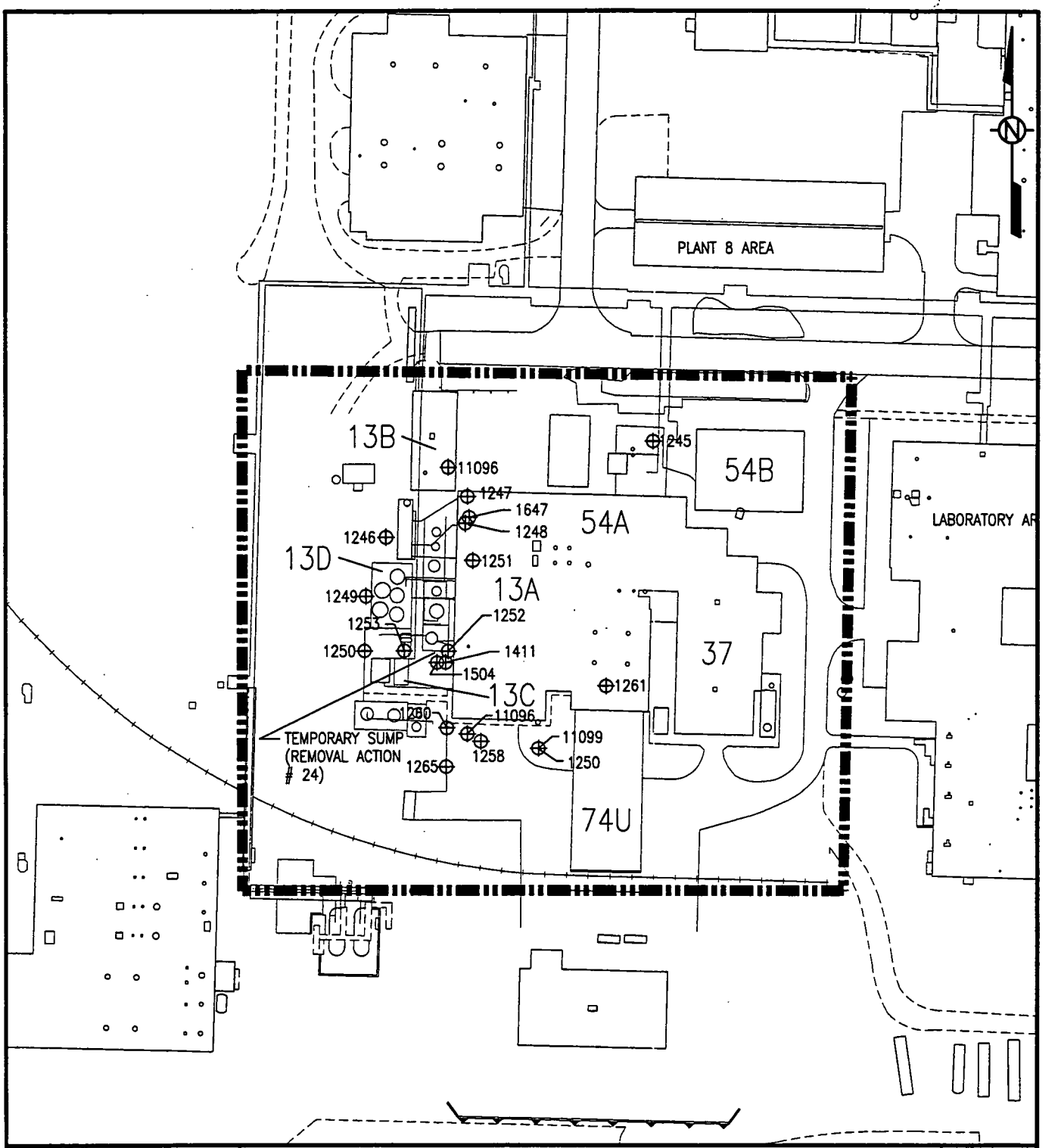
TABLE D.2-8
(Continued)

Depth Interval, Feet	SEMIVOLATILES (ug/kg)																					PESTICIDES/PCBs (ug/kg)								
	Number of Samples	2-Methylnaphthalene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ehtylhexyl)phthalate	Chrysene	Di-n-butyl phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Number of Samples	Aroclor-1221	Aroclor-1254	Aroclor-1016	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1260	Beta-BHC
Surface Soil:																															
0 - 0.5	6	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	-	X	6	-	X	-	-	-	-	X	X
0.5 - 1	3	-	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-	X	X	X	3	-	X	-	-	-	-	X	X
1 - 1.5	3	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
Subsurface Soil:																															
1.5 - 3	5	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-
3 - 5	2	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	2	X	X	X	X	X	X	X	-
5 - 10	9	-	-	-	X	X	X	-	X	X	X	X	X	-	-	X	-	X	-	X	-	X	11	-	-	-	-	-	-	-	-
10 - 15	6	-	-	-	-	-	X	-	-	-	X	-	X	-	-	X	-	-	-	X	-	X	6	-	-	-	-	-	-	-	-
15 - 20	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-

"Blank" - Compound was not analyzed.

O Analyzed and not detected.

X Detection where background level not recorded.



LEGEND :

13A	FACILITY DESIGNATION
⊕ 1304	SOIL BORING LOCATION
▬ ▪ ▬ ▪ ▬	BOUNDARY OF AREA OF INTEREST

SCALE

0 200 400 FEET

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STATE PLANAR COORDINATE SYSTEM 1927

ACAD: C:\4P94\11.SCR 05/26/94 RSG
ACAD: C:\4P94\94051002.DWG 6/11/94 JAK

FIGURE D.2–12. PILOT PLANT AREA

5699

Pilot Plant Area

Summary Soil Statistics

AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	7/7	7	6/7	0.700-78.100	31.66			1.24
URANIUM, TOTAL	MG/KG	7/7	6	7/7	6.000-242.000	91.04			3.73
URANIUM-234	PCI/G	7/7	7	6/7	0.700-92.200	39.49			1.24
THORIUM-230	PCI/G	7/7	7	2/7	0.900-23.200	4.84			1.97
RADIUM-226	PCI/G	5/5	5	2/5	0.300-8.000	3.60			1.42
URANIUM-235/236	PCI/G	6/7	7	6/7	0.200-5.690	2.99	0.100	0.100	0.156
THORIUM-232	PCI/G	6/7	7	4/7	0.700-20.400	5.67	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	7/7	4	4/7	5.370-184.000	44.71			12.4
RADIUM-228	PCI/G	4/5	5	3/5	0.600-49.800	20.08	0.500	0.500	1.25
THORIUM-228	PCI/G	6/7	7	4/7	0.700-26.100	6.98	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/4	4	1/4	1.650-1.650	1.65	0.600	0.600	NA
PLUTONIUM-238	PCI/G	2/4	4	2/4	6.100-19.800	12.95	0.600	0.600	NA
STRONTIUM-90	PCI/G	1/4	4	1/4	0.880-0.880	0.88	0.500	1.000	0.424
TECHNETIUM-99	PCI/G	1/3	3	1/3	2.050-2.050	2.05	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.200	2.800	NA
CESIUM-137	PCI/G	1/3	3	1/3	1.200-1.200	1.20	0.200	0.260	0.711

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	4/4	4	4/4	13.500-57.700	36.30			1.24
URANIUM, TOTAL	MG/KG	2/2	2	2/2	34.300-74.500	54.40			3.73
URANIUM-234	PCI/G	4/4	4	4/4	12.300-54.900	40.40			1.24
THORIUM-230	PCI/G	3/3	3	1/3	1.300-55.600	19.54			1.97
RADIUM-226	PCI/G	2/2	2	1/2	0.910-7.320	4.12			1.42
URANIUM-235/236	PCI/G	4/4	4	4/4	1.610-2.300	1.91			0.156
THORIUM-232	PCI/G	2/3	3	1/3	1.100-1.600	1.35	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	2/3	3	1/3	9.940-14.000	11.97	5.472	5.472	12.4
RADIUM-228	PCI/G	2/2	2	1/2	0.800-23.900	12.35			1.25
THORIUM-228	PCI/G	3/3	3	1/3	0.600-1.900	1.18			1.43
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/4	4	2/4	0.700-1.030	0.87	0.500	0.800	0.424
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.480	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	0.711

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	4/4	4	2/4	0.700-16.500	5.35			1.24
URANIUM, TOTAL	MG/KG	5/6	4	4/6	3.000-47.000	20.78	11.000	11.000	3.73
URANIUM-234	PCI/G	4/4	4	2/4	0.500-25.600	8.05			1.24
THORIUM-230	PCI/G	4/4	4	0/4	0.840-1.300	1.11			1.97
RADIUM-226	PCI/G	4/4	4	0/4	0.300-0.900	0.66			1.42
URANIUM-235/236	PCI/G	0/3	3	0/3			0.100	0.600	0.156
THORIUM-232	PCI/G	4/4	4	1/4	0.610-2.000	1.13			1.36
THORIUM, TOTAL	MG/KG	5/6	1	2/6	5.490-48.000	17.81	23.000	23.000	12.4
RADIUM-228	PCI/G	2/4	4	0/4	0.600-0.710	0.66	0.500	0.500	1.25
THORIUM-228	PCI/G	4/4	4	1/4	1.000-2.600	1.50			1.43
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/1	1	1/1	27.800-27.800	27.80			NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	0.711

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5699

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	7/7	7	7/7	1.160-253.000	40.55			1.12
URANIUM, TOTAL	MG/KG	11/14	10	8/14	2.800-637.000	75.05	6.000	11.000	3.69
URANIUM-234	PCI/G	7/7	7	6/7	1.000-258.000	41.05			1.04
THORIUM-230	PCI/G	7/7	7	1/7	0.400-3.030	1.27			1.91
RADIUM-226	PCI/G	5/6	6	0/6	0.300-1.070	0.64	0.250	0.250	1.47
URANIUM-235/236	PCI/G	2/6	6	2/6	3.500-14.800	9.15	0.100	0.600	0.150
THORIUM-232	PCI/G	5/7	7	0/7	0.700-0.900	0.77	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	8/13	5	1/13	1.230-19.000	7.24	5.400	23.000	11.1
RADIUM-228	PCI/G	3/6	6	0/6	0.600-1.010	0.84	0.500	0.500	1.31
THORIUM-228	PCI/G	7/7	7	0/7	0.500-1.230	0.86			1.38
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/2	2	1/2	15.300-15.300	15.30	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.100	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	2/2	2	2/2	3.800-19.300	11.55			1.12
URANIUM, TOTAL	MG/KG	9/9	8	8/9	3.100-170.000	47.52			3.69
URANIUM-234	PCI/G	2/2	2	2/2	3.560-21.600	12.58			1.04
THORIUM-230	PCI/G	3/3	3	2/3	1.130-4.610	3.06			1.91
RADIUM-226	PCI/G	2/2	2	2/2	3.050-3.140	3.10			1.47
URANIUM-235/236	PCI/G	1/2	2	1/2	1.690-1.690	1.69	0.600	0.600	0.150
THORIUM-232	PCI/G	2/3	3	1/3	0.650-2.410	1.53	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	6/6	4	3/6	5.340-83.000	28.48			11.1
RADIUM-228	PCI/G	2/2	2	1/2	1.000-2.580	1.79			1.31
THORIUM-228	PCI/G	3/3	3	1/3	0.860-3.500	1.78			1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/2	2	1/2	0.570-0.570	0.57	0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/2	2	1/2	1.240-1.240	1.24	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	7/7	7	4/7	0.500-69.800	15.99			1.12
URANIUM, TOTAL	MG/KG	22/24	19	17/24	2.050-703.000	107.76	11.000	11.000	3.69
URANIUM-234	PCI/G	7/7	7	4/7	0.500-86.900	18.16			1.04
THORIUM-230	PCI/G	8/9	9	1/9	0.610-6.180	1.81	0.300	0.300	1.91
RADIUM-226	PCI/G	7/7	7	1/7	0.300-5.910	1.44			1.47
URANIUM-235/236	PCI/G	3/6	6	3/6	0.300-7.800	3.13	0.100	0.100	0.150
THORIUM-232	PCI/G	8/9	9	1/9	0.300-8.070	1.74	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	13/18	6	3/18	2.736-290.000	34.04	2.840	23.000	11.1
RADIUM-228	PCI/G	3/7	7	1/7	1.000-17.600	6.57	0.500	0.500	1.31
THORIUM-228	PCI/G	9/9	9	1/9	0.400-14.600	2.31			1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	1.070-1.070	1.07			.436
TECHNETIUM-99	PCI/G	1/1	1	1/1	1.300-1.300	1.30			NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			8.100	8.100	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.600	0.600	NA

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	5/5	5	5/5	1.300-267.000	74.06			1.12
URANIUM, TOTAL	MG/KG	13/13	13	13/13	5.720-629.000	126.42			3.69
URANIUM-234	PCI/G	5/5	5	5/5	1.100-255.000	73.26			1.04
THORIUM-230	PCI/G	5/6	6	0/6	0.500-1.710	1.06	0.600	0.600	1.91
RADIUM-226	PCI/G	4/4	4	0/4	0.300-0.520	0.41			1.47
URANIUM-235/236	PCI/G	3/4	4	3/4	0.300-17.300	8.80	0.100	0.100	0.150
THORIUM-232	PCI/G	4/6	6	0/6	0.400-0.900	0.65	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	9/10	7	2/10	3.640-28.600	9.34	5.472	5.472	11.1
RADIUM-228	PCI/G	2/4	4	1/4	0.600-2.030	1.32	0.500	0.500	1.31
THORIUM-228	PCI/G	3/6	6	0/6	0.300-0.800	0.60	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/2	2	1/2	1.640-1.640	1.64	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.310	1.310	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	11/11	11	10/11	2.490-102.900	24.99			3.69
THORIUM-230	PCI/G	1/1	1	0/1	0.840-0.840	0.84			1.91
THORIUM-232	PCI/G	0/1	1	0/1			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	2/5	5	1/5	6.210-12.700	9.46	3.900	5.472	11.1
THORIUM-228	PCI/G	0/1	1	0/1			0.600	0.600	1.38

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	6/6	6	1/6	2390.000-18000.000	9218.33			11900
ANTIMONY	MG/KG	0/5	5	0/5			1.100	6.200	NA
ARSENIC	MG/KG	6/6	6	1/6	1.500-17.300	7.05			8.20
BARIUM	MG/KG	6/6	6	3/6	21.700-401.000	176.50			95.7
BERYLLIUM	MG/KG	5/6	6	4/6	0.480-1.700	1.18	1.500	1.500	0.6
CADMIUM	MG/KG	3/6	6	3/6	3.400-5.400	4.50	1.000	1.300	0.870
CALCIUM	MG/KG	6/6	6	6/6	6810.000-296000.000	124268.33			4340
CHROMIUM	MG/KG	6/6	6	4/6	5.700-24.400	17.70			15.5
COBALT	MG/KG	5/6	6	1/6	7.000-15.500	12.70	3.500	3.500	14.2
COPPER	MG/KG	6/6	6	4/6	7.900-28.900	20.78			14.1
CYANIDE	MG/KG	0/2	2	0/2			0.260	0.290	0.270
IRON	MG/KG	6/6	6	2/6	4410.000-38900.000	20818.33			21700
LEAD	MG/KG	5/5	5	2/5	9.700-117.000	38.66			26.4
MAGNESIUM	MG/KG	6/6	6	6/6	4800.000-32200.000	15923.33			2780
MANGANESE	MG/KG	5/6	6	0/6	226.000-835.000	499.00	0.420	0.420	1350
MERCURY	MG/KG	2/4	4	1/4	0.130-0.340	0.24	0.110	0.110	0.3
MOLYBDENUM	MG/KG	0/6	6	0/6			1.700	3.500	NA
NICKEL	MG/KG	6/6	6	4/6	7.300-40.500	27.72			20.9
POTASSIUM	MG/KG	6/6	6	2/6	679.000-2540.000	1489.67			1230
SELENIUM	MG/KG	0/3	3	0/3			0.420	2.100	0.72
SILICON	MG/KG	3/3	3	0/3	180.000-1330.000	886.67			1800
SILVER	MG/KG	1/6	6	1/6	2.900-2.900	2.90	0.210	2.100	NA

AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	6/6	6	6/6	68.100-2030.000	706.88			51.1
THALLIUM	MG/KG	0/6	6	0/6			0.220	0.510	0.58
VANADIUM	MG/KG	6/6	6	1/6	5.600-34.800	21.30			30.4
ZINC	MG/KG	4/4	4	2/4	33.500-66.100	54.23			59.6

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	3/3	3	1/3	4900.000-12400.000	8943.33			11900
ANTIMONY	MG/KG	0/2	2	0/2			5.500	6.200	NA
ARSENIC	MG/KG	3/3	3	0/3	3.900-6.700	5.70			8.20
BARIUM	MG/KG	3/3	3	2/3	88.800-406.000	270.60			95.7
BERYLLIUM	MG/KG	2/3	3	2/3	0.820-0.940	0.88	1.700	1.700	0.6
CADMIUM	MG/KG	3/3	3	3/3	3.000-4.500	3.63			0.870
CALCIUM	MG/KG	3/3	3	3/3	8440.000-115000.000	75480.00			4340
CHROMIUM	MG/KG	3/3	3	3/3	16.600-23.400	19.90			15.5
COBALT	MG/KG	3/3	3	1/3	7.000-16.500	12.50			14.2
COPPER	MG/KG	3/3	3	2/3	8.500-25.300	18.70			14.1
CYANIDE	MG/KG	0/1	1	0/1			0.270	0.300	0.270
IRON	MG/KG	3/3	3	1/3	8180.000-22400.000	16226.67			21700
LEAD	MG/KG	3/3	3	1/3	15.500-26.700	19.37			26.4
MAGNESIUM	MG/KG	3/3	3	3/3	4680.000-26000.000	17126.67			2780
MANGANESE	MG/KG	3/3	3	0/3	296.000-614.000	405.00			1350
MERCURY	MG/KG	1/1	1	1/1	1.100-1.100	1.10			0.3
MOLYBDENUM	MG/KG	0/3	3	0/3			1.800	2.100	NA
NICKEL	MG/KG	3/3	3	3/3	29.200-41.900	35.27			20.9
POTASSIUM	MG/KG	3/3	3	1/3	571.000-1240.000	953.67			1230
SILVER	MG/KG	2/3	3	2/3	2.600-3.100	2.85	2.100	2.100	NA
SODIUM	MG/KG	3/3	3	3/3	220.000-2220.000	1330.00			51.1
THALLIUM	MG/KG	0/3	3	0/3			0.260	0.390	0.58

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
VANADIUM	MG/KG	3/3	3	0/3	17.700-26.900	21.13			30.4
ZINC	MG/KG	1/1	1	0/1	42.800-42.800	42.80			59.6

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	3/3	3	2/3	9800.000-19400.000	13733.33			11900
ANTIMONY	MG/KG	0/3	3	0/3			1.200	2.300	NA
ARSENIC	MG/KG	3/3	3	1/3	2.600-15.600	8.17			8.20
BARIUM	MG/KG	3/3	3	1/3	62.700-156.000	95.70			95.7
BERYLLIUM	MG/KG	2/3	3	1/3	0.600-1.300	0.95	1.100	1.100	0.6
CADMIUM	MG/KG	0/3	3	0/3			1.100	1.200	0.870
CALCIUM	MG/KG	3/3	3	2/3	3750.000-89600.000	46716.67			4340
CHROMIUM	MG/KG	3/3	3	2/3	15.500-20.300	17.37			15.5
COBALT	MG/KG	3/3	3	1/3	7.200-15.000	10.10			14.2
COPPER	MG/KG	3/3	3	3/3	18.000-24.000	20.33			14.1
CYANIDE	MG/KG	0/1	1	0/1			0.270	0.270	0.270
IRON	MG/KG	3/3	3	2/3	19700.000-33200.000	25400.00			21700
LEAD	MG/KG	3/3	3	0/3	11.000-21.300	16.93			26.4
MAGNESIUM	MG/KG	3/3	3	3/3	4010.000-25900.000	17203.33			2780
MANGANESE	MG/KG	3/3	3	0/3	307.000-637.000	442.00			1350
MERCURY	MG/KG	0/3	3	0/3			0.050	0.110	0.3
MOLYBDENUM	MG/KG	0/3	3	0/3			2.800	3.600	NA
NICKEL	MG/KG	3/3	3	1/3	16.800-21.400	19.57			20.9
POTASSIUM	MG/KG	3/3	3	2/3	960.000-2190.000	1630.00			1230
SELENIUM	MG/KG	0/3	3	0/3			0.470	2.100	0.72
SILICON	MG/KG	3/3	3	0/3	137.000-1200.000	631.67			1800
SILVER	MG/KG	0/3	3	0/3			0.210	1.200	NA

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	3/3	3	3/3	150.000-739.000	354.67			51.1
THALLIUM	MG/KG	0/3	3	0/3			0.210	0.490	0.58
VANADIUM	MG/KG	3/3	3	1/3	16.900-35.600	26.90			30.4
ZINC	MG/KG	3/3	3	1/3	38.100-97.600	61.50			59.6

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	5/5	5	0/5	6460.000-14000.000	11182.00			16100
ANTIMONY	MG/KG	0/4	4	0/4			1.200	2.600	NA
ARSENIC	MG/KG	5/5	5	0/5	1.900-7.100	4.98			9.57
BARIUM	MG/KG	5/5	5	0/5	40.300-95.400	76.84			119
BERYLLIUM	MG/KG	5/5	5	5/5	0.700-1.300	0.85			0.620
CADMIUM	MG/KG	1/5	5	1/5	2.900-2.900	2.90	1.200	1.200	0.910
CALCIUM	MG/KG	5/5	5	0/5	3530.000-146000.000	54786.00			150000
CHROMIUM	MG/KG	5/5	5	0/5	8.500-17.500	14.90			20.7
COBALT	MG/KG	5/5	5	0/5	8.000-14.500	10.88			15.7
COPPER	MG/KG	5/5	5	0/5	9.400-18.700	15.34			20.0
CYANIDE	MG/KG	1/2	2	0/2	0.110-0.110	0.11	0.290	0.290	.17
IRON	MG/KG	5/5	5	0/5	19900.000-24700.000	23080.00			30700
LEAD	MG/KG	5/5	5	4/5	12.500-19.100	17.12			15.6
MAGNESIUM	MG/KG	5/5	5	1/5	2770.000-70100.000	21154.00			42600
MANGANESE	MG/KG	5/5	5	1/5	395.000-3890.000	1223.80			1300
MERCURY	MG/KG	0/5	5	0/5			0.060	0.120	0.29
MOLYBDENUM	MG/KG	1/5	5	0/5	2.400-2.400	2.40	3.000	4.000	2.7
NICKEL	MG/KG	5/5	5	0/5	11.600-22.500	16.12			34.3
POTASSIUM	MG/KG	5/5	5	0/5	721.000-1460.000	1155.80			1980
SELENIUM	MG/KG	1/5	5	1/5	0.820-0.820	0.82	0.440	0.500	NA
SILICON	MG/KG	4/4	4	0/4	389.000-1220.000	816.00			1590
SILVER	MG/KG	1/5	5	1/5	6.600-6.600	6.60	0.240	1.200	NA

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	5/5	5	2/5	102.000-606.000	305.40			285
THALLIUM	MG/KG	0/5	5	0/5			0.240	0.500	0.49
VANADIUM	MG/KG	5/5	5	0/5	15.200-28.700	23.14			37.8
ZINC	MG/KG	5/5	5	0/5	26.800-49.500	38.98			82.0

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	7030.000-11200.000	9115.00			16100
ARSENIC	MG/KG	2/2	2	1/2	4.000-10.200	7.10			9.57
BARIUM	MG/KG	2/2	2	0/2	47.600-64.100	55.85			119
BERYLLIUM	MG/KG	1/2	2	1/2	0.760-0.760	0.76	0.450	0.450	0.620
CADMIUM	MG/KG	2/2	2	2/2	2.600-5.000	3.80			0.910
CALCIUM	MG/KG	2/2	2	0/2	4090.000-88600.000	46345.00			150000
CHROMIUM	MG/KG	2/2	2	0/2	15.800-18.000	16.90			20.7
COBALT	MG/KG	2/2	2	0/2	10.400-12.100	11.25			15.7
COPPER	MG/KG	2/2	2	1/2	17.300-20.600	18.95			20.0
CYANIDE	MG/KG	0/2	2	0/2			0.110	0.110	.17
IRON	MG/KG	2/2	2	0/2	17400.000-30100.000	23750.00			30700
LEAD	MG/KG	2/2	2	1/2	4.600-15.900	10.25			15.6
MAGNESIUM	MG/KG	2/2	2	0/2	3560.000-22500.000	13030.00			42600
MANGANESE	MG/KG	2/2	2	0/2	412.000-577.000	494.50			1300
MERCURY	MG/KG	0/2	2	0/2			0.110	0.110	0.29
MOLYBDENUM	MG/KG	2/2	2	2/2	3.000-3.600	3.30			2.7
NICKEL	MG/KG	2/2	2	0/2	18.600-25.600	22.10			34.3
POTASSIUM	MG/KG	2/2	2	0/2	589.000-1110.000	849.50			1980
SELENIUM	MG/KG	0/2	2	0/2			0.440	0.460	NA
SILVER	MG/KG	2/2	2	2/2	2.300-9.100	5.70			NA
SODIUM	MG/KG	2/2	2	1/2	52.200-385.000	218.60			285
THALLIUM	MG/KG	0/2	2	0/2			0.440	0.460	0.49

05/21/94

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
VANADIUM	MG/KG	2/2	2	0/2	18.900-29.400	24.15			37.8
ZINC	MG/KG	2/2	2	0/2	36.800-43.900	40.35			82.0

000533

05/21/94

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	9/9	9	1/9	6680.000-24700.000	11852.22			16100
ANTIMONY	MG/KG	0/7	7	0/7			1.200	6.200	NA
ARSENIC	MG/KG	9/9	9	3/9	1.200-14.900	6.54			9.57
BARIUM	MG/KG	9/9	9	2/9	30.300-364.000	126.04			119
BERYLLIUM	MG/KG	7/9	9	6/9	0.360-0.980	0.77	1.200	1.200	0.620
CADMIUM	MG/KG	3/9	9	3/9	2.100-4.500	3.03	1.200	1.200	0.910
CALCIUM	MG/KG	9/9	9	0/9	4110.000-85000.000	40820.00			150000
CHROMIUM	MG/KG	9/9	9	2/9	10.900-28.400	16.79			20.7
COBALT	MG/KG	8/9	9	1/9	8.100-21.100	11.79	4.900	4.900	15.7
COPPER	MG/KG	9/9	9	2/9	9.900-27.900	17.14			20.0
CYANIDE	MG/KG	0/5	5	0/5			0.110	0.310	.17
IRON	MG/KG	9/9	9	1/9	9720.000-42600.000	21902.22			30700
LEAD	MG/KG	9/9	9	3/9	7.700-29.200	14.74			15.6
MAGNESIUM	MG/KG	9/9	9	0/9	3170.000-37100.000	16118.89			42600
MANGANESE	MG/KG	9/9	9	2/9	227.000-1500.000	747.22			1300
MERCURY	MG/KG	1/9	9	0/9	0.240-0.240	0.24	0.060	0.120	0.29
MOLYBDENUM	MG/KG	0/9	9	0/9			2.100	4.200	2.7
NICKEL	MG/KG	9/9	9	0/9	9.500-27.400	21.08			34.3
POTASSIUM	MG/KG	9/9	9	2/9	472.000-3560.000	1179.67			1980
SELENIUM	MG/KG	1/8	8	1/8	1.200-1.200	1.20	0.460	0.500	NA
SILICON	MG/KG	6/6	6	0/6	128.000-1130.000	717.17			1590
SILVER	MG/KG	2/9	9	2/9	2.200-3.500	2.85	0.240	2.200	NA

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	9/9	9	4/9	57.100-1600.000	360.40			285
THALLIUM	MG/KG	0/9	9	0/9			0.240	0.500	0.49
VANADIUM	MG/KG	9/9	9	2/9	10.400-49.700	27.94			37.8
ZINC	MG/KG	8/8	8	0/8	39.900-67.100	49.24			82.0

000535

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	6/6	6	0/6	2450.000-10500.000	7898.33			16100
ANTIMONY	MG/KG	0/4	4	0/4			1.200	35.100	NA
ARSENIC	MG/KG	6/6	6	0/6	2.400-7.600	3.88			9.57
BARIUM	MG/KG	6/6	6	1/6	23.400-3610.000	635.57			119
BERYLLIUM	MG/KG	4/6	6	2/6	0.530-0.990	0.72	1.200	2.300	0.620
CADMIUM	MG/KG	3/6	6	3/6	4.200-7.900	6.00	1.200	1.200	0.910
CALCIUM	MG/KG	6/6	6	1/6	74800.000-200000.000	116066.67			150000
CHROMIUM	MG/KG	6/6	6	1/6	11.200-32.900	18.17			20.7
COBALT	MG/KG	5/6	6	0/6	8.300-12.300	10.14	11.700	11.700	15.7
COPPER	MG/KG	6/6	6	2/6	11.100-24.000	19.08			20.0
CYANIDE	MG/KG	0/4	4	0/4			0.110	0.330	.17
IRON	MG/KG	6/6	6	0/6	8750.000-26300.000	18508.33			30700
LEAD	MG/KG	6/6	6	1/6	5.400-16.900	9.58			15.6
MAGNESIUM	MG/KG	6/6	6	0/6	20000.000-39300.000	30300.00			42600
MANGANESE	MG/KG	6/6	6	0/6	361.000-526.000	445.83			1300
MERCURY	MG/KG	1/6	6	0/6	0.220-0.220	0.22	0.060	0.110	0.29
MOLYBDENUM	MG/KG	1/6	6	1/6	3.300-3.300	3.30	2.100	11.700	2.7
NICKEL	MG/KG	6/6	6	0/6	13.400-25.900	22.42			34.3
POTASSIUM	MG/KG	6/6	6	1/6	273.000-3120.000	1489.33			1980
SELENIUM	MG/KG	1/5	5	1/5	2.800-2.800	2.80	0.410	0.500	NA
SILICON	MG/KG	3/3	3	0/3	148.000-1030.000	692.67			1590
SILVER	MG/KG	2/6	6	2/6	8.200-31.100	19.65	0.240	2.100	NA

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
SODIUM	MG/KG	6/6	6	2/6	133.000-1700.000	451.17			285
THALLIUM	MG/KG	0/6	6	0/6			0.240	0.500	0.49
VANADIUM	MG/KG	6/6	6	0/6	15.400-22.700	19.38			37.8
ZINC	MG/KG	5/5	5	0/5	22.200-56.300	44.44			82.0

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	7140.000-7140.000	7140.00			16100
ARSENIC	MG/KG	1/1	1	0/1	4.600-4.600	4.60			9.57
BARIUM	MG/KG	1/1	1	0/1	25.200-25.200	25.20			119
BERYLLIUM	MG/KG	1/1	1	1/1	0.660-0.660	0.66			0.620
CADMIUM	MG/KG	1/1	1	1/1	5.100-5.100	5.10			0.910
CALCIUM	MG/KG	1/1	1	0/1	99700.000-99700.000	99700.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	12.800-12.800	12.80			20.7
COBALT	MG/KG	1/1	1	0/1	9.600-9.600	9.60			15.7
COPPER	MG/KG	1/1	1	0/1	18.700-18.700	18.70			20.0
CYANIDE	MG/KG	0/1	1	0/1	-		0.110	0.110	.17
IRON	MG/KG	1/1	1	0/1	18100.000-18100.000	18100.00			30700
LEAD	MG/KG	1/1	1	0/1	8.400-8.400	8.40			15.6
MAGNESIUM	MG/KG	1/1	1	0/1	23100.000-23100.000	23100.00			42600
MANGANESE	MG/KG	1/1	1	0/1	440.000-440.000	440.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.29
MOLYBDENUM	MG/KG	1/1	1	0/1	2.600-2.600	2.60			2.7
NICKEL	MG/KG	1/1	1	0/1	23.600-23.600	23.60			34.3
POTASSIUM	MG/KG	1/1	1	0/1	1160.000-1160.000	1160.00			1980
SELENIUM	MG/KG	0/1	1	0/1			0.460	0.460	NA
SILVER	MG/KG	1/1	1	1/1	8.900-8.900	8.90			NA
SODIUM	MG/KG	1/1	1	0/1	159.000-159.000	159.00			28
THALLIUM	MG/KG	0/1	1	0/1			0.460	0.460	0.49

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
VANADIUM	MG/KG	1/1	1	0/1	17.200-17.200	17.20			37.8
ZINC	MG/KG	1/1	1	0/1	40.700-40.700	40.70			82.0

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/6	6	1/6	1.000-1.000	1.00	6.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/6	6	0/6			6.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/6	6	0/6			6.000	13.000	
1,1-DICHLOROETHANE	UG/KG	1/6	6	1/6	4.000-4.000	4.00	6.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/6	6	0/6			6.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/6	6	0/6			6.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/6	6	1/6	19.000-19.000	19.00	6.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/6	6	0/6			6.000	13.000	
2-BUTANONE	UG/KG	0/5	5	0/5			10.000	13.000	
2-HEXANONE	UG/KG	0/5	5	0/5			10.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/5	5	0/5			10.000	13.000	
ACETONE	UG/KG	0/6	6	0/6			10.000	13.000	
BENZENE	UG/KG	0/6	6	0/6			6.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/6	6	0/6			6.000	13.000	
BROMOFORM	UG/KG	0/6	6	0/6			6.000	13.000	
BROMOMETHANE	UG/KG	0/6	6	0/6			10.000	13.000	
CARBON DISULFIDE	UG/KG	0/6	6	0/6			6.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/6	6	0/6			6.000	13.000	
CHLOROBENZENE	UG/KG	0/6	6	0/6			6.000	13.000	
CHLOROETHANE	UG/KG	0/6	6	0/6			10.000	13.000	
CHLOROFORM	UG/KG	0/6	6	0/6			6.000	13.000	
CHLOROMETHANE	UG/KG	0/5	5	0/5			10.000	13.000	

AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			6.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/6	6	0/6			6.000	13.000	
ETHYLBENZENE	UG/KG	0/6	6	0/6			6.000	13.000	
METHYLENE CHLORIDE	UG/KG	0/6	6	0/6			7.000	41.000	
STYRENE	UG/KG	0/6	6	0/6			6.000	13.000	
TETRACHLOROETHENE	UG/KG	3/6	6	3/6	1.000-52.000	18.33	6.000	13.000	
TOLUENE	UG/KG	0/6	6	0/6			6.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			6.000	13.000	
TRICHLOROETHENE	UG/KG	3/6	6	3/6	3.000-34.000	14.00	6.000	13.000	
VINYL ACETATE	UG/KG	0/6	6	0/6			10.000	13.000	
VINYL CHLORIDE	UG/KG	0/6	6	0/6			10.000	13.000	
XYLENES, TOTAL	UG/KG	0/6	6	0/6			6.000	13.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			5.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			5.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			5.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			5.000	6.000	
1,1-DICHLOROETHENE	UG/KG	1/3	3	1/3	4.000-4.000	4.00	5.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			5.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/3	3	1/3	2.000-2.000	2.00	5.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			5.000	6.000	
2-BUTANONE	UG/KG	0/3	3	0/3			11.000	49.000	
2-HEXANONE	UG/KG	0/3	3	0/3			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/3	3	0/3			11.000	12.000	
ACETONE	UG/KG	0/3	3	0/3			11.000	12.000	
BENZENE	UG/KG	1/3	3	1/3	5.000-5.000	5.00	5.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			5.000	6.000	
BROMOFORM	UG/KG	0/3	3	0/3			5.000	6.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			5.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			5.000	6.000	
CHLOROBENZENE	UG/KG	1/3	3	1/3	5.000-5.000	5.00	5.000	6.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			5.000	6.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			5.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			5.000	6.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			5.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/3	3	0/3			10.000	20.000	
STYRENE	UG/KG	0/3	3	0/3			5.000	6.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			5.000	6.000	
TOLUENE	UG/KG	2/3	3	2/3	1.000-5.000	3.00	5.000	5.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			5.000	6.000	
TRICHLOROETHENE	UG/KG	2/3	3	2/3	4.000-5.000	4.50	5.000	5.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			5.000	6.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/3	3	1/3	3.000-3.000	3.00	11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			11.000	12.000	
2-BUTANONE	UG/KG	2/2	2	2/2	2.000-20.000	11.00	11.000	11.000	
2-HEXANONE	UG/KG	0/2	2	0/2			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			11.000	12.000	
ACETONE	UG/KG	1/3	3	1/3	120.000-120.000	120.00	11.000	12.000	
BENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/3	3	0/3			11.000	38.000	
STYRENE	UG/KG	0/3	3	0/3			11.000	12.000	
TETRACHLOROETHENE	UG/KG	1/3	3	1/3	9.000-9.000	9.00	11.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRICHLOROETHENE	UG/KG	1/3	3	1/3	2.000-2.000	2.00	11.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	1/4	4	1/4	3.000-3.000	3.00	12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	2/4	4	2/4	4.000-6.000	5.00	12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			12.000	12.000	
2-BUTANONE	UG/KG	1/3	3	1/3	2.000-2.000	2.00	12.000	12.000	
2-HEXANONE	UG/KG	0/3	3	0/3			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/3	3	0/3			12.000	12.000	
ACETONE	UG/KG	1/4	4	1/4	58.000-58.000	58.00	12.000	12.000	
BENZENE	UG/KG	0/4	4	0/4			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
BROMOFORM	UG/KG	0/4	4	0/4			12.000	12.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			12.000	12.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			12.000	12.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
CHLOROFORM	UG/KG	0/4	4	0/4			12.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			12.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			12.000	49.000	
STYRENE	UG/KG	0/4	4	0/4			12.000	12.000	
TETRACHLOROETHENE	UG/KG	2/4	4	2/4	19.000-42.000	30.50	12.000	12.000	
TOLUENE	UG/KG	1/4	4	1/4	1.000-1.000	1.00	12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			12.000	12.000	
TRICHLOROETHENE	UG/KG	2/4	4	2/4	4.000-20.000	12.00	12.000	12.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			12.000	12.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/1	1	1/1	1000.000-1000.000	1000.00			
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/1	1	1/1	44.000-44.000	44.00			
1,1,2-TRICHLOROETHANE	UG/KG	1/1	1	1/1	1.000-1.000	1.00			
1,1-DICHLOROETHANE	UG/KG	1/1	1	1/1	16.000-16.000	16.00			
1,1-DICHLOROETHENE	UG/KG	1/1	1	1/1	20.000-20.000	20.00			
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/1	1	1/1	14.000-14.000	14.00			
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			22.000	22.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			57.000	57.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	1/1	1	1/1	1.000-1.000	1.00			
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	1/1	1	1/1	2.000-2.000	2.00			
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	1/1	1	1/1	6300.000-6300.000	6300.00			
TOLUENE	UG/KG	1/1	1	1/1	2.000-2.000	2.00			
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	1/1	1	1/1	83.000-83.000	83.00			
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	4/8	8	4/8	2.000-1500.000	489.25	12.000	770.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	3/8	8	3/8	2.000-47.000	23.33	12.000	770.000	
1,1,2-TRICHLOROETHANE	UG/KG	2/8	8	2/8	1.000-2.000	1.50	12.000	770.000	
1,1-DICHLOROETHANE	UG/KG	6/8	8	6/8	1.000-33.000	11.67	12.000	770.000	
1,1-DICHLOROETHENE	UG/KG	2/8	8	2/8	44.000-54.000	49.00	12.000	770.000	
1,2-DICHLOROETHANE	UG/KG	2/8	8	2/8	2.000-2.000	2.00	12.000	770.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6/8	8	6/8	3.000-17.000	12.33	12.000	770.000	
1,2-DICHLOROPROPANE	UG/KG	0/8	8	0/8			6.000	770.000	
2-BUTANONE	UG/KG	2/6	6	2/6	2.000-15.000	8.50	12.000	16.000	
2-HEXANONE	UG/KG	0/6	6	0/6			11.000	1600.000	
4-METHYL-2-PENTANONE	UG/KG	0/6	6	0/6			11.000	1500.000	
ACETONE	UG/KG	2/8	8	2/8	44.000-61.000	52.50	12.000	61.000	
BENZENE	UG/KG	0/8	8	0/8			6.000	770.000	
BROMODICHLOROMETHANE	UG/KG	0/8	8	0/8			6.000	770.000	
BROMOFORM	UG/KG	0/8	8	0/8			6.000	770.000	
BROMOMETHANE	UG/KG	0/8	8	0/8			11.000	1600.000	
CARBON DISULFIDE	UG/KG	1/8	8	1/8	2.000-2.000	2.00	6.000	720.000	
CARBON TETRACHLORIDE	UG/KG	0/8	8	0/8			6.000	770.000	
CHLOROBENZENE	UG/KG	0/8	8	0/8			6.000	770.000	
CHLOROETHANE	UG/KG	0/8	8	0/8			11.000	1600.000	
CHLOROFORM	UG/KG	2/8	8	2/8	2.000-3.000	2.50	12.000	12.000	
CHLOROMETHANE	UG/KG	0/6	6	0/6			11.000	1600.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/8	8	0/8			6.000	770.000	
DIBROMOCHLOROMETHANE	UG/KG	0/8	8	0/8			6.000	770.000	
ETHYLBENZENE	UG/KG	0/8	8	0/8			6.000	770.000	
METHYLENE CHLORIDE	UG/KG	0/8	8	0/8			6.000	40.000	
STYRENE	UG/KG	0/8	8	0/8			6.000	770.000	
TETRACHLOROETHENE	UG/KG	7/8	8	7/8	2.000-21000.000	3810.29	12.000	12.000	
TOLUENE	UG/KG	0/8	8	0/8			6.000	770.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/8	8	0/8			6.000	770.000	
TRICHLOROETHENE	UG/KG	6/8	8	6/8	2.000-37.000	15.17	12.000	770.000	
VINYL ACETATE	UG/KG	0/8	8	0/8			11.000	1600.000	
VINYL CHLORIDE	UG/KG	2/8	8	2/8	7.000-9.000	8.00	12.000	1600.000	
XYLENES, TOTAL	UG/KG	0/8	8	0/8			6.000	770.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	3/6	6	3/6	9.000-15.000	12.33	6.000	1600.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/6	6	1/6	19.000-19.000	19.00	6.000	1600.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/6	6	0/6			6.000	1600.000	
1,1-DICHLOROETHANE	UG/KG	4/6	6	4/6	2.000-11.000	4.75	6.000	1600.000	
1,1-DICHLOROETHENE	UG/KG	2/6	6	2/6	1.000-10.000	5.50	6.000	1600.000	
1,2-DICHLOROETHANE	UG/KG	1/6	6	1/6	2.000-2.000	2.00	6.000	1600.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	4/6	6	4/6	10.000-1600.000	418.75	6.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/6	6	0/6			6.000	1600.000	
2-BUTANONE	UG/KG	0/5	5	0/5			11.000	3400.000	
2-HEXANONE	UG/KG	0/5	5	0/5			11.000	3400.000	
4-METHYL-2-PENTANONE	UG/KG	0/5	5	0/5			11.000	3400.000	
ACETONE	UG/KG	1/6	6	1/6	8.000-8.000	8.00	12.000	3400.000	
BENZENE	UG/KG	0/6	6	0/6			6.000	1600.000	
BROMODICHLOROMETHANE	UG/KG	0/6	6	0/6			6.000	1600.000	
BROMOFORM	UG/KG	0/6	6	0/6			6.000	1600.000	
BROMOMETHANE	UG/KG	0/6	6	0/6			11.000	3400.000	
CARBON DISULFIDE	UG/KG	1/6	6	1/6	1.000-1.000	1.00	6.000	1600.000	
CARBON TETRACHLORIDE	UG/KG	0/6	6	0/6			6.000	1600.000	
CHLOROBENZENE	UG/KG	0/6	6	0/6			6.000	1600.000	
CHLOROETHANE	UG/KG	0/6	6	0/6			11.000	3400.000	
CHLOROFORM	UG/KG	0/6	6	0/6			6.000	1600.000	
CHLOROMETHANE	UG/KG	0/5	5	0/5			11.000	3400.000	

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			6.000	1600.000	
DIBROMOCHLOROMETHANE	UG/KG	0/6	6	0/6			6.000	1600.000	
ETHYLBENZENE	UG/KG	0/6	6	0/6			6.000	1600.000	
METHYLENE CHLORIDE	UG/KG	0/6	6	0/6			9.000	6700.000	
STYRENE	UG/KG	0/6	6	0/6			6.000	1600.000	
TETRACHLOROETHENE	UG/KG	5/6	6	5/6	1.000-17000.000	4170.00	6.000	6.000	
TOLUENE	UG/KG	1/6	6	1/6	1.000-1.000	1.00	6.000	1600.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			6.000	1600.000	
TRICHLOROETHENE	UG/KG	5/6	6	5/6	2.000-2000.000	411.80	6.000	6.000	
VINYL ACETATE	UG/KG	0/6	6	0/6			11.000	3400.000	
VINYL CHLORIDE	UG/KG	1/6	6	1/6	2.000-2.000	2.00	11.000	3400.000	
XYLENES, TOTAL	UG/KG	1/6	6	1/6	31000.000-31000.000	31000.00	6.000	12.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			6.000	6.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	1/1	1	1/1	45.000-45.000	45.00	11.000	11.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	1/1	1	1/1	4.000-4.000	4.00			
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	1/1	1	1/1	1.000-1.000	1.00			
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			17.000	17.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	0/1	1	0/1			10.000	10.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/6	6	0/6			340.000	1100.000	
1,2-DICHLOROBENZENE	UG/KG	0/6	6	0/6			340.000	1100.000	
1,3-DICHLOROBENZENE	UG/KG	0/6	6	0/6			340.000	1100.000	
1,4-DICHLOROBENZENE	UG/KG	0/6	6	0/6			340.000	1100.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/6	6	0/6			850.000	5500.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	
2,4-DICHLOROPHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	
2,4-DIMETHYLPHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	
2,4-DINITROPHENOL	UG/KG	0/6	6	0/6			850.000	5500.000	
2,4-DINITROTOLUENE	UG/KG	0/6	6	0/6			340.000	1100.000	
2,6-DINITROTOLUENE	UG/KG	0/6	6	0/6			340.000	1100.000	
2-CHLORONAPHTHALENE	UG/KG	0/6	6	0/6			340.000	1100.000	
2-CHLOROPHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	
2-METHYLNAPHTHALENE	UG/KG	1/6	6	1/6	58.000-58.000	58.00	380.000	1100.000	
2-METHYLPHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	
2-NITROANILINE	UG/KG	0/6	6	0/6			850.000	5500.000	
2-NITROPHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/6	6	0/6			340.000	2300.000	
3-NITROANILINE	NONE	0/6	6	0/6			850.000	5500.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/6	6	0/6			850.000	5500.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/6	6	0/6			340.000	1100.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/6	6	0/6			340.000	1100.000	
4-METHYLPHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	
4-NITROANILINE	UG/KG	0/6	6	0/6			850.000	5500.000	
4-NITROPHENOL	UG/KG	0/6	6	0/6			850.000	5500.000	
ACENAPHTHENE	UG/KG	3/6	6	3/6	110.000-1600.000	903.33	380.000	430.000	
ACENAPHTHYLENE	UG/KG	0/6	6	0/6			340.000	1100.000	
ANTHRACENE	UG/KG	3/6	6	3/6	170.000-2800.000	1690.00	380.000	430.000	
BENZO(A)ANTHRACENE	UG/KG	3/6	6	3/6	660.000-6300.000	4120.00	380.000	430.000	
BENZO(A)PYRENE	UG/KG	3/6	6	3/6	470.000-6000.000	3856.67	380.000	430.000	
BENZO(B)FLUORANTHENE	UG/KG	2/6	6	2/6	4700.000-6100.000	5400.00	380.000	430.000	
BENZO(G,H,I)PERYLENE	UG/KG	3/6	6	3/6	400.000-3700.000	2533.33	380.000	430.000	
BENZO(K)FLUORANTHENE	UG/KG	3/6	6	3/6	730.000-5000.000	2876.67	380.000	430.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			850.000	5500.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			340.000	1100.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/6	6	0/6			340.000	1100.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/6	6	0/6			340.000	1100.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/6	6	0/6			340.000	1100.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/6	6	2/6	46.000-71.000	58.50	340.000	1100.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/6	6	0/6			340.000	1100.000	
CARBAZOLE	UG/KG	0/2	2	0/2			380.000	430.000	
CHRYSENE	UG/KG	3/6	6	3/6	860.000-7800.000	5286.67	380.000	430.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/6	6	2/6	44.000-53.000	48.50	340.000	1100.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/6	6	0/6			340.000	1100.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/6	6	2/6	1500.000-1500.000	1500.00	380.000	430.000	
DIBENZOFURAN	UG/KG	3/6	6	3/6	55.000-640.000	405.00	380.000	430.000	
DIETHYL PHTHALATE	UG/KG	0/6	6	0/6			340.000	1100.000	
DIMETHYL PHTHALATE	UG/KG	0/6	6	0/6			340.000	1100.000	
FLUORANTHENE	UG/KG	4/6	6	4/6	43.000-19000.000	7635.75	380.000	430.000	
FLUORENE	UG/KG	3/6	6	3/6	130.000-1700.000	943.33	380.000	430.000	
HEXACHLOROBENZENE	UG/KG	0/6	6	0/6			340.000	1100.000	
HEXACHLOROBUTADIENE	UG/KG	0/6	6	0/6			340.000	1100.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/6	6	0/6			340.000	1100.000	
HEXACHLOROETHANE	UG/KG	0/6	6	0/6			340.000	1100.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	3/6	6	3/6	280.000-4800.000	2660.00	380.000	430.000	
ISOPHORONE	UG/KG	0/6	6	0/6			340.000	1100.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/6	6	0/6			340.000	1100.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/6	6	0/6			340.000	1100.000	
NAPHTHALENE	UG/KG	1/6	6	1/6	180.000-180.000	180.00	380.000	1100.000	
NITROBENZENE	UG/KG	0/6	6	0/6			340.000	1100.000	
P-CHLOROANILINE	UG/KG	0/6	6	0/6			340.000	1100.000	
PENTACHLOROPHENOL	UG/KG	0/6	6	0/6			850.000	5500.000	
PHENANTHRENE	UG/KG	3/6	6	3/6	950.000-13000.000	7583.33	380.000	430.000	
PHENOL	UG/KG	0/6	6	0/6			340.000	1100.000	
PYRENE	UG/KG	3/6	6	3/6	1400.000-15000.000	8800.00	380.000	430.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			1700.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			350.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			1700.000	2000.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			350.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			350.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			350.000	420.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			350.000	420.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	420.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			1700.000	2000.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			350.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			710.000	840.000	
3-NITROANILINE	NONE	0/3	3	0/3			1700.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			1700.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			350.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	420.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			350.000	420.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	420.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			1700.000	2000.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			1700.000	2000.000	
ACENAPHTHENE	UG/KG	1/3	3	1/3	110.000-110.000	110.00	390.000	420.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			350.000	420.000	
ANTHRACENE	UG/KG	2/3	3	2/3	60.000-290.000	175.00	390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	2/3	3	2/3	430.000-580.000	505.00	390.000	390.000	
BENZO(A)PYRENE	UG/KG	2/3	3	2/3	320.000-520.000	420.00	390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	1/3	3	1/3	540.000-540.000	540.00	390.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/3	3	2/3	230.000-440.000	335.00	390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	2/3	3	2/3	510.000-550.000	530.00	390.000	390.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			1700.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			350.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			350.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			350.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			350.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/3	3	1/3	58.000-58.000	58.00	350.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	420.000	
CHRYSENE	UG/KG	2/3	3	2/3	550.000-790.000	670.00	390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/3	3	1/3	46.000-46.000	46.00	390.000	420.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	420.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	1/3	3	1/3	140.000-140.000	140.00	390.000	420.000	
DIBENZOFURAN	UG/KG	1/3	3	1/3	72.000-72.000	72.00	390.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	420.000	
FLUORANTHENE	UG/KG	2/3	3	2/3	940.000-1600.000	1270.00	390.000	390.000	
FLUORENE	UG/KG	2/3	3	2/3	44.000-160.000	102.00	390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			350.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			350.000	420.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			350.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/3	3	2/3	160.000-330.000	245.00	390.000	390.000	
ISOPHORONE	UG/KG	0/3	3	0/3			350.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			350.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			350.000	420.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			350.000	420.000	
NITROBENZENE	UG/KG	0/3	3	0/3			350.000	420.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			350.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			1700.000	2000.000	
PHENANTHRENE	UG/KG	2/3	3	2/3	480.000-1300.000	890.00	390.000	390.000	
PHENOL	UG/KG	1/3	3	1/3	69.000-69.000	69.00	350.000	420.000	
PYRENE	UG/KG	2/3	3	2/3	860.000-1300.000	1080.00	390.000	390.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			880.000	980.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			350.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			880.000	980.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			350.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			350.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			350.000	410.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			350.000	410.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	410.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			880.000	980.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			350.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			350.000	410.000	
3-NITROANILINE	NONE	0/3	3	0/3			880.000	980.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			880.000	980.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			350.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	410.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			350.000	410.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	410.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			880.000	980.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			880.000	980.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			350.000	410.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			350.000	410.000	
ANTHRACENE	UG/KG	0/3	3	0/3			350.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/3	3	0/3			350.000	410.000	
BENZO(A)PYRENE	UG/KG	0/3	3	0/3			350.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/3	3	0/3			350.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			350.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/3	3	0/3			350.000	410.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			880.000	880.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			350.000	350.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			350.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			350.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			350.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/3	3	0/3			350.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	410.000	
CARBAZOLE	UG/KG	0/2	2	0/2			390.000	410.000	
CHRYSENE	UG/KG	0/3	3	0/3			350.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/3	3	1/3	56.000-56.000	56.00	350.000	390.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			350.000	410.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			350.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	410.000	
FLUORANTHENE	UG/KG	0/3	3	0/3			350.000	410.000	
FLUORENE	UG/KG	0/3	3	0/3			350.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			350.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			350.000	410.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			350.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			350.000	410.000	
ISOPHORONE	UG/KG	0/3	3	0/3			350.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			350.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			350.000	410.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			350.000	410.000	
NITROBENZENE	UG/KG	0/3	3	0/3			350.000	410.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			350.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			880.000	980.000	
PHENANTHRENE	UG/KG	0/3	3	0/3			350.000	410.000	
PHENOL	UG/KG	0/3	3	0/3			350.000	410.000	
PYRENE	UG/KG	0/3	3	0/3			350.000	410.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/5	5	0/5			390.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/5	5	0/5			390.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/5	5	0/5			390.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/5	5	0/5			390.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/5	5	0/5			980.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/5	5	0/5			980.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/5	5	0/5			390.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/5	5	0/5			390.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/5	5	0/5			390.000	420.000	
2-CHLOROPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/5	5	0/5			390.000	420.000	
2-METHYLPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
2-NITROANILINE	UG/KG	0/5	5	0/5			980.000	1900.000	
2-NITROPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/5	5	0/5			390.000	780.000	
3-NITROANILINE	NONE	0/5	5	0/5			980.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/5	5	0/5			980.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/5	5	0/5			390.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/5	5	0/5			390.000	420.000	
4-METHYLPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
4-NITROANILINE	UG/KG	0/5	5	0/5			980.000	1900.000	
4-NITROPHENOL	UG/KG	0/5	5	0/5			980.000	1900.000	
ACENAPHTHENE	UG/KG	0/5	5	0/5			390.000	420.000	
ACENAPHTHYLENE	UG/KG	0/5	5	0/5			390.000	420.000	
ANTHRACENE	UG/KG	0/5	5	0/5			390.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/5	5	0/5			390.000	420.000	
BENZO(A)PYRENE	UG/KG	0/5	5	0/5			390.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/5	5	0/5			390.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/5	5	0/5			390.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/5	5	0/5			390.000	420.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			980.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			390.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/5	5	0/5			390.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/5	5	0/5			390.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/5	5	0/5			390.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/5	5	0/5			390.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/5	5	0/5			390.000	420.000	
CARBAZOLE	UG/KG	0/3	3	0/3			410.000	420.000	
CHRYSENE	UG/KG	0/5	5	0/5			390.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/5	5	2/5	43.000-64.000	53.50	390.000	410.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/5	5	0/5			390.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/5	5	0/5			390.000	420.000	
DIBENZOFURAN	UG/KG	0/5	5	0/5			390.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/5	5	0/5			390.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/5	5	0/5			390.000	420.000	
FLUORANTHENE	UG/KG	0/5	5	0/5			390.000	420.000	
FLUORENE	UG/KG	0/5	5	0/5			390.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/5	5	0/5			390.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/5	5	0/5			390.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/5	5	0/5			390.000	420.000	
HEXACHLOROETHANE	UG/KG	0/5	5	0/5			390.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/5	5	0/5			390.000	420.000	
ISOPHORONE	UG/KG	0/5	5	0/5			390.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/5	5	0/5			390.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/5	5	0/5			390.000	420.000	
NAPHTHALENE	UG/KG	0/5	5	0/5			390.000	420.000	
NITROBENZENE	UG/KG	0/5	5	0/5			390.000	420.000	
P-CHLOROANILINE	UG/KG	0/5	5	0/5			390.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
PHENANTHRENE	UG/KG	0/5	5	0/5			980.000	1900.000	
PHENOL	UG/KG	0/5	5	0/5			390.000	420.000	
PYRENE	UG/KG	0/5	5	0/5			390.000	420.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			390.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			390.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			390.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			390.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			390.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			390.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			390.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			390.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			390.000	390.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			390.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			390.000	390.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			390.000	390.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			390.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			770.000	790.000	
3-NITROANILINE	NONE	0/2	2	0/2			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			390.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			390.000	390.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			390.000	390.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			390.000	390.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			390.000	390.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			390.000	390.000	
ANTHRACENE	UG/KG	0/2	2	0/2			390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			390.000	390.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			390.000	390.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			390.000	390.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			1900.000	1900.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			390.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			390.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/2	2	1/2	47.000-47.000	47.00	390.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			390.000	390.000	
CHRYSENE	UG/KG	0/2	2	0/2			390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			390.000	390.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			390.000	390.000	

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			390.000	390.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			390.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			390.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			390.000	390.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			390.000	390.000	
FLUORENE	UG/KG	0/2	2	0/2			390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			390.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			390.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			390.000	390.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			390.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			390.000	390.000	
ISOPHORONE	UG/KG	0/2	2	0/2			390.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			390.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			390.000	390.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			390.000	390.000	
NITROBENZENE	UG/KG	0/2	2	0/2			390.000	390.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			390.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			1900.000	1900.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			390.000	390.000	
PHENOL	UG/KG	0/2	2	0/2			390.000	390.000	
PYRENE	UG/KG	0/2	2	0/2			390.000	390.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/9	9	0/9			390.000	430.000	
1,2-DICHLOROBENZENE	UG/KG	0/9	9	0/9			390.000	430.000	
1,3-DICHLOROBENZENE	UG/KG	0/9	9	0/9			390.000	430.000	
1,4-DICHLOROBENZENE	UG/KG	0/9	9	0/9			390.000	430.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/9	9	0/9			960.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/9	9	0/9			390.000	430.000	
2,4-DICHLOROPHENOL	UG/KG	0/9	9	0/9			390.000	430.000	
2,4-DIMETHYLPHENOL	UG/KG	0/9	9	0/9			390.000	430.000	
2,4-DINITROPHENOL	UG/KG	0/9	9	0/9			960.000	2000.000	
2,4-DINITROTOLUENE	UG/KG	0/9	9	0/9			390.000	430.000	
2,6-DINITROTOLUENE	UG/KG	0/9	9	0/9			390.000	430.000	
2-CHLORONAPHTHALENE	UG/KG	0/9	9	0/9			390.000	430.000	
2-CHLOROPHENOL	UG/KG	0/9	9	0/9			390.000	430.000	
2-METHYLNAPHTHALENE	UG/KG	0/9	9	0/9			390.000	430.000	
2-METHYLPHENOL	UG/KG	0/9	9	0/9			390.000	430.000	
2-NITROANILINE	UG/KG	0/9	9	0/9			960.000	2000.000	
2-NITROPHENOL	UG/KG	0/9	9	0/9			390.000	430.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/9	9	0/9			400.000	840.000	
3-NITROANILINE	NONE	0/9	9	0/9			960.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/9	9	0/9			960.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/9	9	0/9			390.000	430.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/9	9	0/9			390.000	430.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/9	9	0/9			390.000	430.000	
4-METHYLPHENOL	UG/KG	0/9	9	0/9			390.000	430.000	
4-NITROANILINE	UG/KG	0/9	9	0/9			960.000	2000.000	
4-NITROPHENOL	UG/KG	0/9	9	0/9			960.000	2000.000	
ACENAPHTHENE	UG/KG	0/9	9	0/9			390.000	430.000	
ACENAPHTHYLENE	UG/KG	0/9	9	0/9			390.000	430.000	
ANTHRACENE	UG/KG	0/9	9	0/9			390.000	430.000	
BENZO(A)ANTHRACENE	UG/KG	1/9	9	1/9	100.000-100.000	100.00	390.000	430.000	
BENZO(A)PYRENE	UG/KG	1/9	9	1/9	100.000-100.000	100.00	390.000	430.000	
BENZO(B)FLUORANTHENE	UG/KG	1/9	9	1/9	110.000-110.000	110.00	390.000	430.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/9	9	0/9			390.000	430.000	
BENZO(K)FLUORANTHENE	UG/KG	1/9	9	1/9	98.000-98.000	98.00	390.000	430.000	
BENZOIC ACID	UG/KG	1/5	5	1/5	59.000-59.000	59.00	1000.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/5	5	0/5			390.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/9	9	0/9			390.000	430.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/9	9	0/9			390.000	430.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/9	9	0/9			390.000	430.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/9	9	1/9	810.000-810.000	810.00	390.000	430.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/8	8	0/8			390.000	430.000	
CARBAZOLE	UG/KG	0/4	4	0/4			400.000	430.000	
CHRYSENE	UG/KG	1/9	9	1/9	140.000-140.000	140.00	390.000	430.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/9	9	2/9	57.000-1400.000	728.50	390.000	430.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/9	9	0/9			390.000	430.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/9	9	0/9			390.000	430.000	
DIBENZOFURAN	UG/KG	0/9	9	0/9			390.000	430.000	
DIETHYL PHTHALATE	UG/KG	0/9	9	0/9			390.000	430.000	
DIMETHYL PHTHALATE	UG/KG	0/9	9	0/9			390.000	430.000	
FLUORANTHENE	UG/KG	2/9	9	2/9	94.000-280.000	187.00	390.000	430.000	
FLUORENE	UG/KG	0/9	9	0/9			390.000	430.000	
HEXACHLOROBENZENE	UG/KG	0/9	9	0/9			390.000	430.000	
HEXACHLOROBUTADIENE	UG/KG	0/9	9	0/9			390.000	430.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/9	9	0/9			390.000	430.000	
HEXACHLOROETHANE	UG/KG	0/9	9	0/9			390.000	430.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/9	9	1/9	99.000-99.000	99.00	390.000	430.000	
ISOPHORONE	UG/KG	0/9	9	0/9			390.000	430.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/9	9	0/9			390.000	430.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/9	9	0/9			390.000	430.000	
NAPHTHALENE	UG/KG	0/9	9	0/9			390.000	430.000	
NITROBENZENE	UG/KG	0/9	9	0/9			390.000	430.000	
P-CHLOROANILINE	UG/KG	0/9	9	0/9			390.000	430.000	
PENTACHLOROPHENOL	UG/KG	0/9	9	0/9			960.000	2000.000	
PHENANTHRENE	UG/KG	2/9	9	2/9	140.000-150.000	145.00	390.000	430.000	
PHENOL	UG/KG	0/9	9	0/9			390.000	430.000	
PYRENE	UG/KG	2/9	9	2/9	83.000-260.000	171.50	390.000	430.000	

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000573

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/6	6	0/6			400.000	880.000	
1,2-DICHLOROBENZENE	UG/KG	0/6	6	0/6			400.000	880.000	
1,3-DICHLOROBENZENE	UG/KG	0/6	6	0/6			400.000	880.000	
1,4-DICHLOROBENZENE	UG/KG	0/6	6	0/6			400.000	880.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/6	6	0/6			980.000	4300.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/6	6	0/6			400.000	880.000	
2,4-DICHLOROPHENOL	UG/KG	0/6	6	0/6			400.000	880.000	
2,4-DIMETHYLPHENOL	UG/KG	0/6	6	0/6			400.000	880.000	
2,4-DINITROPHENOL	UG/KG	0/6	6	0/6			980.000	4300.000	
2,4-DINITROTOLUENE	UG/KG	0/6	6	0/6			400.000	880.000	
2,6-DINITROTOLUENE	UG/KG	0/6	6	0/6			400.000	880.000	
2-CHLORONAPHTHALENE	UG/KG	0/6	6	0/6			400.000	880.000	
2-CHLOROPHENOL	UG/KG	0/6	6	0/6			400.000	880.000	
2-METHYLNAPHTHALENE	UG/KG	0/6	6	0/6			400.000	880.000	
2-METHYLPHENOL	UG/KG	0/6	6	0/6			400.000	880.000	
2-NITROANILINE	UG/KG	0/6	6	0/6			980.000	4300.000	
2-NITROPHENOL	UG/KG	0/6	6	0/6			400.000	880.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/6	6	0/6			400.000	1800.000	
3-NITROANILINE	NONE	0/6	6	0/6			980.000	4300.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/6	6	0/6			980.000	4300.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/6	6	0/6			400.000	880.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/6	6	0/6			400.000	880.000	

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000574

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/6	6	0/6			400.000	880.000	
4-METHYLPHENOL	UG/KG	0/6	6	0/6			400.000	880.000	
4-NITROANILINE	UG/KG	0/6	6	0/6			980.000	4300.000	
4-NITROPHENOL	UG/KG	0/6	6	0/6			980.000	4300.000	
ACENAPHTHENE	UG/KG	0/6	6	0/6			400.000	880.000	
ACENAPHTHYLENE	UG/KG	0/6	6	0/6			400.000	880.000	
ANTHRACENE	UG/KG	0/6	6	0/6			400.000	880.000	
BENZO(A)ANTHRACENE	UG/KG	0/6	6	0/6			400.000	880.000	
BENZO(A)PYRENE	UG/KG	0/6	6	0/6			400.000	880.000	
BENZO(B)FLUORANTHENE	UG/KG	1/6	6	1/6	90.000-90.000	90.00	400.000	880.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/6	6	0/6			400.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/6	6	0/6			400.000	880.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			400.000	880.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			1000.000	4300.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/6	6	0/6			400.000	880.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/6	6	0/6			400.000	880.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/5	5	0/5			400.000	880.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/6	6	1/6	1100.000-1100.000	1100.00	400.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/6	6	0/6			400.000	880.000	
CARBAZOLE	UG/KG	0/2	2	0/2			400.000	410.000	
CHRYSENE	UG/KG	0/6	6	0/6			400.000	880.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/6	6	2/6	44.000-1400.000	722.00	400.000	410.000	

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000575

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/6	6	0/6			400.000	880.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/6	6	0/6			400.000	880.000	
DIBENZOFURAN	UG/KG	0/6	6	0/6			400.000	880.000	
DIETHYL PHTHALATE	UG/KG	0/6	6	0/6			400.000	880.000	
DIMETHYL PHTHALATE	UG/KG	0/6	6	0/6			400.000	880.000	
FLUORANTHENE	UG/KG	1/6	6	1/6	190.000-190.000	190.00	400.000	410.000	
FLUORENE	UG/KG	0/6	6	0/6			400.000	880.000	
HEXACHLOROBENZENE	UG/KG	0/6	6	0/6			400.000	880.000	
HEXACHLOROBUTADIENE	UG/KG	0/6	6	0/6			400.000	880.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/6	6	0/6			400.000	880.000	
HEXACHLOROETHANE	UG/KG	0/6	6	0/6			400.000	880.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/6	6	0/6			400.000	880.000	
ISOPHORONE	UG/KG	0/6	6	0/6			400.000	880.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/5	5	0/5			400.000	880.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/6	6	0/6			400.000	880.000	
NAPHTHALENE	UG/KG	0/6	6	0/6			400.000	880.000	
NITROBENZENE	UG/KG	0/6	6	0/6			400.000	880.000	
P-CHLOROANILINE	UG/KG	0/6	6	0/6			400.000	880.000	
PENTACHLOROPHENOL	UG/KG	0/6	6	0/6			980.000	4300.000	
PHENANTHRENE	UG/KG	1/6	6	1/6	240.000-240.000	240.00	400.000	410.000	
PHENOL	UG/KG	0/6	6	0/6			400.000	880.000	
PYRENE	UG/KG	1/6	6	1/6	150.000-150.000	150.00	400.000	410.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1800.000	1800.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			760.000	760.000	
3-NITROANILINE	NONE	0/1	1	0/1			1800.000	1800.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1800.000	1800.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1800.000	1800.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			1800.000	1800.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/6	6	0/6			3.800	92.000	
4,4'-DDE	UG/KG	0/6	6	0/6			3.800	92.000	
4,4'-DDT	UG/KG	0/6	6	0/6			3.800	92.000	
ALDRIN	UG/KG	0/6	6	0/6			1.900	46.000	
ALPHA-BHC	UG/KG	0/6	6	0/6			1.900	46.000	
ALPHA-CHLORDANE	UG/KG	0/6	6	0/6			1.900	460.000	
AROCLOR-1016	UG/KG	0/6	6	0/6			38.000	460.000	
AROCLOR-1221	UG/KG	0/6	6	0/6			77.000	680.000	
AROCLOR-1232	UG/KG	0/6	6	0/6			38.000	460.000	
AROCLOR-1242	UG/KG	0/6	6	0/6			38.000	460.000	
AROCLOR-1248	UG/KG	0/6	6	0/6			38.000	460.000	
AROCLOR-1254	UG/KG	4/6	6	4/6	120.000-1000.000	437.50	38.000	43.000	
AROCLOR-1260	UG/KG	2/6	6	2/6	340.000-1000.000	670.00	38.000	380.000	
BETA-BHC	UG/KG	1/6	6	1/6	220.000-220.000	220.00	1.900	28.000	
DELTA-BHC	UG/KG	0/6	6	0/6			1.900	46.000	
DIELDRIN	UG/KG	0/6	6	0/6			3.800	92.000	
ENDOSULFAN II	UG/KG	0/6	6	0/6			3.800	92.000	
ENDOSULFAN SULFATE	UG/KG	0/6	6	0/6			3.800	92.000	
ENDOSULFAN-I	UG/KG	0/6	6	0/6			1.900	46.000	
ENDRIN	UG/KG	0/6	6	0/6			3.800	92.000	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.800	34.000	
ENDRIN KETONE	UG/KG	0/6	6	0/6			3.800	92.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/6	6	0/6			1.900	46.000	
GAMMA-CHLORDANE	UG/KG	0/6	6	0/6			1.900	460.000	
HEPTACHLOR	UG/KG	0/6	6	0/6			1.900	46.000	
HEPTACHLOR EPOXIDE	UG/KG	0/6	6	0/6			1.900	46.000	
METHOXYCHLOR	UG/KG	0/6	6	0/6			19.000	460.000	
TOXAPHENE	UG/KG	0/6	6	0/6			190.000	1700.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			19.000	89.000	
4,4'-DDE	UG/KG	0/3	3	0/3			19.000	89.000	
4,4'-DDT	UG/KG	0/3	3	0/3			19.000	89.000	
ALDRIN	UG/KG	0/3	3	0/3			9.400	44.000	
ALPHA-BHC	UG/KG	0/3	3	0/3			9.400	44.000	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			94.000	440.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			94.000	440.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			94.000	440.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			94.000	440.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			94.000	440.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			94.000	440.000	
AROCLOR-1254	UG/KG	1/3	3	1/3	170.000-170.000	170.00	190.000	890.000	
AROCLOR-1260	UG/KG	1/3	3	1/3	270.000-270.000	270.00	190.000	890.000	
BETA-BHC	UG/KG	1/3	3	1/3	46.000-46.000	46.00	9.400	28.000	
DELTA-BHC	UG/KG	0/3	3	0/3			9.400	44.000	
DIELDRIN	UG/KG	0/3	3	0/3			19.000	89.000	
ENDOSULFAN II	UG/KG	0/3	3	0/3			19.000	89.000	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			19.000	89.000	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			9.400	44.000	
ENDRIN	UG/KG	0/3	3	0/3			19.000	89.000	
ENDRIN KETONE	UG/KG	0/3	3	0/3			19.000	89.000	
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			9.400	44.000	

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AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			94.000	440.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			9.400	44.000	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			9.400	44.000	
METHOXYCHLOR	UG/KG	0/3	3	0/3			94.000	440.000	
TOXAPHENE	UG/KG	0/3	3	0/3			190.000	890.000	

000583

AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.500	4.100	
4,4'-DDE	UG/KG	0/3	3	0/3			3.500	4.100	
4,4'-DDT	UG/KG	0/3	3	0/3			3.500	4.100	
ALDRIN	UG/KG	0/3	3	0/3			1.800	2.100	
ALPHA-BHC	UG/KG	0/3	3	0/3			1.800	2.100	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	2.100	
AROCLOR-1016	UG/KG	0/3	3	0/3			35.000	41.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			71.000	84.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			35.000	41.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			35.000	41.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			35.000	41.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			35.000	41.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			35.000	41.000	
BETA-BHC	UG/KG	0/3	3	0/3			1.800	2.100	
DELTA-BHC	UG/KG	0/3	3	0/3			1.800	2.100	
DIELDRIN	UG/KG	0/3	3	0/3			3.500	4.100	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.500	4.100	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.500	4.100	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			1.800	2.100	
ENDRIN	UG/KG	0/3	3	0/3			3.500	4.100	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.500	4.100	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.500	4.100	

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000584

5699

AREA: Pilot Plant Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			1.800	2.100	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	2.100	
HEPTACHLOR	UG/KG	0/3	3	0/3			1.800	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			1.800	2.100	
METHOXYCHLOR	UG/KG	0/3	3	0/3			18.000	21.000	
TOXAPHENE	UG/KG	0/3	3	0/3			180.000	210.000	

000585

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/5	5	0/5			3.900	19.000	
4,4'-DDE	UG/KG	0/5	5	0/5			3.900	19.000	
4,4'-DDT	UG/KG	0/5	5	0/5			3.900	19.000	
ALDRIN	UG/KG	0/5	5	0/5			2.000	9.400	
ALPHA-BHC	UG/KG	0/5	5	0/5			2.000	9.400	
ALPHA-CHLORDANE	UG/KG	0/5	5	0/5			2.000	94.000	
AROCLOR-1016	UG/KG	0/5	5	0/5			39.000	94.000	
AROCLOR-1221	UG/KG	0/5	5	0/5			79.000	94.000	
AROCLOR-1232	UG/KG	0/5	5	0/5			39.000	94.000	
AROCLOR-1242	UG/KG	0/5	5	0/5			39.000	94.000	
AROCLOR-1248	UG/KG	0/5	5	0/5			39.000	94.000	
AROCLOR-1254	UG/KG	0/5	5	0/5			39.000	190.000	
AROCLOR-1260	UG/KG	0/5	5	0/5			39.000	190.000	
BETA-BHC	UG/KG	0/5	5	0/5			2.000	9.400	
DELTA-BHC	UG/KG	0/5	5	0/5			2.000	9.400	
DIELDRIN	UG/KG	0/5	5	0/5			3.900	19.000	
ENDOSULFAN II	UG/KG	0/5	5	0/5			3.900	19.000	
ENDOSULFAN SULFATE	UG/KG	0/5	5	0/5			3.900	19.000	
ENDOSULFAN-I	UG/KG	0/5	5	0/5			2.000	9.400	
ENDRIN	UG/KG	0/5	5	0/5			3.900	19.000	
ENDRIN ALDEHYDE	UG/KG	0/4	4	0/4			3.900	4.200	
ENDRIN KETONE	UG/KG	0/5	5	0/5			3.900	19.000	

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000586

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/5	5	0/5			2.000	9.400	
GAMMA-CHLORDANE	UG/KG	0/5	5	0/5			2.000	94.000	
HEPTACHLOR	UG/KG	0/5	5	0/5			2.000	9.400	
HEPTACHLOR EPOXIDE	UG/KG	0/5	5	0/5			2.000	9.400	
METHOXYCHLOR	UG/KG	0/5	5	0/5			20.000	94.000	
TOXAPHENE	UG/KG	0/5	5	0/5			190.000	220.000	

000587

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			19.000	19.000	
4,4'-DDE	UG/KG	0/2	2	0/2			19.000	19.000	
4,4'-DDT	UG/KG	0/2	2	0/2			19.000	19.000	
ALDRIN	UG/KG	0/2	2	0/2			9.300	9.500	
ALPHA-BHC	UG/KG	0/2	2	0/2			9.300	9.500	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			93.000	95.000	
AROCLOR-1016	UG/KG	1/2	2	1/2	93.000-93.000	93.00	95.000	95.000	
AROCLOR-1221	UG/KG	1/2	2	1/2	93.000-93.000	93.00	95.000	95.000	
AROCLOR-1232	UG/KG	1/2	2	1/2	93.000-93.000	93.00	95.000	95.000	
AROCLOR-1242	UG/KG	1/2	2	1/2	93.000-93.000	93.00	95.000	95.000	
AROCLOR-1248	UG/KG	1/2	2	1/2	93.000-93.000	93.00	95.000	95.000	
AROCLOR-1254	UG/KG	1/2	2	1/2	9.900-9.900	9.90	190.000	190.000	
AROCLOR-1260	UG/KG	1/2	2	1/2	10.000-10.000	10.00	190.000	190.000	
BETA-BHC	UG/KG	0/2	2	0/2			9.300	9.500	
DELTA-BHC	UG/KG	0/2	2	0/2			9.300	9.500	
DIELDRIN	UG/KG	0/2	2	0/2			19.000	19.000	
ENDOSULFAN II	UG/KG	0/2	2	0/2			19.000	19.000	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			19.000	19.000	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			9.300	9.500	
ENDRIN	UG/KG	0/2	2	0/2			19.000	19.000	
ENDRIN KETONE	UG/KG	0/2	2	0/2			19.000	19.000	
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			9.300	9.500	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			93.000	95.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			9.300	9.500	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			9.300	9.500	
METHOXYCHLOR	UG/KG	0/2	2	0/2			93.000	95.000	
TOXAPHENE	UG/KG	0/2	2	0/2			190.000	190.000	

000569

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/11	10	0/11			3.900	100.000	
4,4'-DDE	UG/KG	0/11	10	0/11			3.900	100.000	
4,4'-DDT	UG/KG	0/11	10	0/11			3.900	100.000	
ALDRIN	UG/KG	0/11	10	0/11			2.000	51.000	
ALPHA-BHC	UG/KG	0/11	10	0/11			2.000	51.000	
ALPHA-CHLORDANE	UG/KG	0/11	10	0/11			2.000	510.000	
AROCLOR-1016	UG/KG	0/11	10	0/11			39.000	510.000	
AROCLOR-1221	UG/KG	0/11	10	0/11			80.000	510.000	
AROCLOR-1232	UG/KG	0/11	10	0/11			39.000	510.000	
AROCLOR-1242	UG/KG	0/11	10	0/11			39.000	510.000	
AROCLOR-1248	UG/KG	0/11	10	0/11			39.000	510.000	
AROCLOR-1254	UG/KG	0/11	10	0/11			39.000	880.000	
AROCLOR-1260	UG/KG	0/11	10	0/11			39.000	1000.000	
BETA-BHC	UG/KG	0/11	10	0/11			2.000	51.000	
DELTA-BHC	UG/KG	0/11	10	0/11			2.000	51.000	
DIELDRIN	UG/KG	0/11	10	0/11			3.900	100.000	
ENDOSULFAN II	UG/KG	0/11	10	0/11			3.900	100.000	
ENDOSULFAN SULFATE	UG/KG	0/11	10	0/11			3.900	100.000	
ENDOSULFAN-I	UG/KG	0/11	10	0/11			2.000	51.000	
ENDRIN	UG/KG	0/11	10	0/11			3.900	100.000	
ENDRIN ALDEHYDE	UG/KG	0/6	6	0/6			3.900	4.200	
ENDRIN KETONE	UG/KG	0/11	10	0/11			3.900	100.000	

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000590

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/11	10	0/11			2.000	51.000	
GAMMA-CHLORDANE	UG/KG	0/11	10	0/11			2.000	510.000	
HEPTACHLOR	UG/KG	0/11	10	0/11			2.000	51.000	
HEPTACHLOR EPOXIDE	UG/KG	0/11	10	0/11			2.000	51.000	
METHOXYCHLOR	UG/KG	0/11	10	0/11			20.000	510.000	
TOXAPHENE	UG/KG	0/11	10	0/11			190.000	1000.000	

AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/6	6	0/6			4.000	110.000	
4,4'-DDE	UG/KG	0/6	6	0/6			4.000	110.000	
4,4'-DDT	UG/KG	0/6	6	0/6			4.000	110.000	
ALDRIN	UG/KG	0/6	6	0/6			2.000	54.000	
ALPHA-BHC	UG/KG	0/6	6	0/6			2.000	54.000	
ALPHA-CHLORDANE	UG/KG	0/6	6	0/6			2.000	540.000	
AROCLOR-1016	UG/KG	0/6	6	0/6			40.000	540.000	
AROCLOR-1221	UG/KG	0/6	6	0/6			81.000	540.000	
AROCLOR-1232	UG/KG	0/6	6	0/6			40.000	540.000	
AROCLOR-1242	UG/KG	0/6	6	0/6			40.000	540.000	
AROCLOR-1248	UG/KG	0/6	6	0/6			40.000	540.000	
AROCLOR-1254	UG/KG	0/6	6	0/6			40.000	1100.000	
AROCLOR-1260	UG/KG	0/6	6	0/6			40.000	1100.000	
BETA-BHC	UG/KG	0/6	6	0/6			2.000	54.000	
DELTA-BHC	UG/KG	0/6	6	0/6			2.000	54.000	
DIELDRIN	UG/KG	0/6	6	0/6			4.000	110.000	
ENDOSULFAN II	UG/KG	0/6	6	0/6			4.000	110.000	
ENDOSULFAN SULFATE	UG/KG	0/6	6	0/6			4.000	110.000	
ENDOSULFAN-I	UG/KG	0/6	6	0/6			2.000	54.000	
ENDRIN	UG/KG	0/6	6	0/6			4.000	110.000	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			4.000	4.200	
ENDRIN KETONE	UG/KG	0/6	6	0/6			4.000	110.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/6	6	0/6			2.000	54.000	
GAMMA-CHLORDANE	UG/KG	0/6	6	0/6			2.000	540.000	
HEPTACHLOR	UG/KG	0/6	6	0/6			2.000	54.000	
HEPTACHLOR EPOXIDE	UG/KG	0/6	6	0/6			2.000	54.000	
METHOXYCHLOR	UG/KG	0/6	6	0/6			20.000	540.000	
TOXAPHENE	UG/KG	0/6	6	0/6			190.000	1100.000	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			19.000	19.000	
4,4'-DDE	UG/KG	0/1	1	0/1			19.000	19.000	
4,4'-DDT	UG/KG	0/1	1	0/1			19.000	19.000	
ALDRIN	UG/KG	0/1	1	0/1			9.500	9.500	
ALPHA-BHC	UG/KG	0/1	1	0/1			9.500	9.500	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			95.000	95.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			95.000	95.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			95.000	95.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			95.000	95.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			95.000	95.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			95.000	95.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			190.000	190.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			190.000	190.000	
BETA-BHC	UG/KG	0/1	1	0/1			9.500	9.500	
DELTA-BHC	UG/KG	0/1	1	0/1			9.500	9.500	
DIELDRIN	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			9.500	9.500	
ENDRIN	UG/KG	0/1	1	0/1			19.000	19.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			19.000	19.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			9.500	9.500	

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AREA: Pilot Plant Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background-Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			95.000	95.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			9.500	9.500	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			9.500	9.500	
METHOXYCHLOR	UG/KG	0/1	1	0/1			95.000	95.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	190.000	

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D.2.9 LABORATORY AREA

The laboratory area, as shown in Figure D.2-13, is located in the southwest corner of the production area. The area is bounded on the east by the administration area, along the south by office trailers and a former drum burial site, on the west by the pilot plant, and on the north by Plant 8. Facilities in the laboratory area include the laboratory (15A), chemical storage building (15B), storm sewer lift station, and an office trailer complex. The primary functions of this area included laboratory analyses, experimental processes, and chemical storage. The laboratory housed the analytical, metallurgical, and chemical process laboratories; photography laboratory; library; various offices; and equipment. The building housing the laboratory has been expanded and remodeled in several phases in the past. Table D-1 summarizes the parameters known to be present or used in the area.

Soil samples from the laboratory area were collected and analyzed under three distinct soil sampling programs and one related sampling program. The first sampling program in the laboratory area was a surface soil sampling program conducted under the site-wide RI/FS program with sampling locations identified by boring numbers "Zone x-xx," as shown in Figure D.2-13. Three soil samples were collected at each sampling location at either 2-inch intervals to a total depth of 6 inches or at 6-inch intervals to a depth of 18 inches. This surface soil sampling was completed in the fall of 1988 at 10 boring locations in and around the laboratory building.

The second investigation was performed in the laboratory area under the PASA Work Plan because of concerns about the multiple processes conducted and radioactive materials and chemicals handled in the laboratory. The PASA program in this area included two 250-foot systematic soil borings (1255 and 1403), three soil borings in the west side (1271, 1262, and 1266), and one focused soil boring (1263) in the area west of the laboratory where waste solvent drums were stored. Soil samples were collected from selected intervals in these borings and analyzed for full radiological analysis and/or full HSL parameter analysis. In addition, one Type 2 well (Well 2053) was added to the well cluster in the north side of the laboratory building to provide a monitoring point downgradient of the pilot plant.

The third sampling program in the laboratory area was conducted under the Project Specific Plan for Surface and Subsurface Soil Sampling Investigation. Three deep borings (11097, 11100, and 11200) were drilled and sampled in July 1993. As shown in Figure D.2-13, Borings 11100 and 11200 were located south of the laboratory building. Boring 11097 was located at the center of the former chemical storage area, west of the laboratory building. Soil samples were collected at depth intervals

of 0 to 0.5 feet, 1.0 to 1.5 feet, 2.5 to 3.0 feet, and 3-foot increments thereafter to a depth of 20 feet or until groundwater was encountered. All the samples were analyzed for full radiological and HSL parameters.

In addition, a soil and groundwater sampling program was initiated under the Operable Unit 5 RI/FS Work Plan Addenda to determine the nature and extent of contamination along the course of the K-65 slurry line and the Clearwell line. One soil sampling location (Boring 1840) was in the laboratory area. Soil samples were collected at selected depth intervals and analyzed for HSL volatile organic compounds and full radiological analyses. Samples were also analyzed for total uranium and total thorium to provide consistency with sampling and analysis programs under the PASA Work Plan.

Soil removal actions in the laboratory area were conducted in a few phases in the past. Surface soil along the north side of the laboratory was removed during a laboratory expansion project conducted by WEMCO. Soil from the southwest corner and south corridor of the laboratory was removed because of suspected plutonium contamination. As evidenced by the significant decrease in concentrations of radiochemical contaminants in samples from Borings 11097, 1262, and Zone 1-66, a soil removal action reportedly took place in the former chemical storage area west of the laboratory building.

A total of 20 locations in the laboratory area were sampled during the above-mentioned sampling programs for surface and/or subsurface soil analysis as shown in Figure D.2-13. The analytical results were compared to the 95th percentile background level (background) for each radiological and inorganic constituent, if available. When the background level was not available, any detection of radiological and inorganic constituent was reported. Results of volatile organic compounds, semi-volatile organic compounds, PCBs, and pesticides were presented, when detected. Table D.2-9 presents the distribution of radiological and chemical constituents in samples from various depth intervals of the laboratory area. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Surface Soil

Radiochemical analytical results for surface soil in the laboratory area indicated that the major radiological contaminants in the surface soil include isotopes of uranium, thorium, and radium, and their decay products. Uranium isotopes, uranium decay products (except Radium-226), and total

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uranium were detected at levels greater than five times background in all of the surface samples. Similarly, thorium isotopes, thorium decay products, and total thorium were also detected at levels greater than background in all of the surface depth intervals. Strontium-90 was present in depth intervals of 0.0 to 0.5 feet and 0.5 to 1.0 feet at concentrations greater than five times background, but in the 1.0- to 1.5-foot depth interval, was present at concentrations between one time and two times background. Neptunium-237 and ruthenium-106 were analyzed for, but not detected in surface soil. Technetium-99 and the plutonium isotopes (plutonium-238 and plutonium-239/240) were present in samples from all of the surface depth intervals, but no background levels were recorded. Highest levels of all the radionuclides were typically detected in the area west of the laboratory.

Most of the full HSL inorganic parameters were detected in the surface soil samples from the laboratory area. Concentrations of barium, cadmium, calcium, magnesium, and sodium were detected in one or more of the surface soil depth intervals with concentrations more than five times background. Beryllium, chromium, copper, nickel, and selenium were detected in at least one of the surface soil depth intervals with concentrations between two times and five times background concentrations. Molybdenum and silver, for which background concentrations were not available, were identified in almost all of the surface soil depth intervals.

Methylene chloride was the only volatile organic compound detected (at a low level) in surface soil samples of the 1.0- to 1.5-foot depth interval. Methylene chloride is one of the major ingredients in solvents that are commonly used in laboratories.

Various semivolatile organic compounds, primarily polynuclear aromatic hydrocarbons (PAHs), were detected in surface soil samples from all depth intervals. PCBs, in the form of Aroclor-1254, were detected in surface soil samples at depths of 0.0 to 0.5 feet and 1.0 to 1.5 feet. No pesticides were found in any of the surface soil samples.

Subsurface Soil

Radiochemical results for subsurface soil in the laboratory area indicated that the major radiological contamination in the subsurface soil includes uranium isotopes (uranium-238, uranium-234, and uranium-235/236) and total uranium. The uranium isotopes were detected at activities more than five times background in samples collected from the depth interval of 1.5 to 3.0 feet. Uranium-238 and uranium-234 were also detected at levels in excess of five times background in samples collected from

depths of 10.0 to 15.0 feet. Total uranium was determined to be at concentrations greater than background in samples collected from depth intervals of 5.0 to 10.0 feet and 15.0 to 20.0 feet. Radium-226 was present exceeding, but less than two times, background in the subsurface soil. Plutonium-238 was detected at the 1.5- to 3.0-foot depth interval in samples collected from the southwest corner of the laboratory building. No thorium isotopes or their decay products were detected at levels exceeding background. No other radionuclides were observed in the subsurface soil samples.

Similar inorganic contaminants that were detected in surface soil samples were identified in samples from the uppermost depth interval (1.5 to 3.0 feet) of subsurface soil at concentrations up to slightly more than two times background. Beryllium and zinc were found in samples collected from depth intervals of 10.0 to 15.0 feet and 15.0 to 20.0 feet. Other inorganic constituents including arsenic, cadmium, calcium, copper, lead, magnesium, molybdenum, and nickel were detected in samples from deeper intervals (as deep as 10.0 to 15.0 feet) at concentrations between one time and two times background.

Methylene chloride was detected in trace amounts in the subsurface soil samples to a depth of 20.0 feet. Acetone was found only in the sample from the 15.0- to 20.0-foot depth interval. These chemicals are primary ingredients in common solvents that are used in laboratories.

Similar but fewer PAHs were detected in the subsurface soil samples from depths of 1.5 to 3.0 feet than in the surface soil samples. Bis(2-ethylhexyl)phthalate and phenol were the semivolatile organic compounds found in subsurface soil samples from depths of 5.0 to 10.0 feet. Aroclor-1254 was the only PCB compound detected in samples from the depth interval of 5.0 to 10.0 feet. No pesticides were detected in any of the subsurface soil samples.

Conclusion

Radiological and chemical contamination in the laboratory area appears to be present primarily in all of the surface soil depth intervals and in subsurface soil at the 1.5- to 3.0-foot depth. Uranium isotopes and their decay products, however, were present to depths as great as 15 to 20 feet. Although above background, the levels of these contaminants decrease as the sample depth increases.

Acetone and methylene chloride were detected at low levels in surface and subsurface soil. Various semivolatile organic compounds, primarily PAHs, were detected in all depth intervals of surface soil and primarily the 1.5- to 3.0-foot depth interval of subsurface soil. No pesticides were detected. PCBs, in the form of Aroclor-1254, were detected in depths of 10 feet.

The apparent source of contamination in the surface soil of the laboratory area is airborne particulates originating from process plants within the production area, as well as spills from the laboratory, lift station and the former chemical storage area. Contaminants in the subsurface soil samples are considered to be leached from the surface soil and/or from leaks in the lift station and sump in the laboratory.

TABLE D.2-9
LABORATORY
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.166	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	17					●						-	X	X		X	-	⊙
0.5 - 1	9					●						-	X	X		X	-	○
1 - 1.5	11					●						-	X	X	●	X	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	3				○	●		○	○	○	○	-	-	X	-	-	-	-
3 - 5	1	○	●	○	○	-	-	○	○	-	○							
5 - 10	5	●		⊙	○	○	-	○	○	○	○							
10 - 15	4				○	○	-	○	○	○	○	-	-	-	-	-	-	-
15 - 20	1	○		○	○		-	○		-	○							

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	69.6
0 - 0.5	4	●	-	○		⊙	⊙		●	●	●	●	●	○		○	●	X	●	●	⊙	○	X		○	●	●
0.5 - 1	1	○	-	○		-			⊙	○	⊙	-	○	●		○		-	⊙	●			X		-	○	
1 - 1.5	3	●	-	○	○	⊙	●		●	○	●	-	●	○		○	○	X	●	●	-	○	X	⊙	○	●	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	286	0.49	37.8	82
1.5 - 3	3	○	-	●	●	⊙	●	○	○	●	●	⊙	●	●	○	●	○	-	●	○	X	○	X	○	-	○	●
3 - 5	1	○	-	○	○	-	-	○	○	○	○	-	○	○	○	○	-	●	○	○	-	○	X	○	-	○	○
5 - 10	4	○	-	●	○	-	●	○	○	○	●	-	○	●	○	○	-	-	●	○	-	○	-	○	○	○	●
10 - 15	1	○	-	○	○	⊙	-	●	○	○	-	-	○	○	●	○	-	-	-	○	-	-	-	-	○	○	○
15 - 20	1	○	-	○	○	⊙	-	○	○	○	-	-	○	○	○	○	-	-	-	○	-	-	-	-	○	○	⊙

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

⊙ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-9
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)											SEMIVOLATILES (ug/kg)																				PESTICIDES/PCBs (ug/kg)													
	Number of Samples	Acetone	Methylene chloride									Number of Samples	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ehtylhexyl)phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	Isophorone	Phenanthrene	Phenol	Pyrene	Number of Samples	Aroclor-1254												
Surface Soil:																																													
0 - 0.5	3	-	-									4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	3	X												
0.5 - 1	0											1	-	-	X	X	X	X	X	X	-		X	-	X	-	X	-	X	-	X	1	-												
1 - 1.5	3	-	X									3	X	X	X	X	X	X	X	X	-	X	X	-	X	X	X	-	X	-	X	2	X												
Subsurface Soil:																																													
1.5 - 3	3	-	X									3	-	-	X	-	X	-	-	X	-	-	X	-	X	-	-	-	X	-	X	3	-												
3 - 5	1	-	-									1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-												
5 - 10	4	-	X									4	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	4	X												
10 - 15	3	-	X									1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-												
15 - 20	1	X	X									1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-												

[ ] "Blank" - Compound was not analyzed.

[-] Analyzed and not detected.

[X] Detection where background level not recorded.

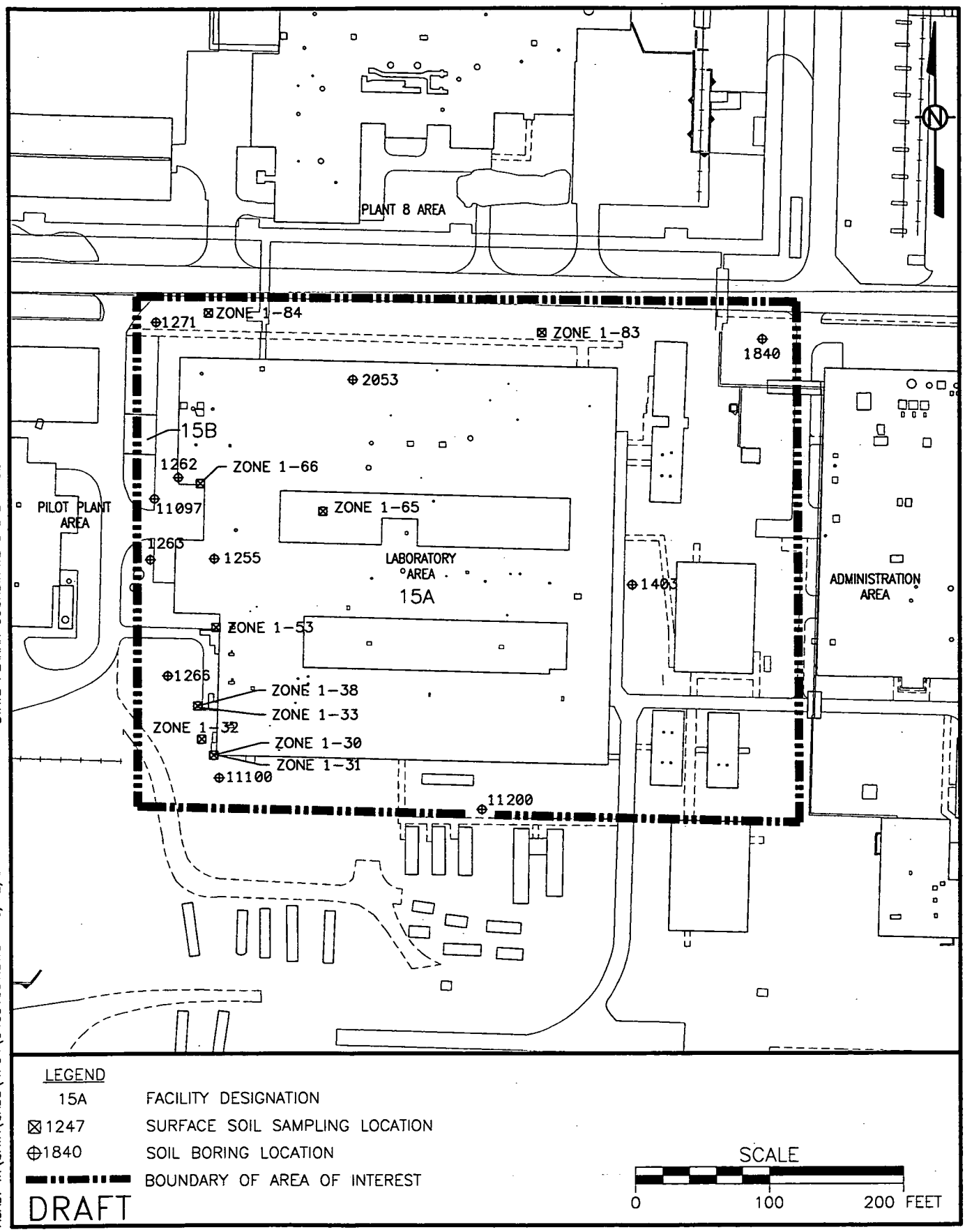

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FIGURE D.2-13. LABORATORY AREA

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Laboratory Area

Summary Soil Statistics

AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	19/19	0	18/19	0.400-14321.000	1595.50	67.300	67.300	1.24
URANIUM, TOTAL	MG/KG	21/21	0	20/21	2.000-43118.552	4214.95	67.300	67.300	3.73
URANIUM-234	PCI/G	19/19	0	18/19	0.400-13262.000	1532.80	67.300	67.300	1.24
THORIUM-230	PCI/G	18/18	0	13/18	1.100-288.000	61.72	67.300	67.300	1.97
RADIUM-226	PCI/G	11/17	0	6/17	0.700-2.600	1.46	0.250	1.900	1.42
URANIUM-235/236	PCI/G	17/19	0	17/19	0.200-950.000	83.59	0.100	0.100	0.156
THORIUM-232	PCI/G	18/18	0	12/18	0.500-283.000	52.90	67.300	67.300	1.36
THORIUM, TOTAL	MG/KG	18/20	0	12/20	4.560-2581.013	482.45	18.000	23.000	12.4
RADIUM-228	PCI/G	14/16	0	13/16	0.600-546.000	101.41	0.500	0.500	1.25
THORIUM-228	PCI/G	18/18	0	14/18	0.600-315.000	51.28	67.300	67.300	1.43
NEPTUNIUM-237	PCI/G	0/16	0	0/16			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	6/16	0	6/16	1.800-12.900	7.05	0.600	0.600	NA
PLUTONIUM-238	PCI/G	9/16	0	9/16	0.700-151.000	44.91	0.600	0.600	NA
STRONTIUM-90	PCI/G	10/16	0	10/16	0.640-26.300	4.50	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	13/16	0	13/16	1.100-320.000	31.35	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/14	0	0/14			1.000	9.500	NA
CESIUM-137	PCI/G	7/14	0	5/14	0.600-2.900	1.33	0.200	1.100	0.711

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	9/9	0	9/9	40.200-748.000	275.99	900.000	1800.000	1.24
URANIUM, TOTAL	MG/KG	9/9	0	9/9	125.000-1260.000	570.11	900.000	1800.000	3.73
URANIUM-234	PCI/G	9/9	0	9/9	42.300-749.000	277.60	900.000	1800.000	1.24
THORIUM-230	PCI/G	9/9	0	8/9	1.800-150.000	25.79	900.000	1800.000	1.97
RADIUM-226	PCI/G	8/9	0	2/9	0.900-2.000	1.30	1.000	1.000	1.42
URANIUM-235/236	PCI/G	9/9	0	9/9	2.000-35.000	15.70	900.000	1800.000	0.156
THORIUM-232	PCI/G	9/9	0	6/9	1.000-57.400	18.18	900.000	1800.000	1.36
THORIUM, TOTAL	MG/KG	9/9	0	6/9	9.120-523.498	165.79	900.000	1800.000	12.4
RADIUM-228	PCI/G	9/9	0	7/9	1.000-217.000	38.50	900.000	1800.000	1.25
THORIUM-228	PCI/G	9/9	0	6/9	1.100-67.000	17.51	900.000	1800.000	1.43
NEPTUNIUM-237	PCI/G	0/9	0	0/9			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	2/9	0	2/9	1.200-4.300	2.75	0.600	0.600	NA
PLUTONIUM-238	PCI/G	4/9	0	4/9	4.700-67.400	24.48	0.600	0.600	NA
STRONTIUM-90	PCI/G	3/7	0	3/7	1.900-4.000	2.67	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	2/9	0	2/9	6.100-10.200	8.15	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/9	0	0/9			1.000	6.300	NA
CESIUM-137	PCI/G	1/9	0	0/9	0.700-0.700	0.70	0.200	0.600	0.711

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	13/13	0	12/13	0.600-981.000	207.95	41.700	41.700	1.24
URANIUM, TOTAL	MG/KG	12/12	0	11/12	3.200-3250.000	686.82	41.700	41.700	3.73
URANIUM-234	PCI/G	13/13	0	12/13	0.500-873.000	166.93	41.700	41.700	1.24
THORIUM-230	PCI/G	13/13	0	5/13	0.900-16.400	4.21	41.700	41.700	1.97
RADIUM-226	PCI/G	12/12	0	2/12	0.400-1.600	0.97	41.700	41.700	1.42
URANIUM-235/236	PCI/G	11/13	0	11/13	0.200-70.000	14.42	0.100	0.600	0.156
THORIUM-232	PCI/G	11/13	0	5/13	0.700-61.600	9.84	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	12/13	0	5/13	2.980-561.800	82.48	5.472	5.472	12.4
RADIUM-228	PCI/G	9/12	0	6/12	0.900-45.800	10.01	0.500	0.500	1.25
THORIUM-228	PCI/G	12/13	0	5/13	0.600-55.800	8.38	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/10	0	0/10			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/10	0	1/10	0.700-0.700	0.70	0.600	0.600	NA
PLUTONIUM-238	PCI/G	4/10	0	4/10	0.800-8.200	3.55	0.600	0.600	NA
STRONTIUM-90	PCI/G	2/8	0	2/8	0.700-0.700	0.70	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	2/10	0	2/10	3.800-4.800	4.30	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/9	0	0/9			1.000	2.200	NA
CESIUM-137	PCI/G	0/9	0	0/9			0.200	0.200	0.711
GROSS ALPHA	PCI/G	0/1	0	0/1			14.000	14.000	
GROSS BETA	PCI/G	0/1	0	0/1			22.000	22.000	

AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	4/4	4	3/4	0.700-20.600	6.28	12.000	13.000	1.12
URANIUM, TOTAL	MG/KG	5/7	0	3/7	3.310-72.000	22.76	11.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	3/4	0.600-23.600	6.88	12.000	13.000	1.04
THORIUM-230	PCI/G	4/4	4	0/4	0.800-1.320	1.11	12.000	13.000	1.91
RADIUM-226	PCI/G	4/4	4	1/4	0.300-1.600	0.74	12.000	13.000	1.47
URANIUM-235/236	PCI/G	1/4	4	1/4	1.000-1.000	1.00	0.100	0.600	0.150
THORIUM-232	PCI/G	3/4	4	0/4	0.700-1.000	0.87	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	4/7	0	0/7	2.270-9.120	6.50	18.000	23.000	11.1
RADIUM-228	PCI/G	1/4	4	0/4	0.700-0.700	0.70	0.500	0.500	1.31
THORIUM-228	PCI/G	3/4	4	0/4	0.700-0.800	0.77	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	1/1	1	1/1	2.770-2.770	2.77	12.000	13.000	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.400-0.400	0.40	12.000	12.000	1.12
URANIUM, TOTAL	MG/KG	3/3	0	2/3	2.000-11.000	6.00	12.000	12.000	3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.400-0.400	0.40	12.000	12.000	1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.800-0.800	0.80	12.000	12.000	1.91
RADIUM-226	PCI/G	0/1	1	0/1			0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.400-0.400	0.40	12.000	12.000	1.26
THORIUM, TOTAL	MG/KG	2/3	0	0/3	3.648-4.100	3.87	23.000	23.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.400-0.400	0.40	12.000	12.000	1.38

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	4/4	4	4/4	1.200-2.200	1.75	66.000	82.900	1.12
URANIUM, TOTAL	MG/KG	6/10	0	6/10	4.300-21.100	11.77	3.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	4/4	1.200-2.300	1.70	66.000	82.900	1.04
THORIUM-230	PCI/G	4/4	4	0/4	0.700-1.100	0.83	66.000	82.900	1.91
RADIUM-226	PCI/G	4/4	4	0/4	0.500-1.000	0.68	66.000	82.900	1.47
URANIUM-235/236	PCI/G	0/4	4	0/4			0.100	0.200	0.150
THORIUM-232	PCI/G	4/4	4	0/4	0.500-0.600	0.58	66.000	82.900	1.26
THORIUM, TOTAL	MG/KG	5/10	0	0/10	2.680-5.472	4.73	18.000	23.000	11.1
RADIUM-228	PCI/G	1/4	4	0/4	0.800-0.800	0.80	0.500	0.500	1.31
THORIUM-228	PCI/G	4/4	4	0/4	0.500-0.800	0.63	66.000	82.900	1.38

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	3/3	3	2/3	0.800-7.930	3.37	6.000	13.000	1.12
URANIUM, TOTAL	MG/KG	5/9	0	3/9	3.000-11.300	5.19	11.000	11.000	3.69
URANIUM-234	PCI/G	3/3	3	2/3	0.800-7.640	3.29	6.000	13.000	1.04
THORIUM-230	PCI/G	3/4	4	0/4	0.640-1.200	0.88	0.600	0.600	1.91
RADIUM-226	PCI/G	3/3	3	0/3	0.790-0.920	0.84	6.000	13.000	1.47
URANIUM-235/236	PCI/G	0/3	3	0/3			0.600	0.600	0.150
THORIUM-232	PCI/G	3/4	4	0/4	0.200-0.800	0.54	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	4/9	0	0/9	1.824-7.296	4.97	3.850	23.000	11.1
RADIUM-228	PCI/G	3/4	4	0/4	0.700-1.100	0.85	0.500	0.500	1.31
THORIUM-228	PCI/G	4/4	4	0/4	0.500-0.800	0.70	6.000	13.000	1.38
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/3	3	0/3			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	3	0/3			1.000	1.200	NA
CESIUM-137	PCI/G	0/3	3	0/3			0.200	0.200	NA
GROSS ALPHA	PCI/G	2/2	0	2/2	13.100-34.800	23.95	6.000	13.000	
GROSS BETA	PCI/G	2/2	0	2/2	19.600-25.000	22.30	6.000	13.000	

AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	1.000-1.000	1.00	12.000	12.000	1.12
URANIUM, TOTAL	MG/KG	2/2	0	1/2	2.100-30.000	16.05	12.000	12.000	3.69
URANIUM-234	PCI/G	1/1	1	0/1	1.000-1.000	1.00	12.000	12.000	1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.800-0.800	0.80	12.000	12.000	1.91
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.600-0.600	0.60	12.000	12.000	1.26
THORIUM, TOTAL	MG/KG	1/2	0	0/2	5.472-5.472	5.47	23.000	23.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.700-0.700	0.70	12.000	12.000	1.38

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.800-0.800	0.80	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	0/1	1	0/1			2.000	2.000	3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.700-0.700	0.70	0.600	0.600	1.04
THORIUM-230	PCI/G	0/1	1	0/1			0.600	0.600	1.91
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	0/1	1	0/1			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	0/1	1	0/1			5.472	5.472	11.1
THORIUM-228	PCI/G	0/1	1	0/1			0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	4/4	4	1/4	7570.000-13800.000	10692.50	67.300	67.300	11900
ANTIMONY	MG/KG	0/2	2	0/2			0.970	6.800	NA
ARSENIC	MG/KG	4/4	4	0/4	5.600-7.600	6.28	67.300	67.300	8.20
BARIUM	MG/KG	4/4	4	2/4	68.000-561.000	211.45	67.300	67.300	95.7
BERYLLIUM	MG/KG	2/4	4	1/4	0.510-1.300	0.91	1.200	1.200	0.6
CADMIUM	MG/KG	2/4	4	2/4	2.200-3.500	2.85	0.970	1.100	0.870
CALCIUM	MG/KG	4/4	4	4/4	8840.000-135000.000	48160.00	67.300	67.300	4340
CHROMIUM	MG/KG	4/4	4	2/4	9.800-18.700	14.18	67.300	67.300	15.5
COBALT	MG/KG	3/4	4	1/4	7.600-17.000	12.00	6.900	6.900	14.2
COPPER	MG/KG	3/4	4	3/4	15.300-25.900	20.17	8.100	8.100	14.1
CYANIDE	MG/KG	2/4	4	2/4	0.300-0.520	0.41	0.130	0.300	0.270
IRON	MG/KG	4/4	4	2/4	11700.000-29700.000	20400.00	67.300	67.300	21700
LEAD	MG/KG	3/4	4	0/4	15.700-22.300	19.63	0.470	0.470	26.4
MAGNESIUM	MG/KG	4/4	4	4/4	4700.000-33400.000	13702.50	67.300	67.300	2780
MANGANESE	MG/KG	4/4	4	0/4	554.000-1280.000	844.50	67.300	67.300	1350
MERCURY	MG/KG	1/4	4	1/4	0.340-0.340	0.34	0.060	0.100	0.3
MOLYBDENUM	MG/KG	1/4	4	1/4	4.400-4.400	4.40	2.300	4.100	NA
NICKEL	MG/KG	3/4	4	2/4	15.800-35.100	26.30	12.900	12.900	20.9
POTASSIUM	MG/KG	4/4	4	2/4	734.000-2200.000	1352.25	67.300	67.300	1230
SELENIUM	MG/KG	2/2	2	1/2	0.340-2.300	1.32	0.470	0.470	0.72
SILICON	MG/KG	2/2	2	0/2	520.000-522.000	521.00	67.300	67.300	1800
SILVER	MG/KG	1/3	3	1/3	3.400-3.400	3.40	0.220	2.300	NA

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	3/4	4	3/4	85.700-2180.000	824.57	127.000	127.000	51.1
THALLIUM	MG/KG	2/4	4	0/4	0.290-0.400	0.35	0.220	0.360	0.58
VANADIUM	MG/KG	4/4	4	1/4	19.000-31.100	24.85	67.300	67.300	30.4
ZINC	MG/KG	2/3	3	1/3	53.500-105.000	79.25	67.300	67.300	59.6

000615

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	8330.000-8330.000	8330.00	900.000	1800.000	11900
ANTIMONY	MG/KG	0/1	1	0/1			6.400	6.400	NA
ARSENIC	MG/KG	1/1	1	0/1	5.100-5.100	5.10	900.000	1800.000	8.20
BARIUM	MG/KG	1/1	1	1/1	587.000-587.000	587.00	900.000	1800.000	95.7
BERYLLIUM	MG/KG	0/1	1	0/1			1.200	1.200	0.6
CADMIUM	MG/KG	1/1	1	1/1	4.900-4.900	4.90	900.000	1800.000	0.870
CALCIUM	MG/KG	1/1	1	1/1	70800.000-70800.000	70800.00	900.000	1800.000	4340
CHROMIUM	MG/KG	1/1	1	1/1	31.900-31.900	31.90	900.000	1800.000	15.5
COBALT	MG/KG	1/1	1	0/1	12.300-12.300	12.30	900.000	1800.000	14.2
COPPER	MG/KG	1/1	1	1/1	69.400-69.400	69.40	900.000	1800.000	14.1
CYANIDE	MG/KG	0/1	1	0/1			0.280	0.280	0.270
IRON	MG/KG	1/1	1	0/1	15200.000-15200.000	15200.00	900.000	1800.000	21700
LEAD	MG/KG	1/1	1	1/1	42.300-42.300	42.30	900.000	1800.000	26.4
MAGNESIUM	MG/KG	1/1	1	1/1	19900.000-19900.000	19900.00	900.000	1800.000	2780
MANGANESE	MG/KG	1/1	1	0/1	390.000-390.000	390.00	900.000	1800.000	1350
MOLYBDENUM	MG/KG	0/1	1	0/1			2.100	2.100	NA
NICKEL	MG/KG	1/1	1	1/1	48.100-48.100	48.10	900.000	1800.000	20.9
POTASSIUM	MG/KG	1/1	1	1/1	1550.000-1550.000	1550.00	900.000	1800.000	1230
SILVER	MG/KG	1/1	1	1/1	3.200-3.200	3.20	900.000	1800.000	NA
SODIUM	MG/KG	1/1	1	1/1	2090.000-2090.000	2090.00	900.000	1800.000	51.1
THALLIUM	MG/KG	0/1	1	0/1			0.270	0.270	0.58
VANADIUM	MG/KG	1/1	1	0/1	23.500-23.500	23.50	900.000	1800.000	30.4

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	3/3	3	1/3	6170.000-16100.000	11156.67	41.700	41.700	11900
ANTIMONY	MG/KG	0/1	1	0/1			1.000	2.600	NA
ARSENIC	MG/KG	3/3	3	0/3	4.700-6.000	5.30	41.700	41.700	8.20
BARIUM	MG/KG	3/3	3	0/3	59.100-78.400	71.73	41.700	41.700	95.7
BERYLLIUM	MG/KG	2/3	3	1/3	0.450-1.500	0.98	1.200	1.200	0.6
CADMIUM	MG/KG	1/3	3	1/3	1.200-1.200	1.20	1.000	1.100	0.870
CALCIUM	MG/KG	3/3	3	2/3	3430.000-170000.000	89210.00	41.700	41.700	4340
CHROMIUM	MG/KG	3/3	3	1/3	9.400-16.600	13.67	41.700	41.700	15.5
COBALT	MG/KG	3/3	3	0/3	5.900-9.800	7.57	41.700	41.700	14.2
COPPER	MG/KG	3/3	3	2/3	13.400-21.300	18.63	41.700	41.700	14.1
CYANIDE	MG/KG	0/3	3	0/3			0.110	0.290	0.270
IRON	MG/KG	3/3	3	1/3	13600.000-25400.000	20033.33	41.700	41.700	21700
LEAD	MG/KG	3/3	3	0/3	15.100-18.500	16.90	41.700	41.700	26.4
MAGNESIUM	MG/KG	3/3	3	3/3	3090.000-27700.000	19330.00	41.700	41.700	2780
MANGANESE	MG/KG	3/3	3	0/3	316.000-652.000	510.67	41.700	41.700	1350
MERCURY	MG/KG	1/3	3	0/3	0.060-0.060	0.06	0.060	0.100	0.3
MOLYBDENUM	MG/KG	1/3	3	1/3	4.700-4.700	4.70	3.800	4.000	NA
NICKEL	MG/KG	3/3	3	1/3	15.200-31.800	20.93	41.700	41.700	20.9
POTASSIUM	MG/KG	3/3	3	1/3	707.000-1560.000	1079.33	41.700	41.700	1230
SELENIUM	MG/KG	0/2	2	0/2			0.410	0.450	0.72
SILICON	MG/KG	2/2	2	0/2	471.000-671.000	571.00	41.700	41.700	1800
SILVER	MG/KG	1/2	2	1/2	7.000-7.000	7.00	0.230	0.470	NA

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	2/3	3	2/3	70.100-154.000	112.05	152.000	152.000	51.1
THALLIUM	MG/KG	1/3	3	0/3	0.440-0.440	0.44	0.230	0.240	0.58
VANADIUM	MG/KG	3/3	3	1/3	19.500-39.800	26.93	41.700	41.700	30.4
ZINC	MG/KG	2/3	3	1/3	53.200-65.200	59.20	41.700	41.700	59.6

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	3/3	3	0/3	6040.000-14700.000	11180.00	12.000	13.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			1.200	2.900	NA
ARSENIC	MG/KG	3/3	3	1/3	2.800-17.200	8.60	12.000	13.000	9.57
BARIUM	MG/KG	3/3	3	2/3	52.100-174.000	124.03	12.000	13.000	119
BERYLLIUM	MG/KG	2/3	3	1/3	0.480-1.600	1.04	1.300	1.300	0.620
CADMIUM	MG/KG	1/3	3	1/3	1.300-1.300	1.30	1.200	1.300	0.910
CALCIUM	MG/KG	3/3	3	0/3	4050.000-38600.000	15896.67	12.000	13.000	150000
CHROMIUM	MG/KG	3/3	3	0/3	5.600-18.600	13.27	12.000	13.000	20.7
COBALT	MG/KG	2/3	3	1/3	6.600-15.800	11.20	4.600	4.600	15.7
COPPER	MG/KG	3/3	3	1/3	7.500-26.900	17.70	12.000	13.000	20.0
CYANIDE	MG/KG	1/3	3	1/3	0.440-0.440	0.44	0.120	0.340	.17
IRON	MG/KG	3/3	3	1/3	8600.000-33000.000	21200.00	12.000	13.000	30700
LEAD	MG/KG	3/3	3	1/3	11.000-21.700	16.00	12.000	13.000	15.6
MAGNESIUM	MG/KG	3/3	3	0/3	1390.000-23100.000	9560.00	12.000	13.000	42600
MANGANESE	MG/KG	3/3	3	1/3	154.000-1340.000	646.33	12.000	13.000	1300
MERCURY	MG/KG	1/3	3	0/3	0.060-0.060	0.06	0.070	0.110	0.29
MOLYBDENUM	MG/KG	0/3	3	0/3			4.100	4.700	2.7
NICKEL	MG/KG	3/3	3	1/3	7.600-45.300	24.37	12.000	13.000	34.3
POTASSIUM	MG/KG	3/3	3	0/3	678.000-1020.000	796.33	12.000	13.000	1980
SELENIUM	MG/KG	1/2	2	1/2	0.600-0.600	0.60	0.470	0.540	NA
SILICON	MG/KG	2/2	2	0/2	524.000-726.000	625.00	12.000	13.000	1590
SILVER	MG/KG	1/2	2	1/2	5.200-5.200	5.20	0.240	0.540	NA

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AREA: Laboratory Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	2/3	3	0/3	118.000-229.000	173.50	59.200	59.200	285
THALLIUM	MG/KG	0/3	3	0/3			0.240	0.470	0.49
VANADIUM	MG/KG	3/3	3	0/3	14.700-35.300	24.67	12.000	13.000	37.8
ZINC	MG/KG	3/3	3	1/3	35.500-96.400	61.50	12.000	13.000	82.0

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	5510.000-5510.000	5510.00	12.000	12.000	16100
ARSENIC	MG/KG	1/1	1	0/1	4.100-4.100	4.10	12.000	12.000	9.57
BARIUM	MG/KG	1/1	1	0/1	65.300-65.300	65.30	12.000	12.000	119
BERYLLIUM	MG/KG	0/1	1	0/1			0.470	0.470	0.620
CADMIUM	MG/KG	0/1	1	0/1			0.990	0.990	0.910
CALCIUM	MG/KG	1/1	1	0/1	103000.000-103000.000	103000.00	12.000	12.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	8.200-8.200	8.20	12.000	12.000	20.7
COBALT	MG/KG	1/1	1	0/1	7.900-7.900	7.90	12.000	12.000	15.7
COPPER	MG/KG	1/1	1	0/1	18.600-18.600	18.60	12.000	12.000	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.120	0.120	.17
IRON	MG/KG	1/1	1	0/1	18500.000-18500.000	18500.00	12.000	12.000	30700
LEAD	MG/KG	1/1	1	0/1	8.800-8.800	8.80	12.000	12.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	41100.000-41100.000	41100.00	12.000	12.000	42600
MANGANESE	MG/KG	1/1	1	0/1	787.000-787.000	787.00	12.000	12.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.29
MOLYBDENUM	MG/KG	1/1	1	1/1	5.000-5.000	5.00	12.000	12.000	2.7
NICKEL	MG/KG	1/1	1	0/1	20.200-20.200	20.20	12.000	12.000	34.3
POTASSIUM	MG/KG	1/1	1	0/1	732.000-732.000	732.00	12.000	12.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.470	0.470	NA
SILICON	MG/KG	1/1	1	0/1	503.000-503.000	503.00	12.000	12.000	1590
SILVER	MG/KG	1/1	1	1/1	3.700-3.700	3.70	12.000	12.000	NA
SODIUM	MG/KG	1/1	1	0/1	150.000-150.000	150.00	12.000	12.000	285

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.470	0.470	0.49
VANADIUM	MG/KG	1/1	1	0/1	23.200-23.200	23.20	12.000	12.000	37.8
ZINC	MG/KG	1/1	1	0/1	41.400-41.400	41.40	12.000	12.000	82.0

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DRAFT

AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							95% Background Concentration Value
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	4/4	4	0/4	5640.000-11100.000	8647.50	66.000	82.900	16100
ANTIMONY	MG/KG	0/2	2	0/2			2.600	2.700	NA
ARSENIC	MG/KG	4/4	4	1/4	6.500-9.800	7.98	66.000	82.900	9.57
BARIUM	MG/KG	4/4	4	0/4	46.100-89.300	71.68	66.000	82.900	119
BERYLLIUM	MG/KG	0/4	4	0/4			0.950	1.200	0.620
CADMIUM	MG/KG	2/4	4	2/4	1.700-1.800	1.75	1.200	1.200	0.910
CALCIUM	MG/KG	4/4	4	0/4	103000.000-121000.000	108250.00	66.000	82.900	150000
CHROMIUM	MG/KG	4/4	4	0/4	8.700-14.700	12.13	66.000	82.900	20.7
COBALT	MG/KG	3/4	4	0/4	10.300-14.800	12.70	9.400	9.400	15.7
COPPER	MG/KG	4/4	4	3/4	14.900-22.000	19.78	66.000	82.900	20.0
CYANIDE	MG/KG	0/4	4	0/4			0.300	0.310	.17
IRON	MG/KG	4/4	4	0/4	18300.000-25200.000	21825.00	66.000	82.900	30700
LEAD	MG/KG	4/4	4	1/4	7.900-15.700	11.98	66.000	82.900	15.6
MAGNESIUM	MG/KG	4/4	4	0/4	27700.000-36900.000	31450.00	66.000	82.900	42600
MANGANESE	MG/KG	4/4	4	0/4	471.000-652.000	545.00	66.000	82.900	1300
MERCURY	MG/KG	0/4	4	0/4			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/4	4	0/4			4.000	4.200	2.7
NICKEL	MG/KG	4/4	4	1/4	18.300-34.800	26.45	66.000	82.900	34.3
POTASSIUM	MG/KG	4/4	4	0/4	1100.000-1680.000	1382.50	66.000	82.900	1980
SELENIUM	MG/KG	0/2	2	0/2			0.470	2.400	NA
SILICON	MG/KG	2/2	2	0/2	523.000-688.000	605.50	66.000	82.900	1590
SILVER	MG/KG	0/2	2	0/2			0.240	0.490	NA

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	2/4	4	0/4	164.000-196.000	180.00	126.000	163.000	285
THALLIUM	MG/KG	1/4	4	0/4	0.290-0.290	0.29	0.240	0.250	0.49
VANADIUM	MG/KG	4/4	4	0/4	16.100-26.400	21.85	66.000	82.900	37.8
ZINC	MG/KG	2/4	4	1/4	48.300-85.100	66.70	66.000	82.900	82.0

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	5670.000-5670.000	5670.00	6.000	13.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			2.900	2.900	NA
ARSENIC	MG/KG	1/1	1	0/1	5.700-5.700	5.70	6.000	13.000	9.57
BARIUM	MG/KG	1/1	1	0/1	47.800-47.800	47.80	6.000	13.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	1.300-1.300	1.30	6.000	13.000	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.300	1.300	0.910
CALCIUM	MG/KG	1/1	1	1/1	154000.000-154000.000	154000.00	6.000	13.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	10.800-10.800	10.80	6.000	13.000	20.7
COBALT	MG/KG	1/1	1	0/1	5.800-5.800	5.80	6.000	13.000	15.7
COPPER	MG/KG	0/1	1	0/1			18.500	18.500	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.330	0.330	.17
IRON	MG/KG	1/1	1	0/1	13800.000-13800.000	13800.00	6.000	13.000	30700
LEAD	MG/KG	1/1	1	0/1	0.470-0.470	0.47	6.000	13.000	15.6
MAGNESIUM	MG/KG	1/1	1	1/1	48300.000-48300.000	48300.00	6.000	13.000	42600
MANGANESE	MG/KG	1/1	1	0/1	392.000-392.000	392.00	6.000	13.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.070	0.070	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.500	4.500	2.7
NICKEL	MG/KG	0/1	1	0/1			37.500	37.500	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1310.000-1310.000	1310.00	6.000	13.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.260	0.260	NA
SILICON	MG/KG	0/1	1	0/1			66.800	66.800	1590
SILVER	MG/KG	0/1	1	0/1			0.530	0.530	NA

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
SODIUM	MG/KG	0/1	1	0/1			108.000	108.000	285
THALLIUM	MG/KG	1/1	1	0/1	0.310-0.310	0.31	6.000	13.000	0.49
VANADIUM	MG/KG	1/1	1	0/1	19.000-19.000	19.00	6.000	13.000	37.8
ZINC	MG/KG	1/1	1	0/1	60.000-60.000	60.00	6.000	13.000	82.0

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	6050.000-6050.000	6050.00	12.000	12.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			2.600	2.600	NA
ARSENIC	MG/KG	1/1	1	0/1	5.100-5.100	5.10	12.000	12.000	9.57
BARIUM	MG/KG	1/1	1	0/1	43.100-43.100	43.10	12.000	12.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	2.800-2.800	2.80	12.000	12.000	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.200	1.200	0.910
CALCIUM	MG/KG	1/1	1	0/1	123000.000-123000.000	123000.00	12.000	12.000	150000
CHROMIUM	MG/KG	1/1	1	0/1	10.000-10.000	10.00	12.000	12.000	20.7
COBALT	MG/KG	1/1	1	0/1	5.800-5.800	5.80	12.000	12.000	15.7
COPPER	MG/KG	0/1	1	0/1			9.800	9.800	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.290	0.290	.17
IRON	MG/KG	1/1	1	0/1	11200.000-11200.000	11200.00	12.000	12.000	30700
LEAD	MG/KG	1/1	1	0/1	4.300-4.300	4.30	12.000	12.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	17200.000-17200.000	17200.00	12.000	12.000	42600
MANGANESE	MG/KG	1/1	1	0/1	390.000-390.000	390.00	12.000	12.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.000	4.000	2.7
NICKEL	MG/KG	0/1	1	0/1			10.700	10.700	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1440.000-1440.000	1440.00	12.000	12.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.230	0.230	NA
SILICON	MG/KG	0/1	1	0/1			54.700	54.700	1590
SILVER	MG/KG	0/1	1	0/1			0.470	0.470	NA

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
SODIUM	MG/KG	0/1	1	0/1			177.000	177.000	285
THALLIUM	MG/KG	1/1	1	0/1	0.270-0.270	0.27	12.000	12.000	0.49
VANADIUM	MG/KG	1/1	1	0/1	25.400-25.400	25.40	12.000	12.000	37.8
ZINC	MG/KG	1/1	1	1/1	363.000-363.000	363.00	12.000	12.000	82.0

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			11.000	12.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	12.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	12.000	
ACETONE	UG/KG	0/3	3	0/3			11.000	12.000	
BENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/3	3	0/3			11.000	20.000	
STYRENE	UG/KG	0/3	3	0/3			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			11.000	12.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	12.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	12.000	
ACETONE	UG/KG	0/3	3	0/3			11.000	12.000	
BENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
METHYLENE CHLORIDE	UG/KG	1/3	3	1/3	5.000-5.000	5.00	11.000	18.000	
STYRENE	UG/KG	0/3	3	0/3			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							95% Background Concentration Value
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			12.000	13.000	
2-BUTANONE	UG/KG	0/1	1	0/1			12.000	13.000	
2-HEXANONE	UG/KG	0/1	1	0/1			12.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			12.000	13.000	
ACETONE	UG/KG	0/3	3	0/3			12.000	13.000	
BENZENE	UG/KG	0/3	3	0/3			12.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
BROMOFORM	UG/KG	0/3	3	0/3			12.000	13.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			12.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROFORM	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			12.000	13.000	
METHYLENE CHLORIDE	UG/KG	1/3	3	1/3	3.000-3.000	3.00	12.000	20.000	
STYRENE	UG/KG	0/3	3	0/3			12.000	13.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
TOLUENE	UG/KG	0/3	3	0/3			12.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	13.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			12.000	13.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			12.000	13.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			12.000	13.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			12.000	12.000	
2-BUTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
2-HEXANONE	UG/KG	0/1	1	0/1			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOFORM	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			17.000	17.000	
STYRENE	UG/KG	0/1	1	0/1			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
TOLUENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			12.000	12.000	
ACETONE	UG/KG	0/4	4	0/4			12.000	70.000	
BENZENE	UG/KG	0/4	4	0/4			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
BROMOFORM	UG/KG	0/4	4	0/4			12.000	12.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			12.000	12.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			12.000	12.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
CHLOROFORM	UG/KG	0/4	4	0/4			12.000	12.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			12.000	12.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			12.000	12.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
METHYLENE CHLORIDE	UG/KG	4/4	4	4/4	1.000-17.000	7.25	66.000	82.900	
STYRENE	UG/KG	0/4	4	0/4			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			12.000	12.000	
TOLUENE	UG/KG	0/4	4	0/4			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			12.000	12.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			12.000	12.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			6.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			6.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			6.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			6.000	13.000	
2-BUTANONE	UG/KG	0/2	2	0/2			11.000	13.000	
2-HEXANONE	UG/KG	0/2	2	0/2			11.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			11.000	13.000	
ACETONE	UG/KG	0/3	3	0/3			11.000	13.000	
BENZENE	UG/KG	0/3	3	0/3			6.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			6.000	13.000	
BROMOFORM	UG/KG	0/3	3	0/3			6.000	13.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	13.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			6.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			6.000	13.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			6.000	13.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	13.000	
CHLOROFORM	UG/KG	0/3	3	0/3			6.000	13.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	13.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			6.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			6.000	13.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			6.000	13.000	
METHYLENE CHLORIDE	UG/KG	1/3	3	1/3	21.000-21.000	21.00	8.000	10.000	
STYRENE	UG/KG	0/3	3	0/3			6.000	13.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			6.000	13.000	
TOLUENE	UG/KG	0/3	3	0/3			6.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			6.000	13.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			6.000	13.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	13.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	13.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			6.000	13.000	

AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	1/1	1	1/1	28.000-28.000	28.00	12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOFORM	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value.
VOLATILES DEPTH: 15 - 20 FEET									
METHYLENE CHLORIDE	UG/KG	1/1	1	1/1	12.000-12.000	12.00	12.000	12.000	
STYRENE	UG/KG	0/1	1	0/1			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
TOLUENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			350.000	440.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			350.000	440.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			350.000	440.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			350.000	440.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			850.000	2100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			350.000	440.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			350.000	440.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			350.000	440.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			850.000	2100.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			350.000	440.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			350.000	440.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			350.000	440.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			350.000	440.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			350.000	440.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			350.000	440.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			850.000	2100.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			350.000	440.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	4	0/4			350.000	870.000	
3-NITROANILINE	NONE	0/4	4	0/4			850.000	2100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			850.000	2100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			350.000	440.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			350.000	440.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			350.000	440.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			350.000	440.000	
4-NITROANILINE	UG/KG	0/4	4	0/4			850.000	2100.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			850.000	2100.000	
ACENAPHTHENE	UG/KG	1/4	4	1/4	70.000-70.000	70.00	370.000	440.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			350.000	440.000	
ANTHRACENE	UG/KG	2/4	4	2/4	39.000-120.000	79.50	400.000	440.000	
BENZO(A)ANTHRACENE	UG/KG	4/4	4	4/4	30.000-400.000	167.75	67.300	67.300	
BENZO(A)PYRENE	UG/KG	3/4	4	3/4	46.000-340.000	182.00	400.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	3/4	4	3/4	110.000-540.000	376.67	400.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/4	4	2/4	180.000-230.000	205.00	400.000	440.000	
BENZO(K)FLUORANTHENE	UG/KG	3/4	4	3/4	90.000-390.000	226.67	400.000	400.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			930.000	2100.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			350.000	440.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			350.000	440.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			350.000	440.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			350.000	440.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/4	4	1/4	45.000-45.000	45.00	350.000	440.000	
BUTYL BENZYL PHTHALATE	UG/KG	1/4	4	1/4	42.000-42.000	42.00	350.000	440.000	
CARBAZOLE	UG/KG	1/3	3	1/3	74.000-74.000	74.00	370.000	400.000	
CHRYSENE	UG/KG	4/4	4	4/4	43.000-480.000	218.25	67.300	67.300	
DI-N-BUTYL PHTHALATE	UG/KG	0/4	4	0/4			350.000	440.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							95% Background Concentration Value
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			350.000	440.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/4	4	2/4	46.000-57.000	51.50	400.000	440.000	
DIBENZOFURAN	UG/KG	0/4	4	0/4			350.000	440.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			350.000	440.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			350.000	440.000	
FLUORANTHENE	UG/KG	4/4	4	4/4	82.000-970.000	445.50	67.300	67.300	
FLUORENE	UG/KG	1/4	4	1/4	56.000-56.000	56.00	370.000	440.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			350.000	440.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			350.000	440.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			350.000	440.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			350.000	440.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/4	4	2/4	220.000-260.000	240.00	400.000	440.000	
ISOPHORONE	UG/KG	1/4	4	1/4	830.000-830.000	830.00	350.000	440.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			350.000	440.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			350.000	440.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			350.000	440.000	
NITROBENZENE	UG/KG	0/4	4	0/4			350.000	440.000	
P-CHLOROANILINE	UG/KG	0/4	4	0/4			850.000	2100.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			67.300	67.300	
PHENANTHRENE	UG/KG	4/4	4	4/4	53.000-570.000	270.75	350.000	2000.000	
PHENOL	UG/KG	0/4	4	0/4			67.300	67.300	
PYRENE	UG/KG	4/4	4	4/4	77.000-780.000	346.75			

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			370.000	370.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1800.000	1800.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			740.000	740.000	
3-NITROANILINE	NONE	0/1	1	0/1			1800.000	1800.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							95% Background Concentration Value
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1800.000	1800.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			370.000	370.000	
ANTHRACENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(A)ANTHRACENE	UG/KG	1/1	1	1/1	99.000-99.000	99.00	900.000	1800.000	
BENZO(A)PYRENE	UG/KG	1/1	1	1/1	79.000-79.000	79.00	900.000	1800.000	
BENZO(B)FLUORANTHENE	UG/KG	1/1	1	1/1	170.000-170.000	170.00	900.000	1800.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/1	1	1/1	67.000-67.000	67.00	900.000	1800.000	
BENZO(K)FLUORANTHENE	UG/KG	1/1	1	1/1	140.000-140.000	140.00	900.000	1800.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1800.000	1800.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	74.000-74.000	74.00	900.000	1800.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
CHRYSENE	UG/KG	1/1	1	1/1	140.000-140.000	140.00	900.000	1800.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			370.000	370.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			370.000	370.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
FLUORANTHENE	UG/KG	1/1	1	1/1	290.000-290.000	290.00	900.000	1800.000	
FLUORENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			370.000	370.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/1	1	1/1	49.000-49.000	49.00	900.000	1800.000	
ISOPHORONE	UG/KG	0/1	1	0/1			370.000	370.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			370.000	370.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			370.000	370.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
NITROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			370.000	370.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
PHENANTHRENE	UG/KG	1/1	1	1/1	110.000-110.000	110.00	900.000	1800.000	
PHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
PYRENE	UG/KG	1/1	1	1/1	240.000-240.000	240.00	900.000	1800.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			850.000	980.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			350.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			850.000	980.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			350.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			350.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			350.000	390.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			350.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			350.000	390.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	390.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			850.000	980.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			350.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			350.000	390.000	
3-NITROANILINE	NONE	0/3	3	0/3			850.000	980.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			850.000	980.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			350.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	390.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			350.000	390.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			350.000	390.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			850.000	980.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			850.000	980.000	
ACENAPHTHENE	UG/KG	1/3	3	1/3	81.000-81.000	81.00	380.000	390.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			350.000	390.000	
ANTHRACENE	UG/KG	1/3	3	1/3	86.000-86.000	86.00	380.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	2/3	3	2/3	59.000-240.000	149.50	390.000	390.000	
BENZO(A)PYRENE	UG/KG	2/3	3	2/3	48.000-180.000	114.00	390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	2/3	3	2/3	47.000-290.000	168.50	390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/3	3	1/3	110.000-110.000	110.00	380.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	2/3	3	2/3	47.000-120.000	83.50	390.000	390.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			940.000	1700.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			350.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			350.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			350.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			350.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/3	3	2/3	53.000-770.000	411.50	390.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	390.000	
CARBAZOLE	UG/KG	1/3	3	1/3	58.000-58.000	58.00	380.000	390.000	
CHRYSENE	UG/KG	2/3	3	2/3	66.000-270.000	168.00	390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	390.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			350.000	390.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			350.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			350.000	390.000	
FLUORANTHENE	UG/KG	2/3	3	2/3	150.000-630.000	390.00	390.000	390.000	
FLUORENE	UG/KG	1/3	3	1/3	50.000-50.000	50.00	380.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			350.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			350.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			350.000	390.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			350.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/3	3	1/3	110.000-110.000	110.00	380.000	390.000	
ISOPHORONE	UG/KG	0/3	3	0/3			350.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			350.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			350.000	390.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			350.000	390.000	
NITROBENZENE	UG/KG	0/3	3	0/3			350.000	390.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			350.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			850.000	980.000	
PHENANTHRENE	UG/KG	2/3	3	2/3	86.000-420.000	253.00	390.000	390.000	
PHENOL	UG/KG	0/3	3	0/3			350.000	390.000	
PYRENE	UG/KG	2/3	3	2/3	120.000-490.000	305.00	390.000	390.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	450.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	450.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	450.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	450.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			950.000	1100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			390.000	450.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			390.000	450.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			390.000	450.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			950.000	1100.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			390.000	450.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			390.000	450.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			390.000	450.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			390.000	450.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			390.000	450.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			390.000	450.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			950.000	1100.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			390.000	450.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			390.000	450.000	
3-NITROANILINE	NONE	0/3	3	0/3			950.000	1100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			950.000	1100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			390.000	450.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			390.000	450.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			390.000	450.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			390.000	450.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			950.000	1100.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			950.000	1100.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			390.000	450.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			390.000	450.000	
ANTHRACENE	UG/KG	0/3	3	0/3			390.000	450.000	
BENZO(A)ANTHRACENE	UG/KG	1/3	3	1/3	55.000-55.000	55.00	400.000	450.000	
BENZO(A)PYRENE	UG/KG	0/3	3	0/3			390.000	450.000	
BENZO(B)FLUORANTHENE	UG/KG	1/3	3	1/3	60.000-60.000	60.00	400.000	450.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			390.000	450.000	
BENZO(K)FLUORANTHENE	UG/KG	0/3	3	0/3			390.000	450.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			1000.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			390.000	450.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			390.000	450.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			390.000	450.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			390.000	450.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/3	3	1/3	860.000-860.000	860.00	400.000	450.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	450.000	
CARBAZOLE	UG/KG	0/3	3	0/3			390.000	450.000	
CHRYSENE	UG/KG	1/3	3	1/3	61.000-61.000	61.00	400.000	450.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	450.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	450.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			390.000	450.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			390.000	450.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	450.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			390.000	450.000	
FLUORANTHENE	UG/KG	1/3	3	1/3	160.000-160.000	160.00	400.000	450.000	
FLUORENE	UG/KG	0/3	3	0/3			390.000	450.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			390.000	450.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			390.000	450.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			390.000	450.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			390.000	450.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			390.000	450.000	
ISOPHORONE	UG/KG	0/3	3	0/3			390.000	450.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			390.000	450.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			390.000	450.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			390.000	450.000	
NITROBENZENE	UG/KG	0/3	3	0/3			390.000	450.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			390.000	450.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			950.000	1100.000	
PHENANTHRENE	UG/KG	1/3	3	1/3	110.000-110.000	110.00	400.000	450.000	
PHENOL	UG/KG	0/3	3	0/3			390.000	450.000	
PYRENE	UG/KG	1/3	3	1/3	120.000-120.000	120.00	400.000	450.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			400.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			970.000	970.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			400.000	400.000	
3-NITROANILINE	NONE	0/1	1	0/1			970.000	970.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			970.000	970.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			400.000	400.000	
ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1900.000	1900.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
CARBAZOLE	UG/KG	0/1	1	0/1			400.000	400.000	
CHRYSENE	UG/KG	0/1	1	0/1			400.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 3 - 5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			400.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
FLUORENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			400.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	
ISOPHORONE	UG/KG	0/1	1	0/1			400.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			400.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			400.000	400.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
NITROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			970.000	970.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			400.000	400.000	
PHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							95% Background Concentration Value
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			400.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			400.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			400.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			400.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			990.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			400.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			400.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			400.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			990.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			400.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			400.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			400.000	410.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			400.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			400.000	410.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			400.000	410.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			990.000	1000.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			400.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	4	0/4			400.000	410.000	
3-NITROANILINE	NONE	0/4	4	0/4			990.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			990.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			400.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			400.000	410.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			400.000	410.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			400.000	410.000	
4-NITROANILINE	UG/KG	0/4	4	0/4			990.000	1000.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			990.000	1000.000	
ACENAPHTHENE	UG/KG	0/4	4	0/4			400.000	410.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			400.000	410.000	
ANTHRACENE	UG/KG	0/4	4	0/4			400.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	4	0/4			400.000	410.000	
BENZO(A)PYRENE	UG/KG	0/4	4	0/4			400.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	4	0/4			400.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	4	0/4			400.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	4	0/4			400.000	410.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			990.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			400.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			400.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			400.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			400.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/4	4	1/4	120.000-120.000	120.00	400.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			400.000	410.000	
CARBAZOLE	UG/KG	0/4	4	0/4			400.000	410.000	
CHRYSENE	UG/KG	0/4	4	0/4			400.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/4	4	0/4			400.000	410.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			400.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	4	0/4			400.000	410.000	
DIBENZOFURAN	UG/KG	0/4	4	0/4			400.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			400.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			400.000	410.000	
FLUORANTHENE	UG/KG	0/4	4	0/4			400.000	410.000	
FLUORENE	UG/KG	0/4	4	0/4			400.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			400.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			400.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			400.000	410.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			400.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	4	0/4			400.000	410.000	
ISOPHORONE	UG/KG	0/4	4	0/4			400.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			400.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			400.000	410.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			400.000	410.000	
NITROBENZENE	UG/KG	0/4	4	0/4			400.000	410.000	
P-CHLOROANILINE	UG/KG	0/4	4	0/4			400.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			990.000	1000.000	
PHENANTHRENE	UG/KG	0/4	4	0/4			400.000	410.000	
PHENOL	UG/KG	1/4	4	1/4	710.000-710.000	710.00	400.000	410.000	
PYRENE	UG/KG	0/4	4	0/4			400.000	410.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			440.000	440.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			440.000	440.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			440.000	440.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			440.000	440.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1100.000	1100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1100.000	1100.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			440.000	440.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			440.000	440.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			440.000	440.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			440.000	440.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1100.000	1100.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			440.000	440.000	
3-NITROANILINE	NONE	0/1	1	0/1			1100.000	1100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1100.000	1100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			440.000	440.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			440.000	440.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1100.000	1100.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1100.000	1100.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			440.000	440.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			440.000	440.000	
ANTHRACENE	UG/KG	0/1	1	0/1			440.000	440.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			440.000	440.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			440.000	440.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			440.000	440.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			440.000	440.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			440.000	440.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1100.000	1100.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			440.000	440.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			440.000	440.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			440.000	440.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			440.000	440.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			440.000	440.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			440.000	440.000	
CARBAZOLE	UG/KG	0/1	1	0/1			440.000	440.000	
CHRYSENE	UG/KG	0/1	1	0/1			440.000	440.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			440.000	440.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 10 - 15 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			440.000	440.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			440.000	440.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			440.000	440.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			440.000	440.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			440.000	440.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			440.000	440.000	
FLUORENE	UG/KG	0/1	1	0/1			440.000	440.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			440.000	440.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			440.000	440.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			440.000	440.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			440.000	440.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			440.000	440.000	
ISOPHORONE	UG/KG	0/1	1	0/1			440.000	440.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			440.000	440.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			440.000	440.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			440.000	440.000	
NITROBENZENE	UG/KG	0/1	1	0/1			440.000	440.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			1100.000	1100.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			440.000	440.000	
PHENOL	UG/KG	0/1	1	0/1			440.000	440.000	
PYRENE	UG/KG	0/1	1	0/1			440.000	440.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			970.000	970.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			390.000	390.000	
3-NITROANILINE	NONE	0/1	1	0/1			970.000	970.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			970.000	970.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			970.000	970.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
CARBAZOLE	UG/KG	0/1	1	0/1			390.000	390.000	
CHRYSENE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			390.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			390.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
ISOPHORONE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
NITROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			390.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			970.000	970.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			390.000	390.000	
PHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.500	21.000	
4,4'-DDE	UG/KG	0/3	3	0/3			3.500	21.000	
4,4'-DDT	UG/KG	0/3	3	0/3			3.500	21.000	
ALDRIN	UG/KG	0/3	3	0/3			1.800	11.000	
ALPHA-BHC	UG/KG	0/3	3	0/3			1.800	11.000	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	110.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			35.000	110.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			72.000	110.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			35.000	110.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			35.000	110.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			35.000	110.000	
AROCLOR-1254	UG/KG	1/3	3	1/3	2200.000-2200.000	2200.00	35.000	210.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			35.000	210.000	
BETA-BHC	UG/KG	0/3	3	0/3			1.800	11.000	
DELTA-BHC	UG/KG	0/3	3	0/3			1.800	11.000	
DIELDRIN	UG/KG	0/3	3	0/3			3.500	21.000	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.500	21.000	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.500	21.000	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			1.800	11.000	
ENDRIN	UG/KG	0/3	3	0/3			3.500	21.000	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.500	4.000	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.500	21.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			1.800	11.000	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	110.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			1.800	11.000	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			1.800	11.000	
METHOXYCHLOR	UG/KG	0/3	3	0/3			18.000	110.000	
TOXAPHENE	UG/KG	0/3	3	0/3			180.000	210.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			90.000	180.000	
4,4'-DDE	UG/KG	0/1	1	0/1			90.000	180.000	
4,4'-DDT	UG/KG	0/1	1	0/1			90.000	180.000	
ALDRIN	UG/KG	0/1	1	0/1			45.000	90.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			45.000	90.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			450.000	900.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			450.000	900.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			450.000	900.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			450.000	900.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			450.000	900.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			450.000	900.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			900.000	1800.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			900.000	1800.000	
BETA-BHC	UG/KG	0/1	1	0/1			45.000	90.000	
DELTA-BHC	UG/KG	0/1	1	0/1			45.000	90.000	
DIELDRIN	UG/KG	0/1	1	0/1			90.000	180.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			90.000	180.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			90.000	180.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			45.000	90.000	
ENDRIN	UG/KG	0/1	1	0/1			90.000	180.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			90.000	180.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			45.000	90.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: .5 - 1 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			450.000	900.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			45.000	90.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			45.000	90.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			450.000	900.000	
TOXAPHENE	UG/KG	0/1	1	0/1			900.000	1800.000	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.500	3.900	
4,4'-DDE	UG/KG	0/2	2	0/2			3.500	3.900	
4,4'-DDT	UG/KG	0/2	2	0/2			3.500	3.900	
ALDRIN	UG/KG	0/2	2	0/2			1.800	2.000	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.800	2.000	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	2.000	
AROCLOR-1016	UG/KG	0/2	2	0/2			35.000	39.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			72.000	79.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			35.000	39.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			35.000	39.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			35.000	39.000	
AROCLOR-1254	UG/KG	1/2	2	1/2	2400.000-2400.000	2400.00	35.000	39.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			35.000	39.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.800	2.000	
DELTA-BHC	UG/KG	0/2	2	0/2			1.800	2.000	
DIELDRIN	UG/KG	0/2	2	0/2			3.500	3.900	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.500	3.900	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.500	3.900	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.800	2.000	
ENDRIN	UG/KG	0/2	2	0/2			3.500	3.900	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.500	3.900	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.500	3.900	

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AREA: Laboratory Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.800	2.000	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	2.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.800	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.800	2.000	
METHOXYCHLOR	UG/KG	0/2	2	0/2			18.000	20.000	
TOXAPHENE	UG/KG	0/2	2	0/2			180.000	200.000	

000972

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.900	4.400	
4,4'-DDE	UG/KG	0/3	3	0/3			3.900	4.400	
4,4'-DDT	UG/KG	0/3	3	0/3			3.900	4.400	
ALDRIN	UG/KG	0/3	3	0/3			2.000	2.300	
ALPHA-BHC	UG/KG	0/3	3	0/3			2.000	2.300	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			2.000	2.300	
AROCLOR-1016	UG/KG	0/3	3	0/3			39.000	44.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			79.000	89.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			39.000	44.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			39.000	44.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			39.000	44.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			39.000	44.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			39.000	44.000	
BETA-BHC	UG/KG	0/3	3	0/3			2.000	2.300	
DELTA-BHC	UG/KG	0/3	3	0/3			2.000	2.300	
DIELDRIN	UG/KG	0/3	3	0/3			3.900	4.400	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.900	4.400	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.900	4.400	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			2.000	2.300	
ENDRIN	UG/KG	0/3	3	0/3			3.900	4.400	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.900	4.400	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.900	4.400	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			2.000	2.300	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			2.000	2.300	
HEPTACHLOR	UG/KG	0/3	3	0/3			2.000	2.300	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			2.000	2.300	
METHOXYCHLOR	UG/KG	0/3	3	0/3			20.000	23.000	
TOXAPHENE	UG/KG	0/3	3	0/3			200.000	230.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			4.100	4.100	
4,4'-DDE	UG/KG	0/1	1	0/1			4.100	4.100	
4,4'-DDT	UG/KG	0/1	1	0/1			4.100	4.100	
ALDRIN	UG/KG	0/1	1	0/1			2.100	2.100	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.100	2.100	
AROCLOR-1016	UG/KG	0/1	1	0/1			41.000	41.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			82.000	82.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			41.000	41.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			41.000	41.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			41.000	41.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			41.000	41.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			41.000	41.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
DELTA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
DIELDRIN	UG/KG	0/1	1	0/1			4.100	4.100	
ENDOSULFAN II	UG/KG	0/1	1	0/1			4.100	4.100	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			4.100	4.100	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.100	2.100	
ENDRIN	UG/KG	0/1	1	0/1			4.100	4.100	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			4.100	4.100	
ENDRIN KETONE	UG/KG	0/1	1	0/1			4.100	4.100	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.100	2.100	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.100	2.100	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.100	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.100	2.100	
METHOXYCHLOR	UG/KG	0/1	1	0/1			21.000	21.000	
TOXAPHENE	UG/KG	0/1	1	0/1			210.000	210.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/4	4	0/4			3.900	4.100	
4,4'-DDE	UG/KG	0/4	4	0/4			3.900	4.100	
4,4'-DDT	UG/KG	0/4	4	0/4			3.900	4.100	
ALDRIN	UG/KG	0/4	4	0/4			2.000	2.100	
ALPHA-BHC	UG/KG	0/4	4	0/4			2.000	2.100	
ALPHA-CHLORDANE	UG/KG	0/4	4	0/4			2.000	2.100	
AROCLOR-1016	UG/KG	0/4	4	0/4			39.000	41.000	
AROCLOR-1221	UG/KG	0/4	4	0/4			80.000	83.000	
AROCLOR-1232	UG/KG	0/4	4	0/4			39.000	41.000	
AROCLOR-1242	UG/KG	0/4	4	0/4			39.000	41.000	
AROCLOR-1248	UG/KG	0/4	4	0/4			39.000	41.000	
AROCLOR-1254	UG/KG	1/4	4	1/4	76.000-76.000	76.00	39.000	40.000	
AROCLOR-1260	UG/KG	0/4	4	0/4			39.000	41.000	
BETA-BHC	UG/KG	0/4	4	0/4			2.000	2.100	
DELTA-BHC	UG/KG	0/4	4	0/4			2.000	2.100	
DIELDRIN	UG/KG	0/4	4	0/4			3.900	4.100	
ENDOSULFAN II	UG/KG	0/4	4	0/4			3.900	4.100	
ENDOSULFAN SULFATE	UG/KG	0/4	4	0/4			3.900	4.100	
ENDOSULFAN-I	UG/KG	0/4	4	0/4			2.000	2.100	
ENDRIN	UG/KG	0/4	4	0/4			3.900	4.100	
ENDRIN ALDEHYDE	UG/KG	0/4	4	0/4			3.900	4.100	
ENDRIN KETONE	UG/KG	0/4	4	0/4			3.900	4.100	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/4	4	0/4			2.000	2.100	
GAMMA-CHLORDANE	UG/KG	0/4	4	0/4			2.000	2.100	
HEPTACHLOR	UG/KG	0/4	4	0/4			2.000	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/4	4	0/4			2.000	2.100	
METHOXYCHLOR	UG/KG	0/4	4	0/4			20.000	21.000	
TOXAPHENE	UG/KG	0/4	4	0/4			200.000	210.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			4.300	4.300	
4,4'-DDE	UG/KG	0/1	1	0/1			4.300	4.300	
4,4'-DDT	UG/KG	0/1	1	0/1			4.300	4.300	
ALDRIN	UG/KG	0/1	1	0/1			2.200	2.200	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.200	2.200	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.200	2.200	
AROCLOR-1016	UG/KG	0/1	1	0/1			43.000	43.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			88.000	88.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			43.000	43.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			43.000	43.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			43.000	43.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			43.000	43.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			43.000	43.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.200	2.200	
DELTA-BHC	UG/KG	0/1	1	0/1			2.200	2.200	
DIELDRIN	UG/KG	0/1	1	0/1			4.300	4.300	
ENDOSULFAN II	UG/KG	0/1	1	0/1			4.300	4.300	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			4.300	4.300	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.200	2.200	
ENDRIN	UG/KG	0/1	1	0/1			4.300	4.300	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			4.300	4.300	
ENDRIN KETONE	UG/KG	0/1	1	0/1			4.300	4.300	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.200	2.200	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.200	2.200	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.200	2.200	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.200	2.200	
METHOXYCHLOR	UG/KG	0/1	1	0/1			22.000	22.000	
TOXAPHENE	UG/KG	0/1	1	0/1			220.000	220.000	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.800	3.800	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			78.000	78.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			38.000	38.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.000	2.000	
ENDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.800	3.800	

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AREA: Laboratory Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

Page 683 is missing. It might have been a stapling problem, because 682 is the end of a section and 684 is the start of a section. The shield copy does not have 683 either.

D.2.10 ADMINISTRATION AREA

The administration area, as shown in Figure D.2-14, is located in the southern portion of the southeast quadrant of the former production area. The area is bounded on the south by the parking lot; on the west by the storm sewer lift station and trailer complexes; on the north by Plants 7, 5, and 6; and on the east by the main electrical substation. The administration area consists of the administration building (14A), service building (11), occupational safety and health building (53A), in-vivo building (53B), security building (28A), human resources building (28B), old truck scale (31B), engine house/garage (31A), heavy equipment garage (46), and trailer complexes. As indicated by the types of buildings, primary functions of this area are administration, safety and health, locker/shower room, cafeteria, garage, and equipment storage. The potential sources of chemical contamination at the administration area are the chemical solvents, paints, and lubricants that were reportedly used in the engine and equipment garages. Table D-1 summarizes parameters known to be present or used in the administration area.

Soil samples from the administration area were collected and analyzed under five distinct soil sampling programs. The sampling locations are shown in Figure D.2-14. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates, as referenced in D.1.2.

The first sampling program in the administration area, excluding the engine garage and heavy equipment building area, was a surface soil (0 to 1.5 feet) sampling program conducted under the site-wide RI/FS Program. Sampling locations where soil samples were collected under this program were identified by boring numbers "Zone x-xx,". This surface soil sampling was completed in the fall of 1988.

The second investigation was performed in the engine garage and heavy equipment building area in accordance with the PASA Work Plan. This investigation was prompted by the underground petroleum tanks located near the garage area. The PASA program consisted of three borings (1172, 1173, and 1174), which were drilled and sampled to a depth of 18 feet below the ground surface. Boring 1172 was located in the area excavated in the fall of 1991 during an extension of the UST removal action; therefore, the sample results were not used in the analysis of the nature and extent of contamination in the administration area.

The third sampling program was performed under the FEMP Underground Petroleum Storage Tank Closure Program during the period of April to December 1990. Five USTs (Tank Nos. 1, 2, 8, 9, and 10) and all associated system components were permanently removed. After removal, the soil from each of the three excavations was sampled. A total of 17 soil samples were collected from excavations at previously undisturbed locations. Based on field screening results, 9 samples were submitted to the laboratory for analysis.

To determine the extent of contamination in the southern portion of the southeast quadrant of the production area, a soil sampling program was initiated in October 1992 under the Operable Unit 5 RI/FS Work Plan. Soil samples were collected from four borings (1866, 1867, 1868, and 1869) located in the administration/services area and to the south of the garage and heavy equipment building area. One additional boring (1841) was drilled to investigate the interaction of the perched groundwater and the Clearwell line and to investigate the extent of contamination found in the piezometers in the north of the administration area.

The fifth sampling program in the administration area was conducted under the Project Specific Plan for Surface and Subsurface Soil Sampling Investigation, dated June 1993. Three deep borings were drilled and sampled in July 1993 to a depth of 20 feet or until groundwater was encountered. As shown in Figure D.2-14, Boring 11108 was located on the south side of the former fuel tank area east of the engine garage. Boring 11110 was located southeast of the garage where significant uranium contamination has been found in the perched groundwater. Boring 11109 was sampled south of the occupational safety and health building to investigate the lateral extent of contamination downgradient of the garage area. All the samples were analyzed for full radiological and HSL parameters.

Based on the results of the initial soil sampling program, a soil removal action in the area east of the service building was performed in 1991 as part of the construction of the occupational safety and health building annex. Upon completion of the removal action, soil samples were collected at the surface of the excavation, 1.0-foot, and 2.0-foot depth intervals. Analytical results indicated that levels of total uranium and total thorium were less than the "build-over criteria," 35 pCi/g. The approximate boundary of this removal action is shown in Figure D.2-14.

The five USTs and system components that were located northeast of the engine house/garage (Building 31A) were removed during September 1990 with three separate excavations resulting from

the removal work. Laboratory analysis of soil samples collected at the time of system closure indicated that residual soil contamination in excess of action levels for BTEX and for Total Petroleum Hydrocarbons remained outside the limits of two of the three tank excavations. Additional excavation during the fall of 1991 resulted in extension of the previously excavated areas to form one excavation approximately 11 feet deep and extending horizontally until structural or other constraints to excavation were encountered. The approximate limits of the excavation are also shown in Figure D.2-14.

Surface Soil

The maximum detection of each constituent in the surface soil is compared to the established 95th percentile background level (background), if any, of each parameter. Table D.2-10 presents the distribution of radiological and chemical constituents in various depth intervals of the surface and subsurface soil in the administration area. Isoconcentration maps showing the lateral extent of the various constituents are presented in the Plates.

Radiochemical results for the administration area indicated that the radiological contaminants in the surface soil primarily include the uranium isotopes (uranium-238 and uranium-234), uranium decay products (thorium-230, radium-226, and uranium-235/236), thorium isotopes (thorium-232 and thorium-228), and thorium decay product (radium-228). Elevated activities of radium-238, uranium-234, and total uranium were detected in all 0- to 0.5-foot samples (up to 21 samples) collected in this area and levels of detections decreased as the depths increased. Ranges of activities of uranium-238, uranium-234, and total uranium throughout the surface soil depths were 0.40 to 125.00 pCi/g, 1.50 to 50.80 pCi/g, and 0.40 to 319.00 mg/kg, respectively. The maximum activities of uranium isotopes and total uranium were present at levels greater than five times background throughout the surface soil (0 to 0.5 feet, 0.5 to 1.0 feet, and 1.0 to 1.5 feet). Most of the highly elevated activities of uranium isotopes were observed in the surface soil depths in the area of the engine house and heavy equipment garage.

Uranium decay products, including thorium-230 and uranium-235/236, were also present in the upper surface soil depths. Activities of thorium-230 and uranium-235/236 were detected at levels of 1.00 to 9.92 pCi/g and 0.30 to 3.48 pCi/g, respectively, in a maximum of 15 samples collected from the depth of 0- to 0.5-foot primarily in the area of the engine house and heavy equipment garage. Activities of these radionuclides were present at significant decreased levels and only in a few samples

collected from the lower depths of the surface soil in the area. In addition, the maximum activities of thorium isotopes and a thorium decay product primarily were detected at concentrations less than two times background in the depth interval of 0 to 0.5 feet. Activities of thorium-232, thorium-228, and total thorium in this interval ranged 0.40 to 1.70 pCi/g, 0.50 to 1.50 pCi/g, and 3.65 to 19.00 mg/kg, respectively.

With the exception of plutonium-238 detected in the 0- to 0.5-foot depth interval, neptunium-237, ruthenium-106, and plutonium isotopes were not detected in samples collected from the surface soil. Plutonium-238 activities were detected in the range of 0.21 to 0.65 pCi/g at sampling locations of Borings 1866 and 1174, both located near the eastern boundary of the area. Activities of strontium-90 and technetium-99 were present in the lower depth intervals of surface soil in relatively low levels of 1.10 pCi/g and 4.40 to 5.50 pCi/g, respectively.

Most of the inorganic parameters were detected in samples collected from the surface soil at depths of 0 to 0.5 feet and 1.0 to 1.5 feet. Concentrations of calcium, magnesium, and sodium were detected at levels greater five times background. In addition, beryllium was detected at concentrations greater than two times background in samples collected from the 1.0- to 1.5-foot depth interval at Boring 11109.

Volatile organic compounds (VOCs) were detected in a few samples from surface soil depth intervals of 0 to 0.5 feet and 1.0 to 1.5 feet. Some of the VOCs, including acetone and methyl chloride are solvents used in laboratory analyses. Ethylbenzene and xylenes are constituents of petroleum products. Concentrations of the detected VOC ranged from 2 μg/kg to 13 μg/kg.

Various semivolatile organic compounds, primarily PAHs, were detected in the surface soil samples from depth intervals of 0 to 0.5 feet and 1.0 to 1.5 feet. Most of the semivolatile organic compounds were found in the top surface soil (0 to 0.5 feet) samples. Several pesticides and one PCB compound (Aroclor-1254) also were detected in the top surface soil samples. No pesticides or PCBs were found in the soil samples taken at 1.0- to 1.5-foot depths.

Subsurface Soil

Radiochemical results for subsurface soil in the administration area indicated that the major radiological contaminants in the subsurface soil include uranium-238 and uranium-234, which are

present at levels more than two times background. Uranium-238 was detected in the subsurface soil at depths of 1.5 to 3.0 feet and 5.0 to 10.0 feet at levels greater than five times background. Although data of individual isotopes were not analyzed, total uranium concentrations were reported in excess of two times background in depth intervals of 10.0 to 15.0 feet and 15.0 to 20.0 feet. Concentrations of total thorium were reported in excess of two times background in the samples collected from depths of 1.5 to 3.0 feet and 5.0 to 10.0 feet. Radium-226, a decay product of uranium-238, was detected at levels exceeding, but less than two times, background at depth intervals of 1.5 to 3.0 feet and 5.0 to 10.0 feet. No other radiological constituents were found in concentrations higher than background in the subsurface soil samples in the administration area.

Several inorganic contaminants were found in subsurface soil samples at depths of 1.5 to 3.0 feet and 5.0 to 10.0 feet. Concentrations of barium, beryllium, cadmium, and lead were detected in samples from the 1.5- to 3.0-foot depth interval and whereas beryllium was also found at depths of 5.0 to 10.0 feet at levels slightly greater than two times background. Some inorganic constituents, e.g., arsenic, barium, copper, lead, sodium, and zinc, were detected at concentrations greater than, but less than two times, background in samples collected to depths of 10.0 feet.

Acetone and methylene chloride, which are common laboratory solvents, were detected in the subsurface soil samples to a depth of 5.0 to 10.0 feet. The VOCs were detected at concentrations in a range of 2 μg/kg to 69 μg/kg at subsurface soil sampling locations of Borings 1841, 11108, 11109, and 11110. No petroleum products, including benzene, toluene, ethylbenzene, and xylenes (BTEX), were detected in the subsurface soil samples.

PAHs similar to those detected in the surface soil samples were detected in a few of the subsurface soil samples collected from 1.5- to 3.0-foot depths at levels ranging from 42 μg/kg to 440 μg/kg. A few of the PAHs were also detected at depths of 5.0 to 10.0 feet at low levels. Endosulfan-I was the only pesticide found in samples from 1.5- to 3.0-foot depths. These compounds were detected in Borings 11108, 11109, and 11110.

Conclusion

Radiological contamination in the administration area appears to be primarily in the surface soil. Activities of radionuclides, mainly uranium isotopes and total uranium, were detected in the area of

the engine house and heavy equipment building. Decay products of uranium and thorium were detected in the surface soil depth intervals, but not in subsurface soil at depths of 10.0 to 15.0 feet.

The majority of the chemical contamination was detected in the surface soil as well. Barium, beryllium, and cadmium were the primary inorganic contaminants found in the surface soil samples collected from the area of the engine house and heavy equipment building. The levels of inorganic contaminants generally decrease as the depths increase.

Chemical contamination by VOCs, semi-VOCs, and pesticides/PCBs has been observed primarily in surface soil samples collected from the engine garage and heavy equipment building area to depths of 3 feet. Except for semivolatiles, concentrations of the organic contaminants were present at relatively low levels. Several pesticides and Aroclor-1254 were detected in samples collected from Boring 11109, which is located south of the Health and Safety Building.

The apparent source of radiological and chemical contamination in the area of the administration/ services buildings is airborne particulates originating from process plants within the production area. Contamination in the vicinity of the engine garage and heavy equipment building may have resulted from surface deposits of the radionuclides and chemical compounds as a result of equipment maintenance and washing over the years of operation.

TABLE D.2-10
ADMINISTRATION AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	15	■	■	■	■	●	■	●	●	●	●	-	-	X	-	-	-	○
0.5 - 1	2	■	■	■	●	●	■	○	○	○	●	-	-	-	-	X	-	-
1 - 1.5	4	■	■	■	●	○	▒	○	○	○	○	-	-	-	▒	X	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	4	■	■	▒	○	●	●	○	●	-	○							
3 - 5	1		▒						●									
5 - 10	7	■	■	▒	○	●	-	○	▒	○	○							
10 - 15	3		▒			○			○	○		-	-	-	-		-	-
15 - 20	4		▒						○									

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	4	●	-	●	●	●	-	■	●	○	●	-	●	●	■	●	-	-	●	●	-	○	-	■	○	●	●
0.5 - 1	0																										
1 - 1.5	3	●	-	○	●	▒	●	■	●	○	●	-	●	▒	■	○	-	-	●	●	-	○	-	■	○	○	○
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	3	○	-	●	▒	▒	▒	○	○	●	●	-	○	●	●	●	-	-	●	○	-	○	-	○	○	○	●
3 - 5	0																										
5 - 10	6	○	-	○	●	▒	-	○	○	○	●	-	○	●	○	○	-	-	○	○	-	○	-	●	○	○	●
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

○ Detection less than 95 percentile background value.

"Blank" - Not analyzed.

- Analyzed and not detected.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-10
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)							SEMIVOLATILES (ug/kg)																				PESTICIDES/PCBs (ug/kg)										
	Number of Samples	2-Hexanone	Acetone	Ethylbenzene	Methylene chloride	Xylenes, total		Number of Samples	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Carbazole	Chrysene	Di-n-butyl phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Number of Samples	4,4'-DDE	4,4'-DDT	Alpha-Chlordane	Aroclor-1254	Dieldrin	Endosulfan-I	Heptachlor Epoxide			
Surface Soil:																																						
0 - 0.5	4		-	X	X	X		4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4	X	X	X	X	X	-	X			
0.5 - 1	0							0																				0										
1 - 1.5	3		X	-	X	-		3	-	-	X	X	X	X	X	X	-	X	-	-	-	X	-	X	-	X	X	3	-	-	-	-	-	-	-			
Subsurface Soil:																																						
1.5 - 3	3		-	-	X	-		3	-	-	X	X	X	X	X	X	-	X	-	X	-	X	-	X	-	X	X	3	-	-	-	-	-	X	-			
3 - 5	0							0																				0										
5 - 10	6		X	-	X	-		6	-	-	-	-	-	-	-	X	-	-	-	-	-	X	-	-	-	X	X	6	-	-	-	-	-	-	-			
10 - 15	2	X	-	-	-	-		0																				0										
15 - 20	0							0																				0										

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

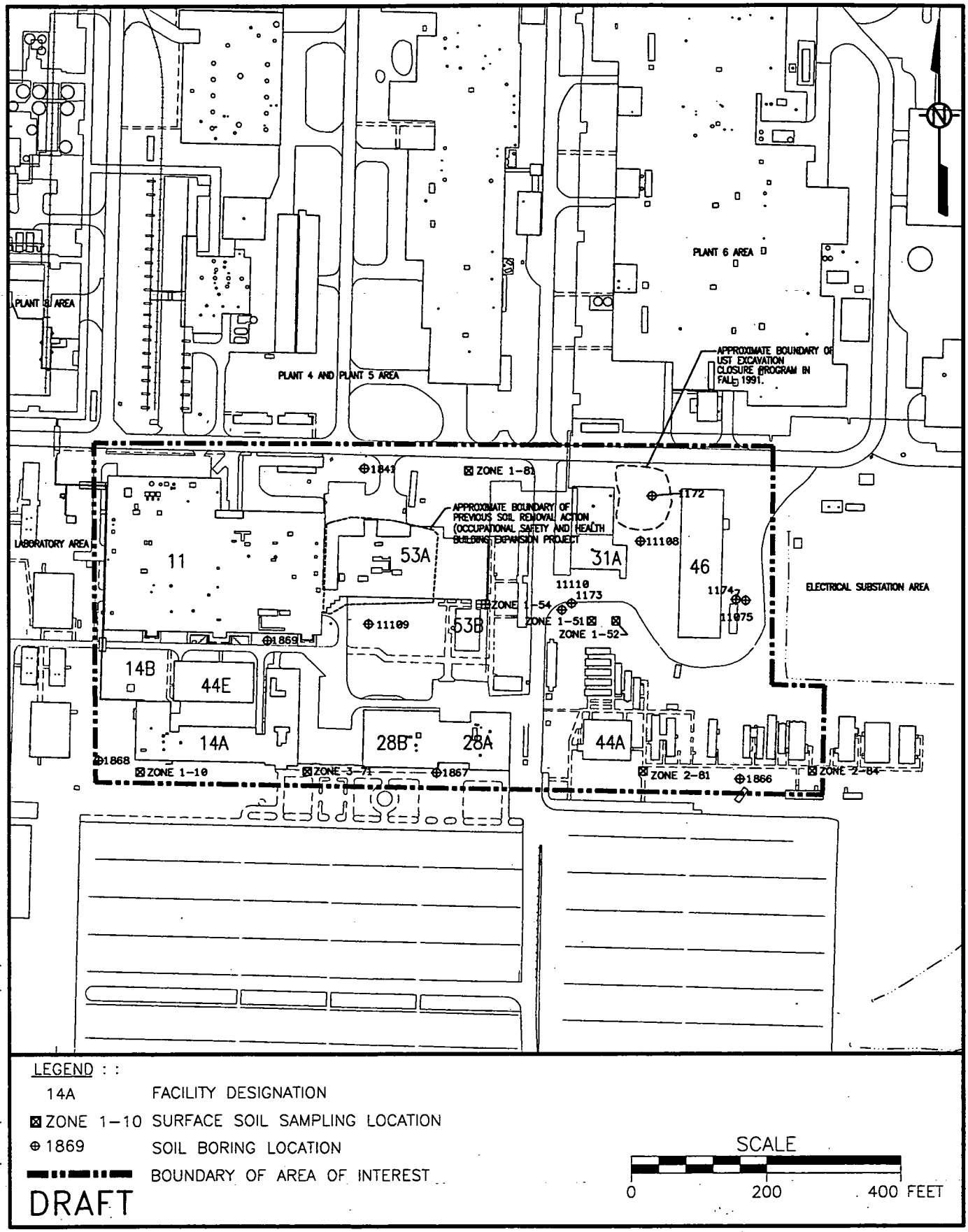

FIGURE D.2-14. ADMINISTRATION AREA

Administration Area

Summary Soil Statistics

AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	15/15	15	15/15	4.400-125.000	28.72	11.000	12.000	1.24
URANIUM, TOTAL	MG/KG	20/20	0	20/20	5.800-297.000	83.53	11.000	12.000	3.73
URANIUM-234	PCI/G	15/15	15	15/15	4.000-50.800	20.67	11.000	12.000	1.24
THORIUM-230	PCI/G	15/15	15	9/15	1.000-9.920	3.14	11.000	12.000	1.97
RADIUM-226	PCI/G	17/17	17	2/17	0.300-2.600	1.09	11.000	12.000	1.42
URANIUM-235/236	PCI/G	11/15	15	11/15	0.300-3.480	1.55	0.200	0.600	0.156
THORIUM-232	PCI/G	14/15	15	1/15	0.400-1.700	0.87	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	15/18	0	2/18	3.648-19.000	8.67	5.472	23.000	12.4
RADIUM-228	PCI/G	13/17	17	1/17	0.700-1.300	0.99	0.500	0.500	1.25
THORIUM-228	PCI/G	14/14	14	1/14	0.500-1.500	0.90	11.000	12.000	1.43
NEPTUNIUM-237	PCI/G	0/12	12	0/12			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	0/13	13	0/13			0.200	0.600	NA
PLUTONIUM-238	PCI/G	2/13	13	2/13	0.207-0.649	0.43	0.200	0.600	NA
STRONTIUM-90	PCI/G	0/12	12	0/12			0.500	2.000	0.424
TECHNETIUM-99	PCI/G	0/10	10	0/10			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/13	13	0/13			1.000	1.000	NA
CESIUM-137	PCI/G	8/13	13	0/13	0.228-0.700	0.46	0.200	0.200	0.711
GROSS ALPHA	PCI/G	4/4	0	4/4	4.340-46.900	25.36	11.000	12.000	
GROSS BETA	PCI/G	4/4	0	4/4	4.530-42.300	22.88	11.000	12.000	

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	2/2	0	2/2	7.400-26.000	16.70	0.600	0.600	1.24
URANIUM, TOTAL	MG/KG	2/2	0	2/2	21.000-80.000	50.50	0.600	0.600	3.73
URANIUM-234	PCI/G	2/2	0	2/2	7.000-20.000	13.50	0.600	0.600	1.24
THORIUM-230	PCI/G	2/2	0	1/2	1.500-3.000	2.25	0.600	0.600	1.97
RADIUM-226	PCI/G	2/2	0	1/2	0.800-1.700	1.25	0.600	0.600	1.42
URANIUM-235/236	PCI/G	1/2	0	1/2	1.300-1.300	1.30	0.600	0.600	0.156
THORIUM-232	PCI/G	2/2	0	0/2	0.800-1.000	0.90	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	2/2	0	0/2	7.296-9.120	8.21	0.600	0.600	12.4
RADIUM-228	PCI/G	2/2	0	0/2	0.700-1.100	0.90	0.600	0.600	1.25
THORIUM-228	PCI/G	2/2	0	1/2	0.800-1.500	1.15	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/2	0	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	0	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	0	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	0	0/2			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/2	0	1/2	4.400-4.400	4.40	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	0	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	0	0/2			0.200	0.200	0.711

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	5/5	0	4/5	0.400-15.600	7.50	11.000	12.000	1.24
URANIUM, TOTAL	MG/KG	5/5	0	4/5	1.500-43.000	20.72	11.000	12.000	3.73
URANIUM-234	PCI/G	5/5	0	4/5	0.400-12.400	6.16	11.000	12.000	1.24
THORIUM-230	PCI/G	5/5	0	1/5	0.700-3.500	1.46	11.000	12.000	1.97
RADIUM-226	PCI/G	4/5	0	0/5	0.500-1.200	0.90	0.250	0.250	1.42
URANIUM-235/236	PCI/G	2/5	0	2/5	0.200-0.500	0.35	0.100	0.600	0.156
THORIUM-232	PCI/G	5/5	0	0/5	0.400-1.200	0.70	11.000	12.000	1.36
THORIUM, TOTAL	MG/KG	5/5	0	0/5	3.648-10.944	6.38	11.000	12.000	12.4
RADIUM-228	PCI/G	1/5	0	0/5	1.200-1.200	1.20	0.500	0.800	1.25
THORIUM-228	PCI/G	4/5	0	0/5	0.400-1.300	0.73	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/2	0	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	0	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	0	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/2	0	1/2	1.100-1.100	1.10	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/2	0	1/2	5.500-5.500	5.50	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	0	0/2			1.000	1.300	NA
CESIUM-137	PCI/G	0/2	0	0/2			0.200	0.200	0.711

AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	3/3	3	2/3	0.600-8.900	4.07	10.000	12.000	1.12
URANIUM, TOTAL	MG/KG	10/10	0	9/10	1.400-78.000	29.21	10.000	12.000	3.69
URANIUM-234	PCI/G	3/3	3	2/3	0.400-4.300	2.43	10.000	12.000	1.04
THORIUM-230	PCI/G	3/3	3	0/3	0.300-1.300	0.87	10.000	12.000	1.91
RADIUM-226	PCI/G	1/3	3	1/3	2.000-2.000	2.00	0.250	0.250	1.47
URANIUM-235/236	PCI/G	1/3	3	1/3	0.200-0.200	0.20	0.100	0.100	0.150
THORIUM-232	PCI/G	2/3	3	0/3	0.800-0.900	0.85	0.100	0.100	1.26
THORIUM, TOTAL	MG/KG	6/8	0	1/8	0.912-18.000	8.24	23.000	23.000	11.1
RADIUM-228	PCI/G	0/3	3	0/3			0.500	0.500	1.31
THORIUM-228	PCI/G	2/3	3	0/3	0.800-0.900	0.85	0.100	0.100	1.38

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	1/1	0	1/1	16.000-16.000	16.00			3.69
THORIUM, TOTAL	MG/KG	1/1	0	1/1	18.000-18.000	18.00			11.1

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	4/4	4	1/4	0.700-7.200	2.40	12.000	13.000	1.12
URANIUM, TOTAL	MG/KG	13/14	0	9/14	0.700-23.000	9.45	11.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	2/4	0.600-2.900	1.38	12.000	13.000	1.04
THORIUM-230	PCI/G	5/5	5	0/5	0.800-1.300	1.04	12.000	13.000	1.91
RADIUM-226	PCI/G	6/6	6	1/6	0.300-1.600	0.92	12.000	13.000	1.47
URANIUM-235/236	PCI/G	0/4	4	0/4			0.100	0.100	0.150
THORIUM-232	PCI/G	5/5	5	0/5	0.700-1.000	0.80	12.000	13.000	1.26
THORIUM, TOTAL	MG/KG	10/12	0	2/12	4.510-23.000	9.76	18.000	23.000	11.1
RADIUM-228	PCI/G	1/6	6	0/6	0.600-0.600	0.60	0.500	0.500	1.31
THORIUM-228	PCI/G	5/5	5	0/5	0.700-1.100	0.88	12.000	13.000	1.38

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	8/10	0	7/10	3.090-15.000	10.04	11.000	11.000	3.69
RADIUM-226	PCI/G	2/2	2	0/2	0.930-1.040	0.99	6.000	6.000	1.47
THORIUM, TOTAL	MG/KG	3/7	0	0/7	3.310-8.930	6.92	18.000	23.000	11.1
RADIUM-228	PCI/G	2/2	2	0/2	0.780-0.870	0.83	6.000	6.000	1.31
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA
GROSS ALPHA	PCI/G	2/2	0	2/2	14.300-14.500	14.40	6.000	6.000	
GROSS BETA	PCI/G	2/2	0	2/2	19.600-25.400	22.50	6.000	6.000	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	4/4	0	4/4	11.000-17.000	13.15	18.000	23.000	3.69
THORIUM, TOTAL	MG/KG	2/4	0	0/4	5.300-6.690	6.00	18.000	23.000	11.1

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	4/4	4	2/4	8520.000-19800.000	13300.00	11.000	12.000	11900
ANTIMONY	MG/KG	0/3	3	0/3			2.400	2.600	NA
ARSENIC	MG/KG	4/4	4	1/4	3.400-11.600	7.35	11.000	12.000	8.20
BARIUM	MG/KG	4/4	4	2/4	74.000-183.000	124.33	11.000	12.000	95.7
BERYLLIUM	MG/KG	1/4	4	1/4	1.100-1.100	1.10	0.860	0.950	0.6
CADMIUM	MG/KG	0/4	4	0/4			1.100	1.200	0.870
CALCIUM	MG/KG	4/4	4	4/4	18300.000-87200.000	54475.00	11.000	12.000	4340
CHROMIUM	MG/KG	4/4	4	2/4	12.500-24.300	17.40	11.000	12.000	15.5
COBALT	MG/KG	4/4	4	0/4	7.500-12.500	10.58	11.000	12.000	14.2
COPPER	MG/KG	4/4	4	3/4	14.000-23.200	18.80	11.000	12.000	14.1
CYANIDE	MG/KG	0/4	4	0/4			0.270	0.300	0.270
IRON	MG/KG	4/4	4	2/4	16300.000-33200.000	24350.00	11.000	12.000	21700
LEAD	MG/KG	4/4	4	1/4	11.400-48.600	21.48	11.000	12.000	26.4
MAGNESIUM	MG/KG	4/4	4	4/4	10600.000-22800.000	18200.00	11.000	12.000	2780
MANGANESE	MG/KG	4/4	4	1/4	564.000-1720.000	935.50	11.000	12.000	1350
MERCURY	MG/KG	0/4	4	0/4			0.050	0.060	0.3
MOLYBDENUM	MG/KG	0/4	4	0/4			3.700	4.000	NA
NICKEL	MG/KG	3/4	4	2/4	18.300-37.900	29.97	18.900	18.900	20.9
POTASSIUM	MG/KG	4/4	4	2/4	1180.000-1960.000	1495.00	11.000	12.000	1230
SELENIUM	MG/KG	0/1	1	0/1			0.230	0.470	0.72
SILICON	MG/KG	4/4	4	0/4	31.800-78.500	55.13	11.000	12.000	1800
SILVER	MG/KG	0/4	4	0/4			0.220	0.460	NA

05/24/94

AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	2/4	4	2/4	99.700-482.000	290.85	106.000	133.000	51.1
THALLIUM	MG/KG	3/4	4	0/4	0.270-0.300	0.28	0.230	0.230	0.58
VANADIUM	MG/KG	4/4	4	1/4	21.600-35.400	27.03	11.000	12.000	30.4
ZINC	MG/KG	4/4	4	2/4	53.900-78.800	66.08	11.000	12.000	59.6

000703

05/24/94

AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	3/3	3	1/3	6890.000-12700.000	9143.33	11.000	12.000	11900
ANTIMONY	MG/KG	0/2	2	0/2			2.400	2.500	NA
ARSENIC	MG/KG	3/3	3	0/3	4.800-7.800	5.87	11.000	12.000	8.20
BARIUM	MG/KG	3/3	3	1/3	71.200-102.000	83.27	11.000	12.000	95.7
BERYLLIUM	MG/KG	1/3	3	1/3	1.800-1.800	1.80	0.910	0.930	0.6
CADMIUM	MG/KG	1/3	3	1/3	1.100-1.100	1.10	1.100	1.200	0.870
CALCIUM	MG/KG	3/3	3	3/3	56800.000-88600.000	73000.00	11.000	12.000	4340
CHROMIUM	MG/KG	3/3	3	1/3	10.800-17.100	13.10	11.000	12.000	15.5
COBALT	MG/KG	2/3	3	0/3	6.600-11.700	9.15	7.500	7.500	14.2
COPPER	MG/KG	3/3	3	1/3	10.800-17.300	13.57	11.000	12.000	14.1
CYANIDE	MG/KG	0/3	3	0/3			0.270	0.290	0.270
IRON	MG/KG	3/3	3	1/3	14900.000-24000.000	18333.33	11.000	12.000	21700
LEAD	MG/KG	3/3	3	1/3	16.400-54.800	30.97	11.000	12.000	26.4
MAGNESIUM	MG/KG	3/3	3	3/3	12100.000-21400.000	17100.00	11.000	12.000	2780
MANGANESE	MG/KG	3/3	3	0/3	497.000-824.000	615.67	11.000	12.000	1350
MERCURY	MG/KG	0/3	3	0/3			0.050	0.060	0.3
MOLYBDENUM	MG/KG	0/3	3	0/3			3.700	3.900	NA
NICKEL	MG/KG	2/3	3	1/3	13.400-29.300	21.35	21.000	21.000	20.9
POTASSIUM	MG/KG	3/3	3	1/3	663.000-1340.000	978.33	11.000	12.000	1230
SELENIUM	MG/KG	0/1	1	0/1			0.230	2.300	0.72
SILICON	MG/KG	3/3	3	0/3	44.400-60.500	50.60	11.000	12.000	1800
SILVER	MG/KG	0/3	3	0/3			0.220	0.460	NA

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	2/3	3	2/3	119.000-322.000	220.50	114.000	114.000	51.1
THALLIUM	MG/KG	2/3	3	0/3	0.300-0.370	0.34	0.230	0.230	0.58
VANADIUM	MG/KG	3/3	3	0/3	21.500-26.600	24.07	11.000	12.000	30.4
ZINC	MG/KG	3/3	3	0/3	41.200-56.200	47.77	11.000	12.000	59.6

000705

05/24/94

AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	3/3	3	0/3	2380.000-13100.000	8860.00	10.000	12.000	16100
ANTIMONY	MG/KG	0/2	2	0/2			2.300	2.700	NA
ARSENIC	MG/KG	3/3	3	1/3	3.700-16.300	8.37	10.000	12.000	9.57
BARIUM	MG/KG	3/3	3	1/3	15.200-307.000	143.73	10.000	12.000	119
BERYLLIUM	MG/KG	2/3	3	2/3	1.200-1.500	1.35	0.990	0.990	0.620
CADMIUM	MG/KG	1/3	3	1/3	2.300-2.300	2.30	1.000	1.200	0.910
CALCIUM	MG/KG	3/3	3	0/3	9990.000-143000.000	66030.00	10.000	12.000	150000
CHROMIUM	MG/KG	3/3	3	0/3	5.200-17.100	12.50	10.000	12.000	20.7
COBALT	MG/KG	3/3	3	1/3	2.600-15.900	9.60	10.000	12.000	15.7
COPPER	MG/KG	3/3	3	1/3	5.000-21.300	15.37	10.000	12.000	20.0
CYANIDE	MG/KG	0/3	3	0/3			0.260	0.310	.17
IRON	MG/KG	3/3	3	0/3	6920.000-24700.000	18640.00	10.000	12.000	30700
LEAD	MG/KG	3/3	3	1/3	2.400-16.900	11.20	10.000	12.000	15.6
MAGNESIUM	MG/KG	3/3	3	1/3	5280.000-51100.000	25026.67	10.000	12.000	42600
MANGANESE	MG/KG	3/3	3	1/3	277.000-2050.000	1017.33	10.000	12.000	1300
MERCURY	MG/KG	0/3	3	0/3			0.050	0.060	0.29
MOLYBDENUM	MG/KG	0/3	3	0/3			3.500	4.200	2.7
NICKEL	MG/KG	1/3	3	1/3	34.800-34.800	34.80	10.300	23.200	34.3
POTASSIUM	MG/KG	3/3	3	0/3	379.000-1810.000	960.67	10.000	12.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.240	2.100	NA
SILICON	MG/KG	3/3	3	0/3	33.700-56.800	45.30	10.000	12.000	1590
SILVER	MG/KG	0/3	3	0/3			0.210	0.490	NA

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	1/3	3	0/3	280.000-280.000	280.00	116.000	194.000	285
THALLIUM	MG/KG	2/3	3	0/3	0.260-0.350	0.31	0.240	0.240	0.49
VANADIUM	MG/KG	3/3	3	0/3	11.900-31.300	23.67	10.000	12.000	37.8
ZINC	MG/KG	3/3	3	1/3	22.700-85.100	58.13	10.000	12.000	82.0

000707

05/24/94

AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	6/6	6	0/6	6970.000-15300.000	9975.00	12.000	13.000	16100
ANTIMONY	MG/KG	0/3	3	0/3			2.500	2.800	NA
ARSENIC	MG/KG	6/6	6	0/6	4.400-7.200	5.95	12.000	13.000	9.57
BARIUM	MG/KG	6/6	6	1/6	37.800-159.000	78.73	12.000	13.000	119
BERYLLIUM	MG/KG	1/6	6	1/6	1.700-1.700	1.70	0.950	1.000	0.620
CADMIUM	MG/KG	0/6	6	0/6			1.200	1.300	0.910
CALCIUM	MG/KG	6/6	6	0/6	8610.000-116000.000	79068.33	12.000	13.000	150000
CHROMIUM	MG/KG	6/6	6	0/6	10.800-20.400	14.45	12.000	13.000	20.7
COBALT	MG/KG	5/6	6	0/6	6.400-12.600	9.66	8.400	8.400	15.7
COPPER	MG/KG	6/6	6	1/6	11.700-20.200	16.30	12.000	13.000	20.0
CYANIDE	MG/KG	0/6	6	0/6			0.290	0.320	.17
IRON	MG/KG	6/6	6	0/6	16900.000-25900.000	20633.33	12.000	13.000	30700
LEAD	MG/KG	6/6	6	2/6	6.800-19.100	11.77	12.000	13.000	15.6
MAGNESIUM	MG/KG	6/6	6	0/6	5600.000-41000.000	24883.33	12.000	13.000	42600
MANGANESE	MG/KG	6/6	6	0/6	315.000-1120.000	626.33	12.000	13.000	1300
MERCURY	MG/KG	0/6	6	0/6			0.010	0.060	0.29
MOLYBDENUM	MG/KG	0/6	6	0/6			3.900	4.300	2.7
NICKEL	MG/KG	5/6	6	0/6	18.300-31.600	24.04	18.900	18.900	34.3
POTASSIUM	MG/KG	6/6	6	0/6	1040.000-1600.000	1308.33	12.000	13.000	1980
SELENIUM	MG/KG	0/3	3	0/3			0.230	2.500	NA
SILICON	MG/KG	6/6	6	0/6	17.600-79.900	51.50	12.000	13.000	1590
SILVER	MG/KG	0/6	6	0/6			0.240	0.480	NA

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000708

AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	3/6	6	1/6	136.000-302.000	240.33	113.000	170.000	285
THALLIUM	MG/KG	3/6	6	0/6	0.320-0.350	0.34	0.230	0.240	0.49
VANADIUM	MG/KG	6/6	6	0/6	15.900-27.700	23.98	12.000	13.000	37.8
ZINC	MG/KG	6/6	6	1/6	46.400-84.900	60.08	12.000	13.000	82.0

000709

05/24/94

AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			11.000	12.000	
ACETONE	UG/KG	0/4	4	0/4			11.000	12.000	
BENZENE	UG/KG	0/4	4	0/4			11.000	46.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
BROMOFORM	UG/KG	0/4	4	0/4			11.000	12.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROFORM	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
ETHYLBENZENE	UG/KG	1/4	4	1/4	2.000-2.000	2.00	11.000	12.000	

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
METHYLENE CHLORIDE	UG/KG	1/4	4	1/4	13.000-13.000	13.00	11.000	12.000	
STYRENE	UG/KG	0/4	4	0/4			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
TOLUENE	UG/KG	0/4	4	0/4			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	12.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
XYLENES, TOTAL	UG/KG	1/4	4	1/4	5.000-5.000	5.00	11.000	12.000	

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			11.000	12.000	
ACETONE	UG/KG	1/3	3	1/3	7.000-7.000	7.00	11.000	11.000	
BENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			11.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
METHYLENE CHLORIDE	UG/KG	1/3	3	1/3	13.000-13.000	13.00	11.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			11.000	12.000	

000713

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			10.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			10.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			10.000	12.000	
ACETONE	UG/KG	0/3	3	0/3			10.000	12.000	
BENZENE	UG/KG	0/3	3	0/3			10.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			10.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			10.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			10.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			10.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			10.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			10.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			10.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			10.000	12.000	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
METHYLENE CHLORIDE	UG/KG	1/3	3	1/3	14.000-14.000	14.00	10.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			10.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			10.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			10.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			10.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			10.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			10.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			10.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			10.000	12.000	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/6	6	0/6			12.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/6	6	0/6			12.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/6	6	0/6			12.000	13.000	
ACETONE	UG/KG	2/6	6	2/6	10.000-69.000	39.50	12.000	26.000	
BENZENE	UG/KG	0/6	6	0/6			12.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
BROMOFORM	UG/KG	0/6	6	0/6			12.000	13.000	
BROMOMETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
CARBON DISULFIDE	UG/KG	0/6	6	0/6			12.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/6	6	0/6			12.000	13.000	
CHLOROBENZENE	UG/KG	0/6	6	0/6			12.000	13.000	
CHLOROETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
CHLOROFORM	UG/KG	0/6	6	0/6			12.000	13.000	
CHLOROMETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			12.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/6	6	0/6			12.000	13.000	
ETHYLBENZENE	UG/KG	0/6	6	0/6			12.000	13.000	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
METHYLENE CHLORIDE	UG/KG	4/6	6	4/6	15.000-39.000	23.25	12.000	13.000	
STYRENE	UG/KG	0/6	6	0/6			12.000	13.000	
TETRACHLOROETHENE	UG/KG	0/6	6	0/6			12.000	13.000	
TOLUENE	UG/KG	0/6	6	0/6			12.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			12.000	13.000	
TRICHLOROETHENE	UG/KG	0/6	6	0/6			12.000	13.000	
VINYL ACETATE	UG/KG	0/6	6	0/6			12.000	13.000	
VINYL CHLORIDE	UG/KG	0/6	6	0/6			12.000	13.000	
XYLENES, TOTAL	UG/KG	0/6	6	0/6			12.000	13.000	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			6.000	6.000	
2-BUTANONE	UG/KG	0/2	2	0/2			12.000	12.000	
2-HEXANONE	UG/KG	1/2	2	1/2	2.000-2.000	2.00	12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			12.000	12.000	
ACETONE	UG/KG	0/2	2	0/2			12.000	18.000	
BENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOFORM	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	

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FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			6.000	23.000	
STYRENE	UG/KG	0/2	2	0/2			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
TOLUENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			6.000	6.000	

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FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			900.000	990.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			360.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			360.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			360.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			900.000	990.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			360.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			360.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			360.000	400.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			360.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			360.000	400.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			360.000	400.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			900.000	990.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			360.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	4	0/4			360.000	400.000	
3-NITROANILINE	NONE	0/4	4	0/4			900.000	990.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			900.000	990.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			360.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			360.000	400.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			360.000	400.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			360.000	400.000	
4-NITROANILINE	UG/KG	0/4	4	0/4			900.000	990.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			900.000	990.000	
ACENAPHTHENE	UG/KG	2/4	4	2/4	190.000-250.000	220.00	360.000	360.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			360.000	400.000	
ANTHRACENE	UG/KG	2/4	4	2/4	100.000-510.000	305.00	360.000	360.000	
BENZO(A)ANTHRACENE	UG/KG	2/4	4	2/4	100.000-1800.000	950.00	360.000	400.000	
BENZO(A)PYRENE	UG/KG	2/4	4	2/4	86.000-1600.000	843.00	360.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	3/4	4	3/4	37.000-2000.000	715.67	400.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/4	4	2/4	55.000-870.000	462.50	360.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	3/4	4	3/4	52.000-1500.000	547.67	400.000	400.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			900.000	990.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			360.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			360.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			360.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	3/4	4	3/4	66.000-120.000	95.33	360.000	360.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/4	4	0/4			360.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	2/4	4	2/4	170.000-250.000	210.00	360.000	360.000	
CARBAZOLE	UG/KG	4/4	4	4/4	40.000-2200.000	610.50	11.000	12.000	
CHRYSENE	UG/KG	1/4	4	1/4	48.000-48.000	48.00	360.000	400.000	
DI-N-BUTYL PHTHALATE									

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			360.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	1/4	4	1/4	400.000-400.000	400.00	360.000	400.000	
DIBENZOFURAN	UG/KG	2/4	4	2/4	120.000-240.000	180.00	360.000	360.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			360.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			360.000	400.000	
FLUORANTHENE	UG/KG	4/4	4	4/4	96.000-4500.000	1274.00	11.000	12.000	
FLUORENE	UG/KG	2/4	4	2/4	250.000-280.000	265.00	360.000	360.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			360.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			360.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			360.000	400.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			360.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/4	4	2/4	79.000-1300.000	689.50	360.000	400.000	
ISOPHORONE	UG/KG	0/4	4	0/4			360.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			360.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			360.000	400.000	
NAPHTHALENE	UG/KG	2/4	4	2/4	52.000-110.000	81.00	360.000	360.000	
NITROBENZENE	UG/KG	0/4	4	0/4			360.000	400.000	
P-CHLOROANILINE	UG/KG	0/4	4	0/4			360.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			900.000	990.000	
PHENANTHRENE	UG/KG	4/4	4	4/4	58.000-2800.000	879.50	11.000	12.000	
PHENOL	UG/KG	0/4	4	0/4			360.000	400.000	
PYRENE	UG/KG	4/4	4	4/4	80.000-3400.000	965.00	11.000	12.000	

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			910.000	960.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			360.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			910.000	960.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			360.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			360.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			360.000	390.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			360.000	390.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	390.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			910.000	960.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			360.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			360.000	390.000	
3-NITROANILINE	NONE	0/3	3	0/3			910.000	960.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			910.000	960.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			360.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	390.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			360.000	390.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	390.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			910.000	960.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			910.000	960.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			360.000	390.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			360.000	390.000	
ANTHRACENE	UG/KG	0/3	3	0/3			360.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	2/3	3	2/3	37.000-100.000	68.50	390.000	390.000	
BENZO(A)PYRENE	UG/KG	1/3	3	1/3	93.000-93.000	93.00	380.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	2/3	3	2/3	41.000-100.000	70.50	390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/3	3	1/3	47.000-47.000	47.00	380.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	2/3	3	2/3	48.000-79.000	63.50	390.000	390.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			910.000	960.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			360.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			360.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			360.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			360.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/3	3	2/3	60.000-66.000	63.00	360.000	360.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	390.000	
CARBAZOLE	UG/KG	0/3	3	0/3			360.000	390.000	
CHRYSENE	UG/KG	2/3	3	2/3	48.000-120.000	84.00	390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	390.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			360.000	390.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			360.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	390.000	
FLUORANTHENE	UG/KG	2/3	3	2/3	79.000-220.000	149.50	390.000	390.000	
FLUORENE	UG/KG	0/3	3	0/3			360.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			360.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			360.000	390.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			360.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/3	3	1/3	64.000-64.000	64.00	380.000	390.000	
ISOPHORONE	UG/KG	0/3	3	0/3			360.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			360.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			360.000	390.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			360.000	390.000	
NITROBENZENE	UG/KG	0/3	3	0/3			360.000	390.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			360.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			910.000	960.000	
PHENANTHRENE	UG/KG	2/3	3	2/3	42.000-110.000	76.00	390.000	390.000	
PHENOL	UG/KG	0/3	3	0/3			360.000	390.000	
PYRENE	UG/KG	2/3	3	2/3	110.000-180.000	145.00	390.000	390.000	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			340.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			340.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			340.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			340.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			860.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			340.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			340.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			340.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			860.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			340.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			340.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			340.000	410.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			340.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			340.000	410.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			340.000	410.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			860.000	1000.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			340.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			340.000	410.000	
3-NITROANILINE	NONE	0/3	3	0/3			860.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			860.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			340.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			340.000	410.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			340.000	410.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			340.000	410.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			860.000	1000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			860.000	1000.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			340.000	410.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			340.000	410.000	
ANTHRACENE	UG/KG	0/3	3	0/3			340.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	1/3	3	1/3	150.000-150.000	150.00	410.000	410.000	
BENZO(A)PYRENE	UG/KG	1/3	3	1/3	190.000-190.000	190.00	410.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	1/3	3	1/3	320.000-320.000	320.00	410.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/3	3	1/3	110.000-110.000	110.00	410.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	1/3	3	1/3	280.000-280.000	280.00	410.000	410.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			860.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			340.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			340.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			340.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			340.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/3	3	1/3	140.000-140.000	140.00	340.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			340.000	410.000	
CARBAZOLE	UG/KG	0/3	3	0/3			340.000	410.000	
CHRYSENE	UG/KG	1/3	3	1/3	200.000-200.000	200.00	410.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			340.000	410.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			340.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	1/3	3	1/3	42.000-42.000	42.00	410.000	410.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			340.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			340.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			340.000	410.000	
FLUORANTHENE	UG/KG	1/3	3	1/3	340.000-340.000	340.00	410.000	410.000	
FLUORENE	UG/KG	0/3	3	0/3			340.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			340.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			340.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			340.000	410.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			340.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/3	3	1/3	170.000-170.000	170.00	410.000	410.000	
ISOPHORONE	UG/KG	0/3	3	0/3			340.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			340.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			340.000	410.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			340.000	410.000	
NITROBENZENE	UG/KG	0/3	3	0/3			340.000	410.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			340.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			860.000	1000.000	
PHENANTHRENE	UG/KG	1/3	3	1/3	130.000-130.000	130.00	410.000	410.000	
PHENOL	UG/KG	0/2	2	0/2			340.000	410.000	
PYRENE	UG/KG	1/3	3	1/3	440.000-440.000	440.00	410.000	410.000	

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AREA: Administration Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/6	6	0/6			380.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/6	6	0/6			380.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/6	6	0/6			380.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/6	6	0/6			380.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/6	6	0/6			960.000	1100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/6	6	0/6			380.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/6	6	0/6			380.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/6	6	0/6			380.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/5	5	0/5			960.000	1100.000	
2,4-DINITROTOLUENE	UG/KG	0/5	5	0/5			380.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/6	6	0/6			380.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/6	6	0/6			380.000	420.000	
2-CHLOROPHENOL	UG/KG	0/6	6	0/6			380.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/6	6	0/6			380.000	420.000	
2-METHYLPHENOL	UG/KG	0/6	6	0/6			380.000	420.000	
2-NITROANILINE	UG/KG	0/6	6	0/6			960.000	1100.000	
2-NITROPHENOL	UG/KG	0/6	6	0/6			380.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/5	5	0/5			380.000	420.000	
3-NITROANILINE	NONE	0/5	5	0/5			960.000	1100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/5	5	0/5			960.000	1100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/5	5	0/5			380.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/6	6	0/6			380.000	420.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/5	5	0/5			380.000	420.000	
4-METHYLPHENOL	UG/KG	0/6	6	0/6			380.000	420.000	
4-NITROANILINE	UG/KG	0/5	5	0/5			960.000	1100.000	
4-NITROPHENOL	UG/KG	0/5	5	0/5			960.000	1100.000	
ACENAPHTHENE	UG/KG	0/5	5	0/5			380.000	420.000	
ACENAPHTHYLENE	UG/KG	0/6	6	0/6			380.000	420.000	
ANTHRACENE	UG/KG	0/5	5	0/5			380.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/5	5	0/5			380.000	420.000	
BENZO(A)PYRENE	UG/KG	0/5	5	0/5			380.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/5	5	0/5			380.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/5	5	0/5			380.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/5	5	0/5			380.000	420.000	
BENZOIC ACID	UG/KG	0/6	6	0/6			960.000	1100.000	
BENZYL ALCOHOL	UG/KG	0/6	6	0/6			380.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/6	6	0/6			380.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/6	6	0/6			380.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/6	6	0/6			380.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	5/5	5	5/5	52.000-160.000	95.40	12.000	13.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/5	5	0/5			380.000	420.000	
CARBAZOLE	UG/KG	0/5	5	0/5			380.000	420.000	
CHRYSENE	UG/KG	0/5	5	0/5			380.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/5	5	0/5			380.000	420.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/5	5	0/5			380.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/5	5	0/5			380.000	420.000	
DIBENZOFURAN	UG/KG	0/5	5	0/5			380.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/5	5	0/5			380.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/6	6	0/6			380.000	420.000	
FLUORANTHENE	UG/KG	2/5	5	2/5	54.000-62.000	58.00	380.000	420.000	
FLUORENE	UG/KG	0/5	5	0/5			380.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/5	5	0/5			380.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/6	6	0/6			380.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/6	6	0/6			380.000	420.000	
HEXACHLOROETHANE	UG/KG	0/6	6	0/6			380.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/5	5	0/5			380.000	420.000	
ISOPHORONE	UG/KG	0/6	6	0/6			380.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/6	6	0/6			380.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/5	5	0/5			380.000	420.000	
NAPHTHALENE	UG/KG	0/6	6	0/6			380.000	420.000	
NITROBENZENE	UG/KG	0/6	6	0/6			380.000	420.000	
P-CHLOROANILINE	UG/KG	0/6	6	0/6			380.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/5	5	0/5			960.000	1100.000	
PHENANTHRENE	UG/KG	2/5	5	2/5	46.000-66.000	56.00	380.000	420.000	
PHENOL	UG/KG	0/6	6	0/6			380.000	420.000	
PYRENE	UG/KG	2/5	5	2/5	48.000-51.000	49.50	380.000	420.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/4	4	0/4			3.500	3.900	
4,4'-DDE	UG/KG	2/4	4	2/4	11.000-38.000	24.50	3.800	3.900	
4,4'-DDT	UG/KG	2/4	4	2/4	4.300-15.000	9.65	3.800	3.900	
ALDRIN	UG/KG	0/4	4	0/4			1.800	2.000	
ALPHA-BHC	UG/KG	0/4	4	0/4			1.800	2.000	
ALPHA-CHLORDANE	UG/KG	2/4	4	2/4	2.100-2.800	2.45	2.000	2.000	
AROCLOR-1016	UG/KG	0/4	4	0/4			35.000	39.000	
AROCLOR-1221	UG/KG	0/4	4	0/4			72.000	80.000	
AROCLOR-1232	UG/KG	0/4	4	0/4			35.000	39.000	
AROCLOR-1242	UG/KG	0/4	4	0/4			35.000	39.000	
AROCLOR-1248	UG/KG	0/4	4	0/4			35.000	39.000	
AROCLOR-1254	UG/KG	1/4	4	1/4	54.000-54.000	54.00	35.000	39.000	
AROCLOR-1260	UG/KG	0/4	4	0/4			35.000	39.000	
BETA-BHC	UG/KG	0/4	4	0/4			1.800	2.000	
DELTA-BHC	UG/KG	0/4	4	0/4			1.800	2.000	
DIELDRIN	UG/KG	1/4	4	1/4	8.900-8.900	8.90	3.500	3.900	
ENDOSULFAN II	UG/KG	0/4	4	0/4			3.500	3.900	
ENDOSULFAN SULFATE	UG/KG	0/4	4	0/4			3.600	3.900	
ENDOSULFAN-I	UG/KG	0/4	4	0/4			1.800	2.000	
ENDRIN	UG/KG	0/4	4	0/4			3.500	3.900	
ENDRIN ALDEHYDE	UG/KG	0/4	4	0/4			3.500	3.900	
ENDRIN KETONE	UG/KG	0/4	4	0/4			3.500	3.900	

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/4	4	0/4			1.800	2.000	
GAMMA-CHLORDANE	UG/KG	0/4	4	0/4			1.800	2.000	
HEPTACHLOR	UG/KG	0/4	4	0/4			1.800	2.000	
HEPTACHLOR EPOXIDE	UG/KG	1/4	4	1/4	2.800-2.800	2.80	1.800	2.000	
METHOXYCHLOR	UG/KG	0/4	4	0/4			18.000	20.000	
TOXAPHENE	UG/KG	0/4	4	0/4			180.000	200.000	

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AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.600	3.800	
4,4'-DDE	UG/KG	0/3	3	0/3			3.600	3.800	
4,4'-DDT	UG/KG	0/3	3	0/3			3.600	3.800	
ALDRIN	UG/KG	0/3	3	0/3			1.900	2.000	
ALPHA-BHC	UG/KG	0/3	3	0/3			1.900	2.000	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			1.900	2.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			36.000	38.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			74.000	78.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			36.000	38.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			36.000	38.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			36.000	38.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			36.000	38.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			36.000	38.000	
BETA-BHC	UG/KG	0/3	3	0/3			1.900	2.000	
DELTA-BHC	UG/KG	0/3	3	0/3			1.900	2.000	
DIELDRIN	UG/KG	0/3	3	0/3			3.600	3.800	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.600	3.800	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.600	3.800	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			1.900	2.000	
ENDRIN	UG/KG	0/3	3	0/3			3.600	3.800	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.600	3.800	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.600	3.800	

AREA: Administration Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			1.900	2.000	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			1.900	2.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			1.900	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			1.900	2.000	
METHOXYCHLOR	UG/KG	0/3	3	0/3			19.000	20.000	
TOXAPHENE	UG/KG	0/3	3	0/3			190.000	200.000	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.400	4.100	
4,4'-DDE	UG/KG	0/3	3	0/3			3.400	4.100	
4,4'-DDT	UG/KG	0/3	3	0/3			3.400	4.100	
ALDRIN	UG/KG	0/3	3	0/3			1.800	2.100	
ALPHA-BHC	UG/KG	0/3	3	0/3			1.800	2.100	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	2.100	
AROCLOR-1016	UG/KG	0/3	3	0/3			34.000	41.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			69.000	83.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			34.000	41.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			34.000	41.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			34.000	41.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			34.000	41.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			34.000	41.000	
BETA-BHC	UG/KG	0/3	3	0/3			1.800	2.100	
DELTA-BHC	UG/KG	0/3	3	0/3			1.800	2.100	
DIELDRIN	UG/KG	0/3	3	0/3			3.400	4.100	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.400	4.100	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.400	4.100	
ENDOSULFAN-I	UG/KG	1/3	3	1/3	1.900-1.900	1.90	2.100	2.100	
ENDRIN	UG/KG	0/3	3	0/3			3.400	4.100	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.400	4.100	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.400	4.100	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			1.800	2.100	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	2.100	
HEPTACHLOR	UG/KG	0/3	3	0/3			1.800	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			1.800	2.100	
METHOXYCHLOR	UG/KG	0/3	3	0/3			18.000	21.000	
TOXAPHENE	UG/KG	0/3	3	0/3			180.000	210.000	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/6	6	0/6			3.800	4.200	
4,4'-DDE	UG/KG	0/6	6	0/6			3.800	4.200	
4,4'-DDT	UG/KG	0/6	6	0/6			3.800	4.200	
ALDRIN	UG/KG	0/6	6	0/6			2.000	2.200	
ALPHA-BHC	UG/KG	0/6	6	0/6			2.000	2.200	
ALPHA-CHLORDANE	UG/KG	0/6	6	0/6			2.000	2.200	
AROCLOR-1016	UG/KG	0/6	6	0/6			38.000	42.000	
AROCLOR-1221	UG/KG	0/6	6	0/6			77.000	85.000	
AROCLOR-1232	UG/KG	0/6	6	0/6			38.000	42.000	
AROCLOR-1242	UG/KG	0/6	6	0/6			38.000	42.000	
AROCLOR-1248	UG/KG	0/6	6	0/6			38.000	42.000	
AROCLOR-1254	UG/KG	0/6	6	0/6			38.000	42.000	
AROCLOR-1260	UG/KG	0/6	6	0/6			38.000	42.000	
BETA-BHC	UG/KG	0/6	6	0/6			2.000	2.200	
DELTA-BHC	UG/KG	0/6	6	0/6			2.000	2.200	
DIELDRIN	UG/KG	0/6	6	0/6			3.800	4.200	
ENDOSULFAN II	UG/KG	0/6	6	0/6			3.800	4.200	
ENDOSULFAN SULFATE	UG/KG	0/6	6	0/6			3.800	4.200	
ENDOSULFAN-I	UG/KG	0/6	6	0/6			2.000	2.200	
ENDRIN	UG/KG	0/6	6	0/6			3.800	4.200	
ENDRIN ALDEHYDE	UG/KG	0/6	6	0/6			3.800	4.200	
ENDRIN KETONE	UG/KG	0/6	6	0/6			3.800	4.200	

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AREA: Administration Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/6	6	0/6			2.000	2.200	
GAMMA-CHLORDANE	UG/KG	0/6	6	0/6			2.000	2.200	
HEPTACHLOR	UG/KG	0/6	6	0/6			2.000	2.200	
HEPTACHLOR EPOXIDE	UG/KG	0/6	6	0/6			2.000	2.200	
METHOXYCHLOR	UG/KG	0/6	6	0/6			20.000	22.000	
TOXAPHENE	UG/KG	0/6	6	0/6			200.000	220.000	

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D.2.11 ELECTRICAL SUBSTATION AREA

The electrical substation located in the southeast portion of the southeast quadrant of the former production area, as shown in Figure D.2-15, consists of the following facilities and equipment:

- Main electrical station (16A)
- Electrical substation (16B)
- Main electrical switch house (16D)
- Main electrical transformers (16E)
- Main electrical strainer house (26C)

The area is bounded on the west by the heavy equipment building, along the south by office trailer complexes, along the east by a surface water runoff ditch, and on the north by Plant 6 and the receiving/incoming materials inspection building. The electrical substation area provides electrical distribution at the FEMP; receiving 132,000-volt feedlines from the mainlines, transforming it to 13,200 volts, and delivering it to local substations throughout the facility.

PCB contamination in the soil is suspected in the electrical substation area as a result of the historical use of dielectric oils containing PCBs. In addition, radiological contamination is suspected because of airborne deposition from the former production area. Table D.2-11 summarizes parameters known to be present or used in the area.

Soil sampling in the electrical substation area was conducted in three phases; sampling locations are shown in Figure D.2-15. The first was a surface soil sampling program conducted in 1988 under the site-wide RI/FS program. One surface soil sample (Zone 2-115) was collected under this program.

The second investigation in the electrical substation area was performed under the PASA Work Plan. The PASA was to investigate the potential presence of PCB-contaminated soil in the substation area. Two wells (1170 and 1175) that are located north and southeast, respectively, of the main electrical station were sampled.

The third sampling program was initiated in October 1992 under the Operable Unit 5 RI/FS Work Plan Addenda to characterize any potential presence of PCB and radiological constituents in the electrical substation area. Samples of soil, after removal of overlying crushed stone, were collected at a depth of 0 to 0.5 feet from nine locations within the perimeter fence of the main electrical station. In addition, one soil sample was taken at a location where deposits from surface water runoff

apparently had occurred. The sampling locations are identified with the prefix ESA in Figure D.2-15.

Surface Soil

Table D.2-11 presents the distribution of radiological and chemical constituents in the surface soil of the electrical substation area. The maximum detection of each constituent is compared with background, if available, to determine whether the constituent is significantly elevated above background. When the background concentration is not available, any detection of these constituents is reported. Isoconcentration maps showing the lateral extent of the various constituents are presented in the Plates.

Within the surface soil of the electrical substation area, radiological and chemical contamination was detected in samples from the 0- to 0.5-foot-depth interval only, as indicated in Table D.2-11. No validated contamination was reported in the other intervals of the surface soil.

Uranium-238, uranium-234, and total uranium were present at levels greater than five times background. Activities of uranium-235/236 were reported at levels between two and five times background. In addition, thorium-230 was detected at one sampling location at a concentration slightly greater than background. No other radiological contaminants were detected at concentrations/activities higher than background.

Several inorganic analytes, including calcium, copper, lead, and magnesium, were detected at levels greater than five times background. Other inorganic constituents, including aluminum, barium, beryllium, chromium, manganese, sodium, and zinc were detected at levels varying from background to slightly above two times these values. Molybdenum and silver were detected, but no background levels were recorded for these constituents.

Six volatile organic compounds were detected in trace amounts in surface soil in the 0- to 0.5-foot-depth interval. No semivolatile organic compounds or pesticides were detected in this depth interval. Aroclor-1254, one of the PCB compounds, was detected in one surface soil sample at a relatively low concentration (200 μg/kg).

Subsurface Soil

The subsurface soil investigation in the electrical substation area was conducted under the PASA Work Plan. Subsurface soil samples were collected from two borings at depth intervals of 2.0, 5.0, 10.0, and 15.0 feet. These samples were analyzed for total uranium and total thorium. No validated results of total uranium and total thorium were reported in any of the subsurface soil depth intervals. No other analyses were conducted.

Conclusion

The analytical results of soil sampling in the electrical substation area indicated that all of the radiological and chemical contamination in this area is present only in the top 0.5 feet of surface soil and only at relatively low levels. One of the PCB compounds, Aroclor-1254, was detected in one sample at low concentrations, although PCB contamination was one of the potential concerns at the electrical substation area. Although no samples below 1.5 feet were analyzed for PCBs, the data from the 0.5 foot interval clearly shows that the PCBs are confined to the 0- to 0.5 foot depth.

The radiological contamination that was observed in this area is probably the result of airborne particulates from process plants in the former production area. The one PCB detection is most likely related to the PCB-bearing equipment in this area.

TABLE D.2-11
ELECTRICAL SUBSTATION
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	4	■	■	■	●	○	▒	○	○	○	○	-	-	-	-	-	-	○
0.5 - 1	0																	
1 - 1.5	0																	
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	0																	
3 - 5	0																	
5 - 10	0																	
10 - 15	0																	
15 - 20	0																	

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	69.6
0 - 0.5	9	●			●	●	-	■	●	○	■	○	○	■	■	●	○	X	○	○	○	○	X	▒	-	○	▒
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

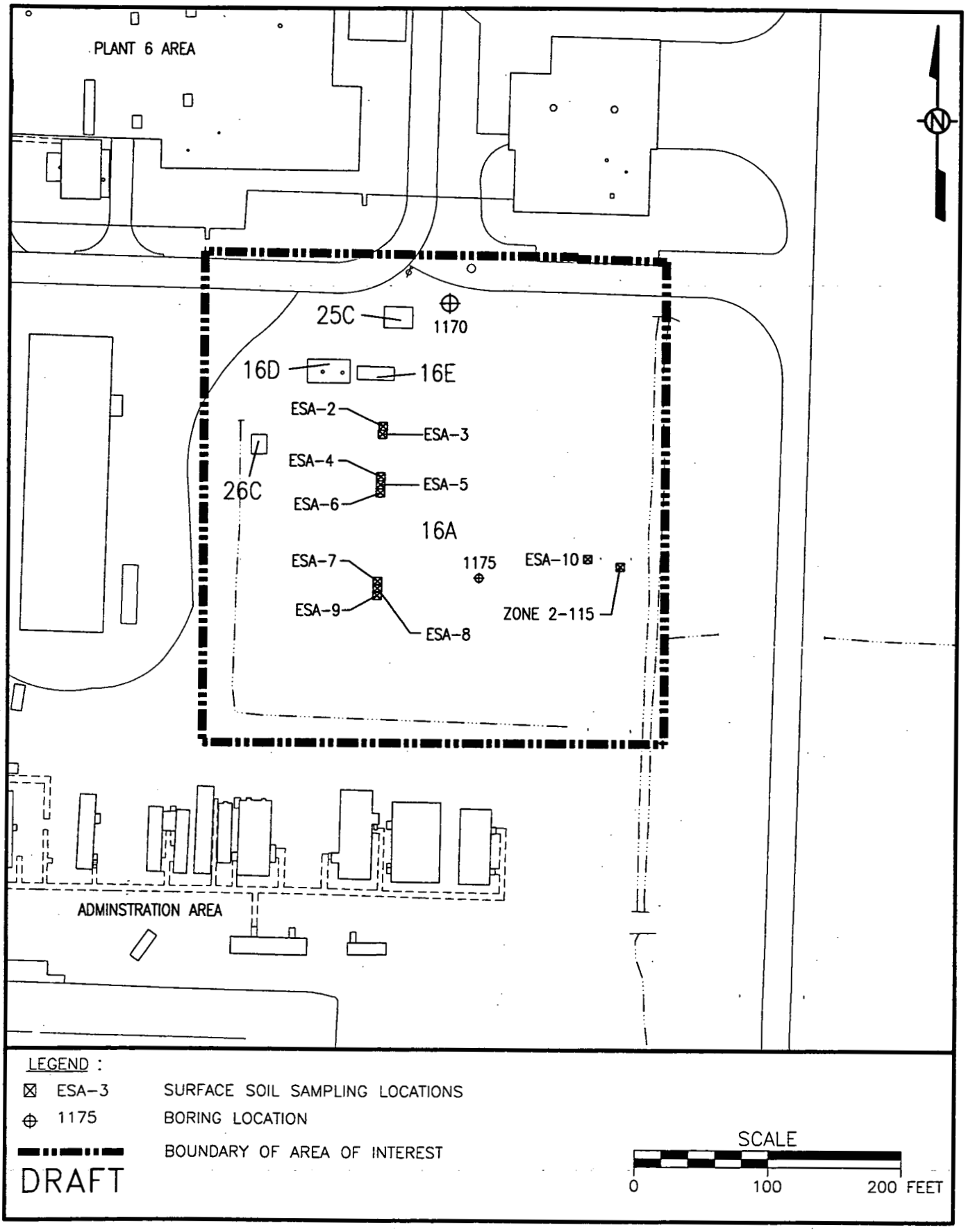
TABLE D.2-11
(Continued)

	VOLATILES (ug/kg)							PESTICIDES/PCBs (ug/kg)									
Depth Interval, Feet	Number of Samples	1,1,-Dichloroethane	1,1,1-Trichloroethane	1,1-Dichloroethene	2-Butanone	Tetrachloroethene	Toluene	Number of Samples	Aroclor-1254								
Surface Soil:																	
0 - 0.5	9	X	X	X	X	X	X	7	X								
0.5 - 1	0							0									
1 - 1.5	0							0									
Subsurface Soil:																	
1.5 - 3	0							0									
3 - 5	0							0									
5 - 10	0							0									
10 - 15	0							0									
15 - 20	0							0									

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.



STATE PLANAR COORDINATE SYSTEM 1927

ACAD: C:\4P94\13.SCR 05/26/94 RSG
ACAD: C:\4P94\94051002.DWG 6/11/94 JAK

FIGURE D.2-15. ELECTRICAL SUBSTATION AREA

Electrical Substation Area

Summary Soil Statistics

AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	4/4	1	4/4	3.600-6.890	5.60			1.24
URANIUM, TOTAL	MG/KG	6/6	1	6/6	14.000-28.300	20.07			3.73
URANIUM-234	PCI/G	4/4	1	4/4	3.570-6.900	5.52			1.24
THORIUM-230	PCI/G	4/4	4	1/4	1.570-1.990	1.77			1.97
RADIUM-226	PCI/G	4/4	1	0/4	0.830-1.240	0.99			1.42
URANIUM-235/236	PCI/G	1/4	1	1/4	0.600-0.600	0.60	0.600	0.600	0.156
THORIUM-232	PCI/G	4/4	4	0/4	0.521-1.066	0.75			1.36
THORIUM, TOTAL	MG/KG	4/6	3	0/6	4.750-9.710	6.83	23.000	23.000	12.4
RADIUM-228	PCI/G	4/4	1	0/4	0.520-0.990	0.75			1.25
THORIUM-228	PCI/G	4/4	4	0/4	0.519-1.020	0.75			1.43
NEPTUNIUM-237	PCI/G	0/5	5	0/5			0.202	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/4	1	0/4			0.500	2.000	0.424
TECHNETIUM-99	PCI/G	0/4	1	0/4			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	1	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	1/4	1	0/4	0.300-0.300	0.30	0.200	0.200	0.711

05/21/94

5699

AREA: Electrical Substation Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM, TOTAL	MG/KG	0/2	0	0/2			11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/2	0	0/2			23.000	23.000	11.1

000748

05/21/94

DRAFT

AREA: Electrical Substation Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 5 - 10 FEET									
URANIUM, TOTAL	MG/KG	0/2	0	0/2			11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/2	0	0/2			23.000	23.000	11.1

000749

05/21/94

5699

AREA: Electrical Substation Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	0/2	0	0/2			11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/2	0	0/2			23.000	23.000	11.1

000750

05/21/94

AREA: Electrical Substation Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	0/2	0	0/2			11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/2	0	0/2			23.000	23.000	11.1

05/21/94

AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	9/9	9	1/9	4220.000-13700.000	8235.56			11900
BARIUM	MG/KG	9/9	9	5/9	39.200-145.000	94.32			95.7
BERYLLIUM	MG/KG	5/9	9	2/9	0.380-0.800	0.53	0.340	0.520	0.6
CADMIUM	MG/KG	0/9	9	0/9			0.840	1.300	0.870
CALCIUM	MG/KG	9/9	9	9/9	26100.000-118000.000	80377.78			4340
CHROMIUM	MG/KG	9/9	9	3/9	6.900-20.700	13.33			15.5
COBALT	MG/KG	9/9	9	0/9	3.400-7.900	5.08			14.2
COPPER	MG/KG	9/9	9	7/9	12.400-184.000	55.88			14.1
CYANIDE	MG/KG	1/9	9	0/9	0.130-0.130	0.13	0.120	0.300	0.270
IRON	MG/KG	9/9	9	0/9	10200.000-21000.000	16455.56			21700
LEAD	MG/KG	9/9	9	2/9	5.100-543.000	71.92			26.4
MAGNESIUM	MG/KG	9/9	9	9/9	11300.000-37000.000	24300.00			2780
MANGANESE	MG/KG	9/9	9	2/9	293.000-1470.000	633.67			1350
MERCURY	MG/KG	1/9	9	0/9	0.170-0.170	0.17	0.110	0.130	0.3
MOLYBDENUM	MG/KG	7/9	9	7/9	3.800-6.900	5.83	4.500	5.200	NA
NICKEL	MG/KG	9/9	9	0/9	9.700-20.600	14.34			20.9
POTASSIUM	MG/KG	9/9	9	0/9	793.000-1140.000	989.44			1230
SELENIUM	MG/KG	2/9	9	0/9	0.410-0.420	0.42	0.340	0.470	0.72
SILICON	MG/KG	9/9	9	0/9	429.000-977.000	679.78			1800
SILVER	MG/KG	8/9	9	8/9	2.900-7.900	5.06	2.600	2.600	NA
SODIUM	MG/KG	9/9	9	9/9	64.900-155.000	128.99			51.1
THALLIUM	MG/KG	0/9	9	0/9			0.330	0.470	0.58

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000752

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AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
VANADIUM	MG/KG	9/9	9	0/9	11.200-29.000	20.38			30.4
ZINC	MG/KG	9/9	9	6/9	38.500-218.000	99.07			59.6

000752

5669

AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	4/9	9	4/9	1.000-100.000	39.75	12.000	15.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/9	9	0/9			11.000	15.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/9	9	0/9			11.000	15.000	
1,1-DICHLOROETHANE	UG/KG	3/9	9	3/9	9.000-16.000	11.33	11.000	15.000	
1,1-DICHLOROETHENE	UG/KG	3/9	9	3/9	2.000-6.000	3.33	11.000	15.000	
1,2-DICHLOROETHANE	UG/KG	0/9	9	0/9			11.000	15.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/9	9	0/9			11.000	15.000	
1,2-DICHLOROPROPANE	UG/KG	0/9	9	0/9			11.000	15.000	
2-BUTANONE	UG/KG	2/9	9	2/9	1.000-5.000	3.00	12.000	15.000	
2-HEXANONE	UG/KG	0/9	9	0/9			11.000	15.000	
4-METHYL-2-PENTANONE	UG/KG	0/9	9	0/9			11.000	15.000	
ACETONE	UG/KG	0/9	9	0/9			11.000	34.000	
BENZENE	UG/KG	0/9	9	0/9			11.000	15.000	
BROMODICHLOROMETHANE	UG/KG	0/9	9	0/9			11.000	15.000	
BROMOFORM	UG/KG	0/9	9	0/9			11.000	15.000	
BROMOMETHANE	UG/KG	0/9	9	0/9			11.000	15.000	
CARBON DISULFIDE	UG/KG	0/9	9	0/9			11.000	15.000	
CARBON TETRACHLORIDE	UG/KG	0/9	9	0/9			11.000	15.000	
CHLOROBENZENE	UG/KG	0/9	9	0/9			11.000	15.000	
CHLOROETHANE	UG/KG	0/9	9	0/9			11.000	15.000	
CHLOROFORM	UG/KG	0/9	9	0/9			11.000	15.000	
CHLOROMETHANE	UG/KG	0/9	9	0/9			11.000	15.000	

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000754

AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			11.000	15.000	
DIBROMOCHLOROMETHANE	UG/KG	0/9	9	0/9			11.000	15.000	
ETHYLBENZENE	UG/KG	0/9	9	0/9			11.000	15.000	
METHYLENE CHLORIDE	UG/KG	0/9	9	0/9			12.000	47.000	
STYRENE	UG/KG	0/9	9	0/9			11.000	15.000	
TETRACHLOROETHENE	UG/KG	1/9	9	1/9	1.000-1.000	1.00	11.000	15.000	
TOLUENE	UG/KG	1/9	9	1/9	1.000-1.000	1.00	11.000	15.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			11.000	15.000	
TRICHLOROETHENE	UG/KG	0/9	9	0/9			11.000	15.000	
VINYL ACETATE	UG/KG	0/9	9	0/9			11.000	15.000	
VINYL CHLORIDE	UG/KG	0/9	9	0/9			11.000	15.000	
XYLENES, TOTAL	UG/KG	0/9	9	0/9			11.000	15.000	

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AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			370.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			370.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			370.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			370.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			1800.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			370.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			370.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			370.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			1900.000	2000.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			370.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			370.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			370.000	410.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			370.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			370.000	410.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			370.000	410.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			1800.000	2000.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			370.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			740.000	830.000	
3-NITROANILINE	NONE	0/3	3	0/3			1800.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			1800.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			370.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			370.000	410.000	

AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			370.000	410.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			370.000	410.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			1800.000	2000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			1800.000	2000.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			370.000	410.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			370.000	410.000	
ANTHRACENE	UG/KG	0/3	3	0/3			370.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/3	3	0/3			370.000	410.000	
BENZO(A)PYRENE	UG/KG	0/3	3	0/3			370.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/3	3	0/3			370.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			370.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/3	3	0/3			370.000	410.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			1800.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			370.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			370.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			370.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			370.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/3	3	0/3			370.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			370.000	410.000	
CHRYSENE	UG/KG	0/3	3	0/3			370.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			370.000	410.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			370.000	410.000	

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000257

5699

AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			370.000	410.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			370.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			370.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			370.000	410.000	
FLUORANTHENE	UG/KG	0/3	3	0/3			370.000	410.000	
FLUORENE	UG/KG	0/3	3	0/3			370.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			370.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			370.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			370.000	410.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			370.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			370.000	410.000	
ISOPHORONE	UG/KG	0/3	3	0/3			370.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			370.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			370.000	410.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			370.000	410.000	
NITROBENZENE	UG/KG	0/3	3	0/3			370.000	410.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			370.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			1800.000	2000.000	
PHENANTHRENE	UG/KG	0/3	3	0/3			370.000	410.000	
PHENOL	UG/KG	0/2	2	0/2			370.000	410.000	
PYRENE	UG/KG	0/3	3	0/3			370.000	410.000	
TRIBUTYL PHOSPHATE	UG/KG	0/3	3	0/3			370.000	410.000	

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000458

AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/6	6	0/6			19.000	21.000	
4,4'-DDE	UG/KG	0/6	6	0/6			19.000	21.000	
4,4'-DDT	UG/KG	0/6	6	0/6			19.000	21.000	
ALDRIN	UG/KG	0/6	6	0/6			9.300	11.000	
ALPHA-BHC	UG/KG	0/6	6	0/6			9.300	11.000	
ALPHA-CHLORDANE	UG/KG	0/6	6	0/6			93.000	110.000	
AROCLOR-1016	UG/KG	0/9	9	0/9			93.000	120.000	
AROCLOR-1221	UG/KG	0/9	9	0/9			93.000	120.000	
AROCLOR-1232	UG/KG	0/9	9	0/9			93.000	120.000	
AROCLOR-1242	UG/KG	0/9	9	0/9			93.000	120.000	
AROCLOR-1248	UG/KG	0/9	9	0/9			93.000	120.000	
AROCLOR-1254	UG/KG	1/9	9	1/9	200.000-200.000	200.00	190.000	210.000	
AROCLOR-1260	UG/KG	0/9	9	0/9			190.000	250.000	
BETA-BHC	UG/KG	0/6	6	0/6			9.300	11.000	
DELTA-BHC	UG/KG	0/6	6	0/6			9.300	11.000	
DIELDRIN	UG/KG	0/6	6	0/6			19.000	21.000	
ENDOSULFAN II	UG/KG	0/6	6	0/6			19.000	21.000	
ENDOSULFAN SULFATE	UG/KG	0/6	6	0/6			19.000	21.000	
ENDOSULFAN-I	UG/KG	0/6	6	0/6			9.300	11.000	
ENDRIN	UG/KG	0/6	6	0/6			19.000	21.000	
ENDRIN KETONE	UG/KG	0/6	6	0/6			19.000	21.000	
GAMMA-BHC (LINDANE)	UG/KG	0/6	6	0/6			9.300	11.000	

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000755

AREA: Electrical Substation Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-CHLORDANE	UG/KG	0/6	6	0/6			93.000	110.000	
HEPTACHLOR	UG/KG	0/6	6	0/6			9.300	11.000	
HEPTACHLOR EPOXIDE	UG/KG	0/6	6	0/6			9.300	11.000	
METHOXYCHLOR	UG/KG	0/6	6	0/6			93.000	110.000	
TOXAPHENE	UG/KG	0/6	6	0/6			190.000	210.000	

05/21/94

D.2.12 MAINTENANCE BUILDING AREA

The maintenance building area covers an approximate 450- by 500-foot rectangle near the center of the former production area of the FEMP, as shown in Figure D.2-16. The maintenance building encompasses the southern half of the area, with several small buildings and pads located in the northern half. Underground storage tanks, UST Nos. 3 and 6, were removed from the area (see Figure D.2-16) in November and December 1990. A parts cleaner in the maintenance building was originally designated a hazardous waste management unit (HWMU), but was later reclassified as a solid waste management unit. Table D-1 summarizes parameters known to be present or used in the maintenance building area.

Sampling in the area has been performed in phases, beginning in 1987 with the original site-wide RI/FS program. The major sampling programs for this area were performed in 1989 and 1990. A program of two surface sample borings and one subsurface boring completed the investigations in 1993.

Surface Soil

Surface sampling in the maintenance building area was concentrated in the northwest quadrant of the area and the area just south of the southeast corner of the maintenance building. Surface sampling locations are shown in Figure D.2-16. Selected samples were tested, based on the requirements of the individual programs under which they were obtained. The test results from all the programs in the area were combined for this discussion. The results were compared to the 95th percentile background value (background) for each radionuclide and inorganic constituent and the detection limit for organics, PCBs, and pesticides. Table D.2-12 presents the distribution of constituents with respect to these comparison levels by depth interval. Isoconcentration maps showing the levels of the various constituents detected are presented in the Plates.

Total uranium and uranium isotopes were identified at levels exceeding five times background in the 0- to 0.5-foot and 0.5- to 1.0-foot depth intervals. The maximum concentration of total uranium was 330 mg/kg. Thorium-230 was detected at levels of at least twice background to a 1.0-foot depth. Thorium-230 was present at a maximum activity of 8.21 pCi/g in the 0.0- to 0.5-foot depth interval. Other thorium isotopes, strontium-90, and radium-228 were present above background in this interval. Technetium-99 and plutonium-239/240 were detected in the 0- to 0.5-foot and 0.5- to 1.0-foot intervals, respectively, but background levels were not recorded for these constituents.

Cadmium, calcium, magnesium, and sodium were detected at levels at least five times background throughout the surface sampling zone in the northwest quadrant of the area. Additionally, cyanide, lead, and zinc, at levels greater than five times background, were detected to a 1.0-foot depth. Barium, beryllium, chromium, and copper were detected at levels between two and five times background to a 1.0-foot depth; nickel was detected at this detection level to 1.5 feet. Silver was detected throughout the surface sampling zone, but no background level was recorded for this constituent. No testing was performed in the 1.0- to 1.5-foot interval in the area south of the maintenance building.

Various volatile organics were detected at intermittent depths within the surface sampling zone. Samples used in the analyses were recovered primarily from the 0.5- to 1.0-foot interval. Therefore, a higher percentage of detections occurred within this depth interval. Volatile organic detections were primarily limited to the northwest quadrant of the area.

Semivolatile organics were detected in as many as 60 percent of the samples tested in the 0- to 0.5-foot interval and in about 25 percent of the samples in the 0.5- to 1.0-foot interval. In addition, PCBs, specifically Aroclor-1254 and Aroclor-1260, were detected in the surface sampling zone. As with volatile organic detections, semivolatile and PCB detections were limited predominantly to samples from the northwest quadrant and from locations 1327 and 1601 in the area south of the maintenance building.

Subsurface Soil

In the maintenance building area, subsurface sampling locations typically coincide with the general location of surface samples, as shown in Figure D.2-16. Total uranium was found at greater than the 95th percentile background value (background) at all depth intervals, greater than twice this level at a 3.0- to 5.0-foot depth, and more than five times this level at a 1.5- to 3.0-foot depth. Total thorium exceeded twice background from 1.5 to 5.0 feet. All other radionuclides were detected at levels below background in subsurface soil at the two primary locations (northwest quadrant and southeast corner of the maintenance building) investigated.

Subsurface detections of most inorganics in the maintenance building area were typically at lower levels than for surface soil and were below background. Levels of cadmium were greater than five times background; cyanide and molybdenum were at least twice background; and beryllium, copper,

magnesium, nickel, and sodium were greater than the background to depths of at least 10 feet. From 10.0- to 20.0-foot depth, only two samples from the northwest quadrant were tested for the presence of inorganics. One sample in the 10.0- to 15.0-foot interval had a detection of barium greater than five times background. Silver was detected throughout the subsurface, but no background level was recorded for this constituent.

Subsurface detections of volatile and semivolatile organics and pesticides were generally limited to the northwest quadrant of the area. The following volatile organics, primarily solvents, were detected in 20 and 40 percent of the samples tested in the 1.5- to 3.0-foot and 3.0- to 5.0-foot intervals of the subsurface:

1,1,1-Trichloroethane	1,1-Dichloroethane
1,2-Dichloroethene	4-Methyl-2-pentanone
Carbon disulfide	Trichloroethene
Tetrachloroethene	Toluene

In the 3.0- to 5.0-foot interval, carbon disulfide was detected in about 60 percent of the samples. From 5.0 to 10 feet, carbon disulfide was detected in about 90 percent of the samples. The level of perched groundwater in the maintenance building area fluctuates from about 3 to 4 feet below the ground surface. At this level, the highest volatile organic concentrations are found. Below 10 feet, only two samples from the northwest quadrant were tested. Acetone and methylene chloride were detected in both samples; 1,1,1-trichloroethane was detected in one sample and carbon disulfide was detected in the other. Acetone, methylene chloride, and carbon disulfide are common laboratory contaminants.

Almost all of the semivolatile organics detected in the surface sampling zone in the maintenance building area were detected in the 1.5- to 3.0-foot interval of the subsurface. Only bis(2-ethylhexyl) phthalate and di-n-butyl phthalate were detected throughout the entire 20-foot depth interval. These two parameters were found at concentrations near their respective detection limits and are common laboratory contaminants.

Aroclor-1254 (a PCB) was detected in sample intervals from 1.5 to 10.0 feet in the northwest quadrant. One pesticide, alpha-BHC, was detected in only one sample at the 1.5- to 3.0-foot interval. However, the alpha-BHC was not detected in the surface zone.

Conclusions

Contamination present in the maintenance building area is primarily limited to the surface soil. Total uranium concentrations were detected at elevated values in the surface soil, diminishing in concentration below the 3.0- to 5.0-foot sample interval. The maximum concentration of total uranium was 330 mg/kg, a detection which occurred at the 0- to 0.5-foot depth interval. This maximum concentration was detected near the drum storage pad and is limited to the surface soil. As with total uranium, detections of all other radionuclides at highly elevated levels were restricted to the surface soil. Inorganics contamination is principally confined to the surface soil, as well. Organic contamination is likewise primarily limited to the upper 5 feet of soil in the maintenance building area. A very high concentration of total volatile organic compounds (92,860 μg/kg) is located in the northwest portion of the maintenance building, near the north pad drum storage area at 0 to 0.5 feet.

Surface soil surrounding the maintenance building contained elevated levels of inorganic and radionuclide constituents; their presence is likely attributable to air deposition. The volatile and semivolatile organics, PCBs, and pesticides are likely to have resulted from spills and leaks from drums stored on the pad north of the maintenance building. The organic contamination present on the south side of the maintenance building is most likely related to the handling of solvents associated with maintenance activities.

TABLE D.2-12
MAINTENANCE BUILDING
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	5				◉	○		●	●	●	●	-	-	-	●	X	-	○
0.5 - 1	2				◉	○		●	●	○	●	-	X	-	-	-	-	-
1 - 1.5	3	●	●	○	○	○	-	○	○	○	○							
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	2	○	■	○	○	○	-	○	○	-	○							
3 - 5	4		◉						○									
5 - 10	3	○	●	○	○	●	-	○	○	○	○							
10 - 15	2	○	●	○	○	○	-	○	○	○	○							
15 - 20	2	○	●	○	○	○	-	○	○	-	○							

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	61.1	0.58	30.4	59.6
0 - 0.5	7	○	-	●	◉	◉			◉	●	◉		●			○	◉	X	◉	●	-	-	○	X		○	○	
0.5 - 1	21	○	-	●	◉	◉			◉	○	◉		●			○	●	X	◉	●	◉			X		●	●	
1 - 1.5	3	○	-	○	○	●			●	○	●	-	○	○		○	-	X	◉	●	-	○	○	X		○	○	◉
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	23	○	-	○	●	●		●	●	○	●		○	●	●	○	-	◉	●	○	-	○	X	●	-	○	○
3 - 5	23	○		○	○	●		○	○	○	●	◉	○	○	●	○	○	◉	●	○	-		X	●	●	○	○
5 - 10	23	○		○	○	●		●	●	○	●	○	○	○	●	○	-	◉	●	●	-	○	X	●	-	○	○
10 - 15	2	○		○	■	○	-	●	○	○	○	-	○	●	○	○	-	-	○	○	-	○	X	○	-	○	○
15 - 20	1	○		○	○	○	-	○	○	○	○	-	○	○	○	○	-	-	○	○	-	○	X	○	-	○	○

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

◉ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-12
(Continued)

Depth Interval, Feet	Number of Samples	1,1,-Dichloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	1,2-Dichloroethene (total)	2-Butanone	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Dibromochloromethane	Ethyl benzene	Methylene chloride	Tetrachloroethene	Toluene	Trans-1,3-dichloropropene	Trichloroethene	Vinyl chloride	Zylenes, total
	VOLATILES (ug/kg)																										
Surface Soil:																											
0 - 0.5	7	-	X	-	-	-	-	-	-	-	X	X	-	X	-	X	-	X	-	-	X	X	X	-	X	-	-
0.5 - 1	20	X	X	-	X	-	-	X	-	-	X	X	-	X	-	-	-	X	-	-	-	X	X	-	X	-	-
1 - 1.5	3	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-	-	-	-	X	-	X	-	-	-	-
Subsurface Soil:																											
1.5 - 3	25	X	X	X	-	X	-	X	X	-	X	X	X	X	X	X	-	X	-	X	X	X	X	-	X	X	X
3 - 5	23	X	X	-	-	X	X	X	-	X	X	X	X	X	-	-	X	-	X	-	-	X	X	X	X	X	X
5 - 10	23	-	-	-	-	-	-	X	-	X	X	X	-	X	-	-	-	-	-	-	-	X	X	-	X	-	-
10 - 15	1	-	X	-	-	-	-	-	-	-	-	X	-	X	-	-	-	-	-	-	-	-	X	-	-	-	X
15 - 20	1	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	X	-	-	-	X

"Blank" - Compound was not analyzed.

X Detection where background level not recorded.

- Analyzed and not detected.

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TABLE D.2-12
(Continued)

Depth Interval, Feet	SEMIVOLATILES (ug/kg)																											PESTICIDES/PCBs (ug/kg)									
	Number of Samples	2-Methylnaphthalene	4-Chloro-3-methylphenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene	Di-n-butyl phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Fluoranthene	Fluorene	Hexachlorobutadiene	Ideno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Number of Samples	Alpha-BHC	Aroclor-1254	Aroclor-1260						
Surface Soil:																																					
0 - 0.5	7	X	-	X	-	X	X	X	X	X	X	X	X	-	X	-	X	X	-	X	X	-	X	X	X	-	X	6	-	X	-						
0.5 - 1	21	X	-	X	-	X	X	X	X	X	X	X	X	-	X	X	X	X	-	X	X	-	X	X	X	X	X	21	-	X	X						
1 - 1.5	3	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-						
Subsurface Soil:																																					
1.5 - 3	25	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	-	X	25	X	X	-						
3 - 5	23	-	X	-	-	-	X	-	-	-	-	X	X	-	-	X	-	-	X	X	-	-	-	-	X	X	X	23	-	X	-						
5 - 10	23	-	-	-	-	X	X	-	-	-	-	-	X	-	X	-	-	-	X	X	-	-	-	-	X	-	X	24	-	X	-						
10 - 15	1	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-						
15 - 20	1	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-						

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

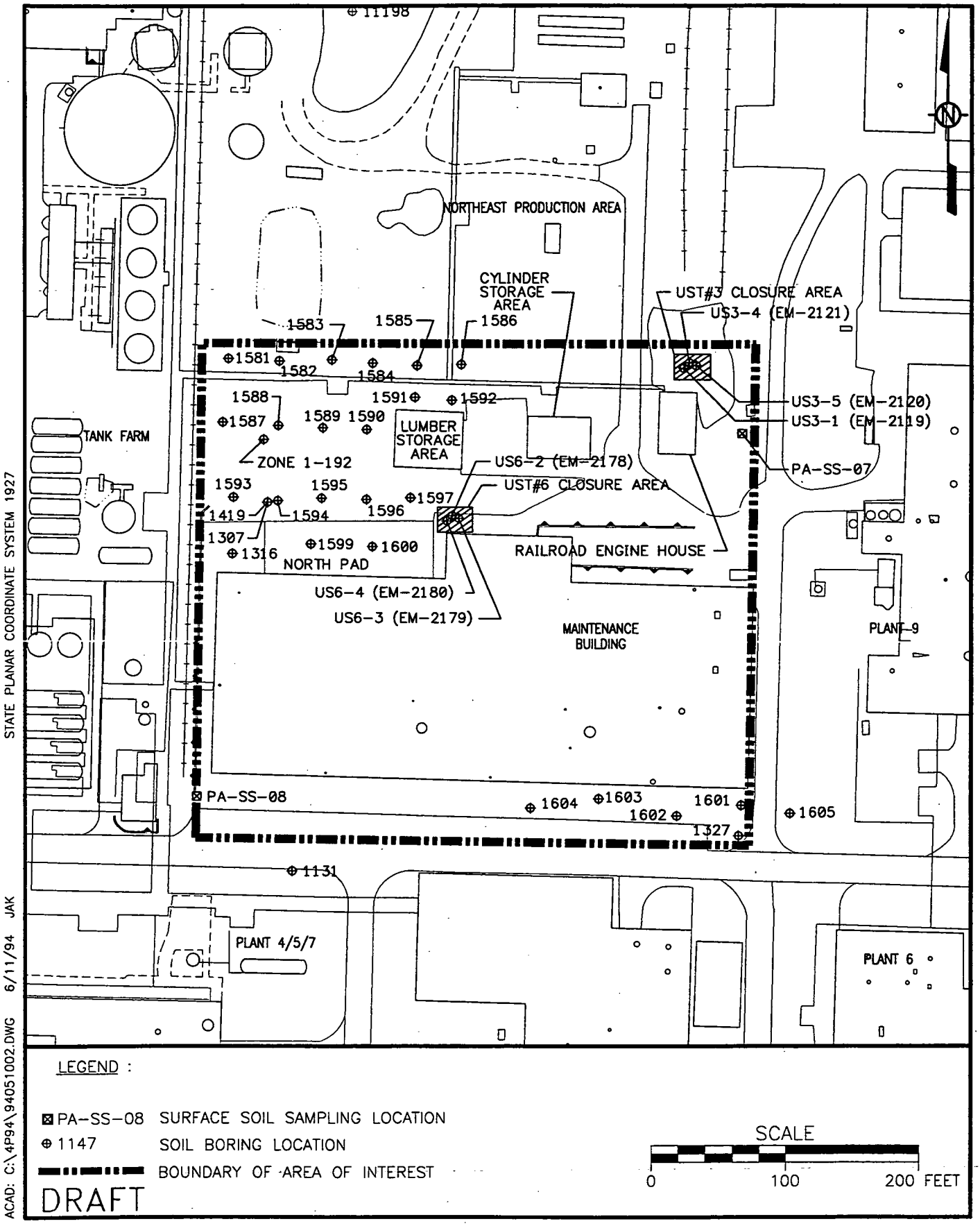

FIGURE D.2-16. MAINTENANCE BUILDING AREA

Maintenance Building Area

Summary Soil Statistics

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	6/6	6	6/6	1.400-118.000	34.95			1.24
URANIUM, TOTAL	MG/KG	7/7	7	7/7	4.300-330.000	117.63			3.73
URANIUM-234	PCI/G	6/6	6	6/6	1.300-117.000	33.22			1.24
THORIUM-230	PCI/G	6/6	6	3/6	0.500-8.210	2.82			1.97
RADIUM-226	PCI/G	5/7	7	0/7	0.800-1.200	0.94	0.250	0.250	1.42
URANIUM-235/236	PCI/G	4/6	6	4/6	0.200-8.600	3.88	0.100	0.100	0.156
THORIUM-232	PCI/G	6/6	6	3/6	0.500-2.600	1.48			1.36
THORIUM, TOTAL	MG/KG	6/6	2	3/6	4.560-23.712	13.43			12.4
RADIUM-228	PCI/G	4/7	7	2/7	1.000-1.800	1.38	0.500	0.500	1.25
THORIUM-228	PCI/G	5/6	6	1/6	0.500-2.190	1.09	0.100	0.100	1.43
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/4	4	1/4	1.110-1.110	1.11	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	2/2	2	2/2	1.600-2.200	1.90			NA
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.400	NA
CESIUM-137	PCI/G	3/4	4	0/4	0.490-0.600	0.56	0.200	0.200	0.711

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	2/2	2	2/2	20.900-25.800	23.35			1.24
URANIUM, TOTAL	MG/KG	2/2	2	2/2	53.000-70.100	61.55			3.73
URANIUM-234	PCI/G	2/2	2	2/2	21.200-26.200	23.70			1.24
THORIUM-230	PCI/G	1/1	1	1/1	4.840-4.840	4.84			1.97
RADIUM-226	PCI/G	2/2	2	0/2	0.620-0.800	0.71			1.42
URANIUM-235/236	PCI/G	2/2	2	2/2	1.200-2.470	1.84			0.156
THORIUM-232	PCI/G	1/1	1	1/1	1.750-1.750	1.75			1.36
THORIUM, TOTAL	MG/KG	1/1	1	1/1	15.800-15.800	15.80			12.4
RADIUM-228	PCI/G	2/2	2	0/2	0.600-0.950	0.78			1.25
THORIUM-228	PCI/G	1/1	1	1/1	1.740-1.740	1.74			1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/2	2	1/2	1.510-1.510	1.51	0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	0.711

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	2/2	2	1/2	0.900-1.300	1.10			1.24
URANIUM, TOTAL	MG/KG	3/3	3	2/3	3.100-4.380	3.93			3.73
URANIUM-234	PCI/G	2/2	2	0/2	0.900-1.000	0.95			1.24
THORIUM-230	PCI/G	3/3	3	0/3	0.600-0.900	0.76			1.97
RADIUM-226	PCI/G	2/2	2	0/2	0.700-1.300	1.00			1.42
URANIUM-235/236	PCI/G	0/2	2	0/2			0.100	0.100	0.156
THORIUM-232	PCI/G	2/3	3	0/3	0.400-0.700	0.55	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	2/3	1	0/3	3.648-6.384	5.02	2.860	2.860	12.4
RADIUM-228	PCI/G	1/2	2	0/2	0.600-0.600	0.60	0.500	0.500	1.25
THORIUM-228	PCI/G	2/3	3	0/3	0.500-0.500	0.50	0.600	0.600	1.43

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.600-0.600	0.60			1.12
URANIUM, TOTAL	MG/KG	3/4	3	1/4	2.030-136.600	46.91	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.500-0.500	0.50			1.04
THORIUM-230	PCI/G	1/2	2	0/2	0.800-0.800	0.80	0.600	0.600	1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.200-1.200	1.20			1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/2	2	0/2	0.600-0.600	0.60	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	2/4	2	0/4	3.700-5.472	4.59	4.570	23.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/2	2	0/2	0.500-0.500	0.50	0.600	0.600	1.38

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	3/4	3	3/4	10.300-11.800	10.93	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	2/4	3	0/4	4.520-5.570	5.05	3.110	23.000	11.1

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	2/2	2	0/2	0.500-0.600	0.55			1.12
URANIUM, TOTAL	MG/KG	5/5	5	3/5	2.100-7.310	4.49			3.69
URANIUM-234	PCI/G	2/2	2	0/2	0.400-0.600	0.50			1.04
THORIUM-230	PCI/G	3/3	3	0/3	0.600-1.360	0.99			1.91
RADIUM-226	PCI/G	2/2	2	1/2	0.700-1.500	1.10			1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.100	0.100	0.150
THORIUM-232	PCI/G	2/3	3	0/3	0.400-0.600	0.50	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	4/4	2	0/4	3.648-5.472	4.62			11.1
RADIUM-228	PCI/G	1/2	2	0/2	0.800-0.800	0.80	0.500	0.500	1.31
THORIUM-228	PCI/G	2/3	3	0/3	0.600-0.600	0.60	0.600	0.600	1.38

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.600-0.600	0.60			1.12
URANIUM, TOTAL	MG/KG	3/3	2	1/3	2.400-6.240	3.94			3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.600-0.600	0.60			1.04
THORIUM-230	PCI/G	2/2	2	0/2	0.500-0.753	0.63			1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.100-1.100	1.10			1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/2	2	0/2	0.500-0.500	0.50	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	5/5	4	0/5	3.360-6.960	4.66			11.1
RADIUM-228	PCI/G	1/1	1	0/1	0.600-0.600	0.60			1.31
THORIUM-228	PCI/G	1/2	2	0/2	0.500-0.500	0.50	0.600	0.600	1.38

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.800-0.800	0.80			1.12
URANIUM, TOTAL	MG/KG	3/3	3	1/3	2.300-5.360	3.59			3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.700-0.700	0.70			1.04
THORIUM-230	PCI/G	2/2	2	0/2	0.700-1.400	1.05			1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.000-1.000	1.00			1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.916-0.916	0.92			1.26
THORIUM, TOTAL	MG/KG	5/6	5	0/6	4.520-8.270	5.64	6.200	6.200	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	2/2	2	0/2	0.500-0.618	0.56			1.38

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	7/7	7	0/7	2230.000-7660.000	3858.57			11900
ANTIMONY	MG/KG	0/2	2	0/2			1.000	6.600	NA
ARSENIC	MG/KG	7/7	7	1/7	2.300-12.600	5.03			8.20
BARIUM	MG/KG	7/7	7	1/7	24.300-434.000	102.84			95.7
BERYLLIUM	MG/KG	4/7	7	3/7	0.590-1.700	1.12	0.320	0.880	0.6
CADMIUM	MG/KG	4/7	7	4/7	5.100-8.000	6.75	1.000	1.100	0.870
CALCIUM	MG/KG	7/7	7	7/7	91900.000-178000.000	143128.57			4340
CHROMIUM	MG/KG	7/7	7	3/7	6.100-67.500	28.96			15.5
COBALT	MG/KG	7/7	7	1/7	2.500-16.800	8.76			14.2
COPPER	MG/KG	7/7	7	4/7	8.300-65.200	27.37			14.1
CYANIDE	MG/KG	2/7	7	2/7	0.590-22.800	11.70	0.110	0.290	0.270
IRON	MG/KG	7/7	7	2/7	7690.000-26900.000	15042.86			21700
LEAD	MG/KG	7/7	7	4/7	9.400-334.000	101.91			26.4
MAGNESIUM	MG/KG	7/7	7	7/7	18600.000-50300.000	37800.00			2780
MANGANESE	MG/KG	6/6	6	0/6	250.000-552.000	417.67			1350
MERCURY	MG/KG	3/7	7	3/7	0.370-0.650	0.52	0.010	0.110	0.3
MOLYBDENUM	MG/KG	2/6	6	2/6	4.700-5.700	5.20	2.200	4.200	NA
NICKEL	MG/KG	7/7	7	4/7	6.100-72.200	36.70			20.9
POTASSIUM	MG/KG	7/7	7	2/7	434.000-1380.000	816.14			1230
SELENIUM	MG/KG	0/6	6	0/6			0.220	0.450	0.72
SILICON	MG/KG	2/3	3	0/3	240.000-580.000	410.00	104.000	104.000	1800
SILVER	MG/KG	2/6	6	2/6	2.900-4.400	3.65	0.440	2.200	NA

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	7/7	7	7/7	182.000-2070.000	490.14			51.1
THALLIUM	MG/KG	1/7	7	0/7	0.380-0.380	0.38	0.210	0.430	0.58
VANADIUM	MG/KG	7/7	7	0/7	9.100-29.500	18.31			30.4
ZINC	MG/KG	7/7	7	3/7	22.500-767.000	205.43			59.6

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	22/22	22	0/22	1830.000-11700.000	6112.27			11900
ANTIMONY	MG/KG	0/1	1	0/1			6.200	7.400	NA
ARSENIC	MG/KG	20/21	21	2/21	3.200-9.100	5.14	2.200	2.200	8.20
BARIUM	MG/KG	22/22	22	1/22	27.300-456.000	74.99			95.7
BERYLLIUM	MG/KG	22/22	22	21/22	0.570-1.700	0.99			0.6
CADMIUM	MG/KG	21/22	22	21/22	2.300-7.100	4.53	2.600	2.600	0.870
CALCIUM	MG/KG	22/22	22	22/22	19900.000-260000.000	119359.09			4340
CHROMIUM	MG/KG	20/21	21	15/21	5.500-53.000	20.99	2.100	2.100	15.5
COBALT	MG/KG	22/22	22	0/22	5.800-14.000	9.67			14.2
COPPER	MG/KG	22/22	22	20/22	11.600-46.200	20.31			14.1
CYANIDE	MG/KG	8/22	22	3/22	0.140-20.600	2.90	0.090	0.270	0.270
IRON	MG/KG	22/22	22	4/22	6430.000-40000.000	16636.82			21700
LEAD	MG/KG	22/22	22	5/22	6.400-165.000	28.70			26.4
MAGNESIUM	MG/KG	22/22	22	21/22	1620.000-55100.000	25810.91			2780
MANGANESE	MG/KG	21/21	21	0/21	94.600-591.000	445.55			1350
MERCURY	MG/KG	5/22	22	2/22	0.180-0.460	0.27	0.090	0.120	0.3
MOLYBDENUM	MG/KG	17/20	20	17/20	2.200-6.200	4.00	2.000	2.100	NA
NICKEL	MG/KG	21/21	21	17/21	16.500-70.500	28.43			20.9
POTASSIUM	MG/KG	21/22	22	3/22	255.000-1770.000	932.24	21.200	21.200	1230
SELENIUM	MG/KG	1/21	21	1/21	2.600-2.600	2.60	0.360	0.470	0.72
SILVER	MG/KG	15/21	21	15/21	3.000-5.900	4.68	2.000	2.400	NA
SODIUM	MG/KG	22/22	22	22/22	95.100-2360.000	298.85			51.1

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
THALLIUM	MG/KG	2/22	22	1/22	0.390-0.600	0.50	0.200	0.470	0.58
VANADIUM	MG/KG	22/22	22	1/22	8.400-30.500	19.76			30.4
ZINC	MG/KG	22/22	22	7/22	21.300-324.000	74.67			59.6

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	3/3	3	0/3	5470.000-7300.000	6533.33			11900
ANTIMONY	MG/KG	0/1	1	0/1			0.950	5.300	NA
ARSENIC	MG/KG	3/3	3	0/3	3.600-4.200	3.83			8.20
BARIUM	MG/KG	3/3	3	0/3	23.200-52.000	35.10			95.7
BERYLLIUM	MG/KG	2/3	3	2/3	1.100-1.100	1.10	0.420	0.420	0.6
CADMIUM	MG/KG	1/3	3	1/3	5.100-5.100	5.10	0.950	1.100	0.870
CALCIUM	MG/KG	3/3	3	3/3	126000.000-159000.000	142000.00			4340
CHROMIUM	MG/KG	3/3	3	1/3	9.700-21.200	13.83			15.5
COBALT	MG/KG	3/3	3	0/3	5.300-13.800	9.63			14.2
COPPER	MG/KG	3/3	3	1/3	10.200-16.400	13.30			14.1
CYANIDE	MG/KG	0/3	3	0/3			0.110	0.280	0.270
IRON	MG/KG	3/3	3	0/3	14500.000-18200.000	15933.33			21700
LEAD	MG/KG	4/4	3	0/4	7.700-8.850	8.16			26.4
MAGNESIUM	MG/KG	3/3	3	3/3	22100.000-35600.000	28666.67			2780
MANGANESE	MG/KG	3/3	3	0/3	363.000-619.000	489.33			1350
MERCURY	MG/KG	0/3	3	0/3			0.060	0.100	0.3
MOLYBDENUM	MG/KG	1/2	2	1/2	3.800-3.800	3.80	1.800	3.900	NA
NICKEL	MG/KG	3/3	3	1/3	12.400-49.300	25.53			20.9
POTASSIUM	MG/KG	3/3	3	1/3	1040.000-1700.000	1303.33			1230
SELENIUM	MG/KG	0/2	2	0/2			0.360	1.100	0.72
SILICON	MG/KG	1/2	2	0/2	566.000-566.000	566.00	136.000	136.000	1800
SILVER	MG/KG	1/3	3	1/3	2.700-2.700	2.70	0.460	1.800	NA

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	3/3	3	3/3	197.000-447.000	282.00			51.1
THALLIUM	MG/KG	1/3	3	0/3	0.340-0.340	0.34	0.230	0.360	0.58
VANADIUM	MG/KG	3/3	3	0/3	16.500-21.500	19.17			30.4
ZINC	MG/KG	3/3	3	1/3	32.200-228.000	97.93			59.6

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	25/25	25	0/25	1100.000-12200.000	6632.00			16100
ANTIMONY	MG/KG	0/1	1	0/1			0.900	29.900	NA
ARSENIC	MG/KG	24/24	24	0/24	2.000-8.200	4.31			9.57
BARIUM	MG/KG	25/25	25	1/25	16.000-132.000	52.52			119
BERYLLIUM	MG/KG	22/25	25	21/25	0.620-1.200	0.93	0.350	2.000	0.620
CADMIUM	MG/KG	23/25	25	23/25	2.400-7.000	4.15	0.900	2.500	0.910
CALCIUM	MG/KG	25/25	25	1/25	15200.000-207000.000	109492.00			150000
CHROMIUM	MG/KG	24/24	24	3/24	7.800-23.500	16.42			20.7
COBALT	MG/KG	24/25	25	0/25	3.700-15.000	9.58	10.000	10.000	15.7
COPPER	MG/KG	24/24	24	7/24	10.700-31.300	18.37	1.800	1.800	20.0
CYANIDE	MG/KG	5/25	24	5/25	0.270-9.800	3.93	0.040	0.280	.17
IRON	MG/KG	25/25	25	0/25	4000.000-26800.000	16313.60			30700
LEAD	MG/KG	25/25	24	1/25	2.900-19.700	9.05			15.6
MAGNESIUM	MG/KG	25/25	25	1/25	6350.000-43400.000	25306.80			42600
MANGANESE	MG/KG	25/25	25	0/25	253.000-903.000	474.12			1300
MERCURY	MG/KG	0/25	25	0/25			0.090	0.210	0.29
MOLYBDENUM	MG/KG	17/22	22	14/22	2.300-5.500	3.77	1.800	5.300	2.7
NICKEL	MG/KG	22/24	24	1/24	9.900-37.600	26.20	20.500	25.800	34.3
POTASSIUM	MG/KG	24/25	25	0/25	285.000-1700.000	955.71	21.200	21.200	1980
SELENIUM	MG/KG	0/23	23	0/23			0.310	0.460	NA
SILICON	MG/KG	1/1	1	0/1	447.000-447.000	447.00			1590
SILVER	MG/KG	22/25	25	22/25	2.300-25.300	5.30	1.800	1.900	NA

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	25/25	25	1/25	81.500-414.000	191.92			285
THALLIUM	MG/KG	0/25	25	0/25			0.180	0.460	0.49
VANADIUM	MG/KG	25/25	25	0/25	10.200-29.700	19.20			37.8
ZINC	MG/KG	25/25	25	0/25	16.700-57.900	38.51			82.0

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	23/23	23	0/23	1910.000-11700.000	6573.91			16100
ARSENIC	MG/KG	21/21	21	0/21	2.500-7.200	4.46			9.57
BARIUM	MG/KG	23/23	23	0/23	24.400-86.600	49.26			119
BERYLLIUM	MG/KG	23/23	23	22/23	0.500-1.200	0.85			0.620
CADMIUM	MG/KG	23/23	23	23/23	2.000-8.000	4.37			0.910
CALCIUM	MG/KG	23/23	23	0/23	16300.000-136000.000	108969.57			150000
CHROMIUM	MG/KG	22/22	22	0/22	11.500-20.300	15.79			20.7
COBALT	MG/KG	23/23	23	0/23	4.900-14.900	9.86			15.7
COPPER	MG/KG	23/23	23	4/23	11.700-20.800	18.13			20.0
CYANIDE	MG/KG	3/22	22	1/22	0.120-0.480	0.24	0.100	0.120	.17
IRON	MG/KG	23/23	23	0/23	6220.000-20700.000	16230.00			30700
LEAD	MG/KG	25/25	23	0/25	4.400-11.000	7.87			15.6
MAGNESIUM	MG/KG	23/23	23	1/23	8850.000-61800.000	26497.83			42600
MANGANESE	MG/KG	23/23	23	0/23	107.000-697.000	442.13			1300
MERCURY	MG/KG	1/23	23	0/23	0.090-0.090	0.09	0.090	0.220	0.29
MOLYBDENUM	MG/KG	18/19	19	15/19	2.700-5.700	3.77	4.900	4.900	2.7
NICKEL	MG/KG	21/22	22	1/22	20.900-35.300	26.96	22.900	22.900	34.3
POTASSIUM	MG/KG	23/23	23	0/23	304.000-1500.000	1088.17			1980
SELENIUM	MG/KG	0/23	23	0/23			0.400	0.470	NA
SILVER	MG/KG	23/23	23	23/23	2.500-6.300	4.71			NA
SODIUM	MG/KG	23/23	23	1/23	95.900-287.000	187.82			285
THALLIUM	MG/KG	1/23	23	1/23	0.500-0.500	0.50	0.045	0.470	0.49

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
VANADIUM	MG/KG	23/23	23	0/23	12.800-22.500	18.04			37.8
ZINC	MG/KG	23/23	23	0/23	19.500-59.400	38.84			82.0

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	24/24	24	0/24	2060.000-9040.000	5705.83			16100
ARSENIC	MG/KG	17/18	18	0/18	1.800-6.600	3.65	2.540	2.540	9.57
BARIUM	MG/KG	24/24	24	0/24	24.200-54.300	35.93			119
BERYLLIUM	MG/KG	22/24	24	18/24	0.470-1.200	0.76	0.380	2.200	0.620
CADMIUM	MG/KG	22/24	24	22/24	3.300-6.900	4.87	0.920	1.400	0.910
CALCIUM	MG/KG	24/24	24	2/24	100000.000-187000.000	122500.00			150000
CHROMIUM	MG/KG	23/23	23	1/23	9.500-30.200	15.09			20.7
COBALT	MG/KG	23/24	24	0/24	4.900-11.400	8.80	11.200	11.200	15.7
COPPER	MG/KG	24/24	24	3/24	12.100-26.200	18.38			20.0
CYANIDE	MG/KG	1/24	24	0/24	0.140-0.140	0.14	0.080	0.140	.17
IRON	MG/KG	24/24	24	0/24	6850.000-18300.000	14626.67			30700
LEAD	MG/KG	24/24	24	0/24	1.400-10.200	6.76			15.6
MAGNESIUM	MG/KG	24/24	24	2/24	21500.000-47100.000	30341.67			42600
MANGANESE	MG/KG	24/24	24	0/24	283.000-522.000	413.25			1300
MERCURY	MG/KG	0/24	24	0/24			0.090	0.210	0.29
MOLYBDENUM	MG/KG	17/21	19	17/21	2.800-6.500	3.77	2.300	11.200	2.7
NICKEL	MG/KG	22/23	23	1/23	11.800-39.400	25.15	33.000	33.000	34.3
POTASSIUM	MG/KG	24/24	24	1/24	316.000-1990.000	1090.75			1980
SELENIUM	MG/KG	0/24	24	0/24			0.410	0.490	NA
SILICON	MG/KG	2/2	2	0/2	394.000-680.000	537.00			1590
SILVER	MG/KG	22/24	24	22/24	3.200-25.000	5.76	1.800	2.200	NA
SODIUM	MG/KG	24/24	24	2/24	135.000-304.000	192.04			285

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
THALLIUM	MG/KG	0/24	24	0/24			0.410	0.490	0.49
VANADIUM	MG/KG	24/24	24	0/24	12.400-24.300	17.13			37.8
ZINC	MG/KG	24/24	24	0/24	20.100-44.300	35.60			82.0

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	5600.000-9260.000	7430.00			16100
ARSENIC	MG/KG	2/2	2	0/2	2.500-8.700	5.60			9.57
BARIUM	MG/KG	2/2	2	1/2	65.700-1200.000	632.85			119
BERYLLIUM	MG/KG	2/2	2	0/2	0.400-0.520	0.46			0.620
CADMIUM	MG/KG	0/2	2	0/2			0.820	1.000	0.910
CALCIUM	MG/KG	2/2	2	1/2	80800.000-221000.000	150900.00			150000
CHROMIUM	MG/KG	2/2	2	0/2	8.000-12.100	10.05			20.7
COBALT	MG/KG	2/2	2	0/2	4.800-7.900	6.35			15.7
COPPER	MG/KG	2/2	2	0/2	9.400-17.100	13.25			20.0
CYANIDE	MG/KG	0/2	2	0/2			0.110	0.110	.17
IRON	MG/KG	2/2	2	0/2	10900.000-18200.000	14550.00			30700
LEAD	MG/KG	3/3	2	1/3	5.980-22.000	11.59			15.6
MAGNESIUM	MG/KG	2/2	2	0/2	15500.000-24200.000	19850.00			42600
MANGANESE	MG/KG	2/2	2	0/2	288.000-659.000	473.50			1300
MERCURY	MG/KG	0/2	2	0/2			0.100	0.110	0.29
MOLYBDENUM	MG/KG	0/2	2	0/2			3.300	4.200	2.7
NICKEL	MG/KG	2/2	2	0/2	8.800-17.200	13.00			34.3
POTASSIUM	MG/KG	2/2	2	0/2	1040.000-1080.000	1060.00			1980
SELENIUM	MG/KG	0/2	2	0/2			0.440	2.200	NA
SILICON	MG/KG	2/2	2	0/2	437.000-565.000	501.00			1590
SILVER	MG/KG	2/2	2	2/2	1.800-4.200	3.00			NA
SODIUM	MG/KG	2/2	2	0/2	111.000-218.000	164.50			285

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
THALLIUM	MG/KG	0/2	2	0/2			0.430	0.440	0.49
VANADIUM	MG/KG	2/2	2	0/2	13.100-27.500	20.30			37.8
ZINC	MG/KG	2/2	2	0/2	26.700-47.000	36.85			82.0

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	6630.000-6630.000	6630.00			16100
ARSENIC	MG/KG	1/1	1	0/1	2.300-2.300	2.30			9.57
BARIUM	MG/KG	1/1	1	0/1	62.100-62.100	62.10			119
BERYLLIUM	MG/KG	1/1	1	0/1	0.330-0.330	0.33			0.620
CADMIUM	MG/KG	0/1	1	0/1			1.000	1.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	108000.000-108000.000	108000.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	9.700-9.700	9.70			20.7
COBALT	MG/KG	1/1	1	0/1	4.900-4.900	4.90			15.7
COPPER	MG/KG	1/1	1	0/1	12.600-12.600	12.60			20.0
CYANIDE	MG/KG	0/1	1	0/1			0.110	0.110	.17
IRON	MG/KG	1/1	1	0/1	13500.000-13500.000	13500.00			30700
LEAD	MG/KG	2/2	1	0/2	6.100-13.300	9.70			15.6
MAGNESIUM	MG/KG	1/1	1	0/1	34100.000-34100.000	34100.00			42600
MANGANESE	MG/KG	1/1	1	0/1	319.000-319.000	319.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.100	0.100	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.000	4.000	2.7
NICKEL	MG/KG	1/1	1	0/1	14.500-14.500	14.50			34.3
POTASSIUM	MG/KG	1/1	1	0/1	1560.000-1560.000	1560.00			1980
SELENIUM	MG/KG	0/1	1	0/1			0.390	0.390	NA
SILICON	MG/KG	1/1	1	0/1	715.000-715.000	715.00			1590
SILVER	MG/KG	1/1	1	1/1	2.400-2.400	2.40			NA
SODIUM	MG/KG	1/1	1	0/1	218.000-218.000	218.00			285

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.390	0.390	0.49
VANADIUM	MG/KG	1/1	1	0/1	17.900-17.900	17.90			37.8
ZINC	MG/KG	1/1	1	0/1	29.500-29.500	29.50			82.0

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/7	7	1/7	210.000-210.000	210.00	5.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/7	7	0/7			5.000	730.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/7	7	0/7			5.000	730.000	
1,1-DICHLOROETHANE	UG/KG	0/7	7	0/7			5.000	730.000	
1,1-DICHLOROETHENE	UG/KG	0/7	7	0/7			5.000	730.000	
1,2-DICHLOROETHANE	UG/KG	0/7	7	0/7			5.000	730.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/7	7	0/7			5.000	730.000	
1,2-DICHLOROPROPANE	UG/KG	0/7	7	0/7			5.000	730.000	
2-BUTANONE	UG/KG	0/6	6	0/6			10.000	1500.000	
2-HEXANONE	UG/KG	0/6	6	0/6			11.000	1500.000	
4-METHYL-2-PENTANONE	UG/KG	2/6	6	2/6	3.000-160.000	81.50	11.000	11.000	
ACETONE	UG/KG	1/7	7	1/7	19.000-19.000	19.00	10.000	2300.000	
BENZENE	UG/KG	0/7	7	0/7			5.000	730.000	
BROMODICHLOROMETHANE	UG/KG	0/7	7	0/7			5.000	730.000	
BROMOFORM	UG/KG	0/7	7	0/7			5.000	730.000	
BROMOMETHANE	UG/KG	0/7	7	0/7			11.000	1500.000	
CARBON DISULFIDE	UG/KG	1/7	7	1/7	4.000-4.000	4.00	5.000	730.000	
CARBON TETRACHLORIDE	UG/KG	0/7	7	0/7			5.000	730.000	
CHLOROBENZENE	UG/KG	1/7	7	1/7	1.000-1.000	1.00	5.000	730.000	
CHLOROETHANE	UG/KG	0/7	7	0/7			11.000	1500.000	
CHLOROFORM	UG/KG	1/7	7	1/7	14.000-14.000	14.00	5.000	730.000	
CHLOROMETHANE	UG/KG	0/7	7	0/7			11.000	1500.000	

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/7	7	0/7			5.000	730.000	
DIBROMOCHLOROMETHANE	UG/KG	0/7	7	0/7			5.000	730.000	
ETHYLBENZENE	UG/KG	0/7	7	0/7			5.000	730.000	
METHYLENE CHLORIDE	UG/KG	1/7	7	1/7	14.000-14.000	14.00	6.000	3000.000	
STYRENE	UG/KG	0/7	7	0/7			5.000	730.000	
TETRACHLOROETHENE	UG/KG	1/7	7	1/7	3300.000-3300.000	3300.00	5.000	11.000	
TOLUENE	UG/KG	3/7	7	3/7	2.000-190.000	65.33	5.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			5.000	730.000	
TRICHLOROETHENE	UG/KG	2/7	7	2/7	18.000-89000.000	44509.00	5.000	11.000	
VINYL ACETATE	UG/KG	0/7	7	0/7			11.000	1500.000	
VINYL CHLORIDE	UG/KG	0/7	7	0/7			11.000	1500.000	
XYLENES, TOTAL	UG/KG	0/7	7	0/7			5.000	730.000	

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	6/20	20	6/20	1.000-110.000	24.33	5.000	2900.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/20	20	0/20			5.000	2900.000	
1,1,2-TRICHLOROETHANE	UG/KG	1/20	20	1/20	14.000-14.000	14.00	5.000	2900.000	
1,1-DICHLOROETHANE	UG/KG	1/21	21	1/21	12.000-12.000	12.00	5.000	2900.000	
1,1-DICHLOROETHENE	UG/KG	0/21	21	0/21			5.000	2900.000	
1,2-DICHLOROETHANE	UG/KG	0/21	21	0/21			5.000	2900.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	2/21	21	2/21	110.000-340.000	225.00	5.000	2900.000	
1,2-DICHLOROPROPANE	UG/KG	0/20	20	0/20			5.000	2900.000	
2-BUTANONE	UG/KG	0/11	11	0/11			10.000	720.000	
2-HEXANONE	UG/KG	0/20	20	0/20			10.000	6000.000	
4-METHYL-2-PENTANONE	UG/KG	4/20	20	4/20	4.000-24.000	9.50	3.000	6000.000	
ACETONE	UG/KG	2/21	21	2/21	5.000-11.000	8.00	10.000	720.000	
BENZENE	UG/KG	0/20	20	0/20			5.000	350.000	
BROMODICHLOROMETHANE	UG/KG	0/20	20	0/20			5.000	2900.000	
BROMOFORM	UG/KG	0/20	20	0/20			5.000	2900.000	
BROMOMETHANE	UG/KG	0/21	21	0/21			10.000	6000.000	
CARBON DISULFIDE	UG/KG	6/21	21	6/21	2.000-11.000	5.17	5.000	2900.000	
CARBON TETRACHLORIDE	UG/KG	0/20	20	0/20			5.000	2900.000	
CHLOROBENZENE	UG/KG	0/20	20	0/20			5.000	2900.000	
CHLOROETHANE	UG/KG	0/21	21	0/21			10.000	6000.000	
CHLOROFORM	UG/KG	1/21	21	1/21	1.000-1.000	1.00	5.000	2900.000	
CHLOROMETHANE	UG/KG	0/21	21	0/21			10.000	6000.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/20	20	0/20			5.000	2900.000	
DIBROMOCHLOROMETHANE	UG/KG	0/20	20	0/20			5.000	2900.000	
ETHYLBENZENE	UG/KG	0/20	20	0/20			5.000	2900.000	
METHYLENE CHLORIDE	UG/KG	0/21	21	0/21			6.000	1200.000	
STYRENE	UG/KG	0/20	20	0/20			5.000	2900.000	
TETRACHLOROETHENE	UG/KG	2/20	20	2/20	480.000-2000.000	1240.00	5.000	9.000	
TOLUENE	UG/KG	1/20	20	1/20	3.000-3.000	3.00	5.000	350.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/16	16	0/16			5.000	2900.000	
TRICHLOROETHENE	UG/KG	7/20	20	7/20	3.000-56000.000	8774.57	5.000	6.000	
VINYL ACETATE	UG/KG	0/20	20	0/20			10.000	6000.000	
VINYL CHLORIDE	UG/KG	0/21	21	0/21			10.000	6000.000	
XYLENES, TOTAL	UG/KG	0/20	20	0/20			5.000	2900.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			5.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			5.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			5.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			5.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			5.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			5.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			5.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			5.000	11.000	
2-BUTANONE	UG/KG	0/2	2	0/2			11.000	11.000	
2-HEXANONE	UG/KG	0/2	2	0/2			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			11.000	11.000	
ACETONE	UG/KG	2/3	3	2/3	32.000-150.000	91.00	11.000	11.000	
BENZENE	UG/KG	0/4	3	0/4			5.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			5.000	11.000	
BROMOFORM	UG/KG	0/3	3	0/3			5.000	11.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	11.000	
CARBON DISULFIDE	UG/KG	1/3	3	1/3	2.000-2.000	2.00	5.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			5.000	11.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			5.000	11.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	11.000	
CHLOROFORM	UG/KG	0/3	3	0/3			5.000	11.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	11.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			5.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			5.000	11.000	
ETHYLBENZENE	UG/KG	0/4	3	0/4			5.000	11.000	
METHYLENE CHLORIDE	UG/KG	2/3	3	2/3	27.000-50.000	38.50	15.000	15.000	
STYRENE	UG/KG	0/3	3	0/3			5.000	11.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			5.000	11.000	
TOLUENE	UG/KG	1/4	3	1/4	2.000-2.000	2.00	5.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			5.000	11.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			5.000	11.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/4	3	0/4			5.000	11.000	

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FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	9/25	25	9/25	3.000-460.000	92.00	5.000	2800.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/25	25	1/25	5.000-5.000	5.00	5.000	2800.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/25	25	0/25			5.000	2800.000	
1,1-DICHLOROETHANE	UG/KG	4/25	25	4/25	2.000-37.000	11.25	5.000	2800.000	
1,1-DICHLOROETHENE	UG/KG	2/25	25	2/25	3.000-17.000	10.00	5.000	2800.000	
1,2-DICHLOROETHANE	UG/KG	0/25	25	0/25			5.000	2800.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	3/25	25	3/25	14.000-440.000	167.33	5.000	2800.000	
1,2-DICHLOROPROPANE	UG/KG	0/25	25	0/25			5.000	2800.000	
2-BUTANONE	UG/KG	1/15	15	1/15	5.000-5.000	5.00	10.000	5800.000	
2-HEXANONE	UG/KG	0/25	25	0/25			10.000	5800.000	
4-METHYL-2-PENTANONE	UG/KG	5/25	25	5/25	2.000-60.000	29.60	10.000	5800.000	
ACETONE	UG/KG	4/25	25	4/25	8.000-75.000	34.50	10.000	2600.000	
BENZENE	UG/KG	1/26	25	1/26	66.700-66.700	66.70	5.000	2800.000	
BROMODICHLOROMETHANE	UG/KG	0/25	25	0/25			5.000	2800.000	
BROMOFORM	UG/KG	0/25	25	0/25			5.000	2800.000	
BROMOMETHANE	UG/KG	0/25	25	0/25			10.000	5800.000	
CARBON DISULFIDE	UG/KG	7/25	25	7/25	1.000-11.000	3.71	5.000	2800.000	
CARBON TETRACHLORIDE	UG/KG	1/25	25	1/25	12.000-12.000	12.00	5.000	2800.000	
CHLOROBENZENE	UG/KG	1/25	25	1/25	1.000-1.000	1.00	5.000	2800.000	
CHLOROETHANE	UG/KG	0/25	25	0/25			10.000	5800.000	
CHLOROFORM	UG/KG	1/25	25	1/25	10.000-10.000	10.00	5.000	2800.000	
CHLOROMETHANE	UG/KG	0/25	25	0/25			10.000	5800.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/25	25	0/25			5.000	2800.000	
DIBROMOCHLOROMETHANE	UG/KG	0/25	25	0/25			5.000	2800.000	
ETHYLBENZENE	UG/KG	1/26	25	1/26	747.000-747.000	747.00	5.000	2800.000	
METHYLENE CHLORIDE	UG/KG	1/25	25	1/25	3.000-3.000	3.00	5.000	4600.000	
STYRENE	UG/KG	0/25	25	0/25			5.000	2800.000	
TETRACHLOROETHENE	UG/KG	7/25	25	7/25	2.000-1600.000	392.71	5.000	29.000	
TOLUENE	UG/KG	5/26	25	5/26	1.000-794.000	160.20	5.000	1300.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/21	21	0/21			5.000	2800.000	
TRICHLOROETHENE	UG/KG	6/25	25	6/25	1.000-120000.000	21674.33	5.000	29.000	
VINYL ACETATE	UG/KG	0/25	25	0/25			10.000	5800.000	
VINYL CHLORIDE	UG/KG	1/25	25	1/25	2.000-2.000	2.00	10.000	5800.000	
XYLENES, TOTAL	UG/KG	1/26	25	1/26	6180.000-6180.000	6180.00	5.000	2800.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	5/22	22	5/22	2.000-160.000	55.80	5.000	2700.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/23	23	0/23			5.000	1300000.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/23	23	0/23			5.000	1300000.000	
1,1-DICHLOROETHANE	UG/KG	5/23	23	5/23	1.000-310.000	91.60	5.000	2700.000	
1,1-DICHLOROETHENE	UG/KG	5/23	23	5/23	1.000-16.000	6.20	5.000	2700.000	
1,2-DICHLOROETHANE	UG/KG	1/23	23	1/23	2.000-2.000	2.00	5.000	2700.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	3/23	23	3/23	5.000-4300.000	1461.33	5.000	2600.000	
1,2-DICHLOROPROPANE	UG/KG	0/23	23	0/23			5.000	2700.000	
2-BUTANONE	UG/KG	0/11	11	0/11			10.000	2600.000	
2-HEXANONE	UG/KG	1/23	23	1/23	2600.000-2600.000	2600.00	1.000	5400.000	
4-METHYL-2-PENTANONE	UG/KG	9/23	23	9/23	2.000-2600.000	297.89	10.000	5600.000	
ACETONE	UG/KG	2/23	23	2/23	16.000-43.000	29.50	11.000	2700.000	
BENZENE	UG/KG	2/25	23	2/25	1.000-1300.000	650.50	5.000	2700.000	
BROMODICHLOROMETHANE	UG/KG	0/23	23	0/23			5.000	2700.000	
BROMOFORM	UG/KG	0/23	23	0/23			5.000	2700.000	
BROMOMETHANE	UG/KG	0/23	23	0/23			10.000	5600.000	
CARBON DISULFIDE	UG/KG	12/23	23	12/23	2.000-49.000	13.83	5.000	2700.000	
CARBON TETRACHLORIDE	UG/KG	0/23	23	0/23			5.000	2700.000	
CHLOROBENZENE	UG/KG	0/23	23	0/23			5.000	2700.000	
CHLOROETHANE	UG/KG	1/23	23	1/23	210.000-210.000	210.00	10.000	5600.000	
CHLOROFORM	UG/KG	0/23	23	0/23			5.000	2700.000	
CHLOROMETHANE	UG/KG	0/23	23	0/23			10.000	5600.000	

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AREA: Maintenance Building Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/23	23	0/23			5.000	2700.000	
DIBROMOCHLOROMETHANE	UG/KG	1/23	23	1/23	1300.000-1300.000	1300.00	5.000	2700.000	
ETHYLBENZENE	UG/KG	0/25	23	0/25			5.000	2700.000	
METHYLENE CHLORIDE	UG/KG	0/23	23	0/23			6.000	4200.000	
STYRENE	UG/KG	0/23	23	0/23			5.000	2700.000	
TETRACHLOROETHENE	UG/KG	3/23	23	3/23	2.000-1300.000	438.67	5.000	2600.000	
TOLUENE	UG/KG	6/25	23	6/25	1.000-116.000	25.33	5.000	1300.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	1/19	19	1/19	1300.000-1300.000	1300.00	5.000	2700.000	
TRICHLOROETHENE	UG/KG	3/23	23	3/23	4.000-150000.000	51168.00	5.000	2700.000	
VINYL ACETATE	UG/KG	0/23	23	0/23			10.000	5600.000	
VINYL CHLORIDE	UG/KG	1/23	23	1/23	110.000-110.000	110.00	10.000	5600.000	
XYLENES, TOTAL	UG/KG	1/25	23	1/25	820.000-820.000	820.00	5.000	2600.000	

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FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	2/23	23	2/23	4.000-13.000	8.50	5.000	26.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/23	23	0/23			5.000	26.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/23	23	0/23			5.000	26.000	
1,1-DICHLOROETHANE	UG/KG	0/23	23	0/23			5.000	26.000	
1,1-DICHLOROETHENE	UG/KG	0/23	23	0/23			5.000	26.000	
1,2-DICHLOROETHANE	UG/KG	0/23	23	0/23			5.000	26.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	2/23	23	2/23	2.000-130.000	66.00	5.000	26.000	
1,2-DICHLOROPROPANE	UG/KG	0/23	23	0/23			5.000	26.000	
2-BUTANONE	UG/KG	0/10	10	0/10			10.000	23.000	
2-HEXANONE	UG/KG	1/23	23	1/23	1.000-1.000	1.00	6.000	51.000	
4-METHYL-2-PENTANONE	UG/KG	5/23	23	5/23	1.000-33.000	11.00	11.000	51.000	
ACETONE	UG/KG	3/23	23	3/23	18.000-29.000	24.00	11.000	59.000	
BENZENE	UG/KG	0/23	23	0/23			5.000	26.000	
BROMODICHLOROMETHANE	UG/KG	0/23	23	0/23			5.000	26.000	
BROMOFORM	UG/KG	0/23	23	0/23			5.000	26.000	
BROMOMETHANE	UG/KG	0/23	23	0/23			10.000	51.000	
CARBON DISULFIDE	UG/KG	19/23	23	19/23	2.000-140.000	32.53	6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/23	23	0/23			5.000	26.000	
CHLOROBENZENE	UG/KG	0/23	23	0/23			5.000	26.000	
CHLOROETHANE	UG/KG	0/23	23	0/23			10.000	51.000	
CHLOROFORM	UG/KG	0/23	23	0/23			5.000	26.000	
CHLOROMETHANE	UG/KG	0/23	23	0/23			10.000	51.000	

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AREA: Maintenance Building Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/23	23	0/23			5.000	26.000	
DIBROMOCHLOROMETHANE	UG/KG	0/23	23	0/23			5.000	26.000	
ETHYLBENZENE	UG/KG	0/23	23	0/23			5.000	26.000	
METHYLENE CHLORIDE	UG/KG	0/23	23	0/23			6.000	38.000	
STYRENE	UG/KG	0/23	23	0/23			5.000	26.000	
TETRACHLOROETHENE	UG/KG	2/23	23	2/23	2.000-2.000	2.00	5.000	26.000	
TOLUENE	UG/KG	1/23	23	1/23	1.000-1.000	1.00	5.000	26.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/21	21	0/21			5.000	26.000	
TRICHLOROETHENE	UG/KG	2/23	23	2/23	3.000-210.000	106.50	5.000	14.000	
VINYL ACETATE	UG/KG	0/23	23	0/23			10.000	51.000	
VINYL CHLORIDE	UG/KG	0/23	23	0/23			10.000	51.000	
XYLENES, TOTAL	UG/KG	0/23	23	0/23			5.000	26.000	

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AREA: Maintenance Building Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	1/1	1	1/1	23.000-23.000	23.00			
BENZENE	UG/KG	0/2	1	0/2			5.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	1/1	1	1/1	2.000-2.000	2.00			
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/2	1	0/2			5.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			19.000	19.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
TOLUENE	UG/KG	1/2	1	1/2	5.480-5.480	5.48	11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	1/2	1	1/2	11.800-11.800	11.80	11.000	11.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/1	1	1/1	4.000-4.000	4.00			
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	1/1	1	1/1	21.000-21.000	21.00			
BENZENE	UG/KG	0/2	1	0/2			5.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/2	1	0/2			5.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			20.000	20.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
TOLUENE	UG/KG	1/2	1	1/2	38.900-38.900	38.90	11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	1/2	1	1/2	320.000-320.000	320.00	11.000	11.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/7	7	0/7			360.000	3600.000	
1,2-DICHLOROBENZENE	UG/KG	0/7	7	0/7			360.000	3600.000	
1,3-DICHLOROBENZENE	UG/KG	0/7	7	0/7			360.000	3600.000	
1,4-DICHLOROBENZENE	UG/KG	0/7	7	0/7			360.000	3600.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/7	7	0/7			870.000	17000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	
2,4-DICHLOROPHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	
2,4-DIMETHYLPHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	
2,4-DINITROPHENOL	UG/KG	0/7	7	0/7			870.000	17000.000	
2,4-DINITROTOLUENE	UG/KG	0/7	7	0/7			360.000	3600.000	
2,6-DINITROTOLUENE	UG/KG	0/7	7	0/7			360.000	3600.000	
2-CHLORONAPHTHALENE	UG/KG	0/7	7	0/7			360.000	3600.000	
2-CHLOROPHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	
2-METHYLNAPHTHALENE	UG/KG	2/7	7	2/7	320.000-760.000	540.00	360.000	1400.000	
2-METHYLPHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	
2-NITROANILINE	UG/KG	0/7	7	0/7			870.000	17000.000	
2-NITROPHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/7	7	0/7			360.000	7200.000	
3-NITROANILINE	NONE	0/6	6	0/6			870.000	17000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/7	7	0/7			870.000	17000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/7	7	0/7			360.000	3600.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/7	7	0/7			360.000	3600.000	
4-METHYLPHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	
4-NITROANILINE	UG/KG	0/7	7	0/7			870.000	17000.000	
4-NITROPHENOL	UG/KG	0/7	7	0/7			870.000	17000.000	
ACENAPHTHENE	UG/KG	1/7	7	1/7	4800.000-4800.000	4800.00	360.000	2000.000	
ACENAPHTHYLENE	UG/KG	0/7	7	0/7			360.000	3600.000	
ANTHRACENE	UG/KG	2/7	7	2/7	330.000-6200.000	3265.00	360.000	2000.000	
BENZO(A)ANTHRACENE	UG/KG	3/7	7	3/7	660.000-19000.000	7220.00	360.000	370.000	
BENZO(A)PYRENE	UG/KG	4/7	7	4/7	81.000-24000.000	6755.25	360.000	370.000	
BENZO(B)FLUORANTHENE	UG/KG	4/7	7	4/7	95.000-39000.000	10558.75	360.000	370.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/7	7	2/7	1900.000-12000.000	6950.00	360.000	2000.000	
BENZO(K)FLUORANTHENE	UG/KG	3/7	7	3/7	120.000-2600.000	1170.00	360.000	3600.000	
BENZOIC ACID	UG/KG	1/7	7	1/7	250.000-250.000	250.00	910.000	17000.000	
BENZYL ALCOHOL	UG/KG	0/7	7	0/7			360.000	3600.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/7	7	0/7			360.000	3600.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/7	7	0/7			360.000	3600.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/7	7	0/7			360.000	3600.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/7	7	2/7	650.000-780.000	715.00	360.000	3600.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/7	7	0/7			360.000	3600.000	
CARBAZOLE	UG/KG	0/3	3	0/3			360.000	370.000	
CHRYSENE	UG/KG	3/7	7	3/7	900.000-18000.000	6933.33	360.000	370.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/7	7	0/7			360.000	3600.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/7	7	0/7			360.000	3600.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/7	7	2/7	610.000-6900.000	3755.00	360.000	2000.000	
DIBENZOFURAN	UG/KG	1/7	7	1/7	2000.000-2000.000	2000.00	360.000	2000.000	
DIETHYL PHTHALATE	UG/KG	0/7	7	0/7			360.000	3600.000	
DIMETHYL PHTHALATE	UG/KG	0/7	7	0/7			360.000	3600.000	
FLUORANTHENE	UG/KG	4/7	7	4/7	120.000-33000.000	9680.00	360.000	370.000	
FLUORENE	UG/KG	1/7	7	1/7	3300.000-3300.000	3300.00	360.000	2000.000	
HEXACHLOROBENZENE	UG/KG	0/7	7	0/7			360.000	3600.000	
HEXACHLOROBUTADIENE	UG/KG	0/7	7	0/7			360.000	3600.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/7	7	0/7			360.000	3600.000	
HEXACHLOROETHANE	UG/KG	0/7	7	0/7			360.000	3600.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/7	7	2/7	1700.000-13000.000	7350.00	360.000	2000.000	
ISOPHORONE	UG/KG	0/7	7	0/7			360.000	3600.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/7	7	0/7			360.000	3600.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/7	7	0/7			360.000	3600.000	
NAPHTHALENE	UG/KG	1/7	7	1/7	1300.000-1300.000	1300.00	360.000	2000.000	
NITROBENZENE	UG/KG	0/7	7	0/7			360.000	3600.000	
P-CHLOROANILINE	UG/KG	0/7	7	0/7			360.000	3600.000	
PENTACHLOROPHENOL	UG/KG	0/7	7	0/7			870.000	17000.000	
PHENANTHRENE	UG/KG	4/7	7	4/7	80.000-22000.000	6245.00	360.000	370.000	
PHENOL	UG/KG	0/7	7	0/7			360.000	3600.000	
PYRENE	UG/KG	4/7	7	4/7	130.000-22000.000	6982.50	360.000	370.000	

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
TRIBUTYL PHOSPHATE	UG/KG	0/1	1	0/1			1400.000	1400.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	1700.000	
1,2-DICHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	1700.000	
1,3-DICHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	1700.000	
1,4-DICHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	1700.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/22	22	0/22			1700.000	8200.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/22	22	0/22			350.000	1700.000	
2,4-DICHLOROPHENOL	UG/KG	0/22	22	0/22			350.000	1700.000	
2,4-DIMETHYLPHENOL	UG/KG	0/22	22	0/22			350.000	1700.000	
2,4-DINITROPHENOL	UG/KG	0/22	22	0/22			1700.000	8200.000	
2,4-DINITROTOLUENE	UG/KG	0/22	22	0/22			350.000	1700.000	
2,6-DINITROTOLUENE	UG/KG	0/22	22	0/22			350.000	1700.000	
2-CHLORONAPHTHALENE	UG/KG	0/22	22	0/22			350.000	1700.000	
2-CHLOROPHENOL	UG/KG	0/22	22	0/22			350.000	1700.000	
2-METHYLNAPHTHALENE	UG/KG	1/22	22	1/22	510.000-510.000	510.00	350.000	1700.000	
2-METHYLPHENOL	UG/KG	0/22	22	0/22			350.000	1700.000	
2-NITROANILINE	UG/KG	0/22	22	0/22			1700.000	8200.000	
2-NITROPHENOL	UG/KG	0/22	22	0/22			350.000	1700.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/22	22	0/22			690.000	3400.000	
3-NITROANILINE	NONE	0/21	21	0/21			1700.000	8200.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/22	22	0/22			1700.000	8200.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/22	22	0/22			350.000	1700.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/22	22	0/22			350.000	1700.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/22	22	0/22			350.000	1700.000	
4-METHYLPHENOL	UG/KG	0/22	22	0/22			350.000	1700.000	
4-NITROANILINE	UG/KG	0/20	20	0/20			1700.000	8200.000	
4-NITROPHENOL	UG/KG	0/22	22	0/22			1700.000	8200.000	
ACENAPHTHENE	UG/KG	2/22	22	2/22	71.000-570.000	320.50	350.000	750.000	
ACENAPHTHYLENE	UG/KG	0/22	22	0/22			350.000	1700.000	
ANTHRACENE	UG/KG	3/22	22	3/22	73.000-880.000	351.00	350.000	750.000	
BENZO(A)ANTHRACENE	UG/KG	5/22	22	5/22	110.000-2900.000	762.00	350.000	750.000	
BENZO(A)PYRENE	UG/KG	4/22	22	4/22	66.000-3700.000	1083.75	350.000	750.000	
BENZO(B)FLUORANTHENE	UG/KG	4/22	22	4/22	290.000-4200.000	1320.00	350.000	750.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/22	22	2/22	360.000-1500.000	930.00	350.000	750.000	
BENZO(K)FLUORANTHENE	UG/KG	3/22	22	3/22	110.000-3100.000	1266.67	350.000	750.000	
BENZOIC ACID	UG/KG	1/22	22	1/22	170.000-170.000	170.00	1700.000	8200.000	
BENZYL ALCOHOL	UG/KG	0/22	22	0/22			350.000	1700.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/22	22	0/22			350.000	1700.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/22	22	0/22			350.000	1700.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/12	12	0/12			350.000	1700.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	5/22	22	5/22	41.000-110.000	69.40	350.000	1700.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/22	22	0/22			350.000	1700.000	
CHRYSENE	UG/KG	5/22	22	5/22	150.000-3000.000	822.00	350.000	750.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/22	22	2/22	46.000-49.000	47.50	350.000	1700.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/22	22	0/22			350.000	1700.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	1/22	22	1/22	690.000-690.000	690.00	350.000	750.000	
DIBENZOFURAN	UG/KG	2/22	22	2/22	140.000-210.000	175.00	350.000	750.000	
DIETHYL PHTHALATE	UG/KG	0/22	22	0/22			350.000	1700.000	
DIMETHYL PHTHALATE	UG/KG	0/22	22	0/22			350.000	1700.000	
FLUORANTHENE	UG/KG	9/22	22	9/22	39.000-5900.000	849.67	350.000	750.000	
FLUORENE	UG/KG	1/22	22	1/22	380.000-380.000	380.00	350.000	750.000	
HEXACHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	1700.000	
HEXACHLOROBUTADIENE	UG/KG	0/22	22	0/22			350.000	1700.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/22	22	0/22			350.000	1700.000	
HEXACHLOROETHANE	UG/KG	0/22	22	0/22			350.000	1700.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/22	22	2/22	330.000-1500.000	915.00	350.000	750.000	
ISOPHORONE	UG/KG	0/22	22	0/22			350.000	1700.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/18	18	0/18			350.000	1700.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/22	22	0/22			350.000	1700.000	
NAPHTHALENE	UG/KG	1/22	22	1/22	160.000-160.000	160.00	350.000	1700.000	
NITROBENZENE	UG/KG	0/18	18	0/18			350.000	1700.000	
P-CHLOROANILINE	UG/KG	0/22	22	0/22			350.000	1700.000	
PENTACHLOROPHENOL	UG/KG	0/22	22	0/22			1700.000	8200.000	
PHENANTHRENE	UG/KG	6/22	22	6/22	37.000-3700.000	844.17	350.000	750.000	
PHENOL	UG/KG	1/22	22	1/22	200.000-200.000	200.00	350.000	750.000	
PYRENE	UG/KG	10/22	22	10/22	41.000-4300.000	612.50	350.000	750.000	
TRIBUTYL PHOSPHATE	UG/KG	0/1	1	0/1			750.000	750.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			870.000	1800.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			360.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			870.000	1800.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			360.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			360.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			360.000	380.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			360.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			360.000	380.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	380.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			870.000	1800.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			360.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			360.000	730.000	
3-NITROANILINE	NONE	0/3	3	0/3			870.000	1800.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			870.000	1800.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			360.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	380.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			360.000	380.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			360.000	380.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			870.000	1800.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			870.000	1800.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			360.000	380.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			360.000	380.000	
ANTHRACENE	UG/KG	0/3	3	0/3			360.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/3	3	0/3			360.000	380.000	
BENZO(A)PYRENE	UG/KG	0/3	3	0/3			360.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/3	3	0/3			360.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			360.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/3	3	0/3			360.000	380.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			950.000	1800.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			360.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			360.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			360.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			360.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/3	3	1/3	980.000-980.000	980.00	360.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	380.000	
CARBAZOLE	UG/KG	0/2	2	0/2			360.000	380.000	
CHRYSENE	UG/KG	0/3	3	0/3			360.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	380.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			360.000	380.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			360.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			360.000	380.000	
FLUORANTHENE	UG/KG	0/3	3	0/3			360.000	380.000	
FLUORENE	UG/KG	0/3	3	0/3			360.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			360.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			360.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			360.000	380.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			360.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			360.000	380.000	
ISOPHORONE	UG/KG	0/3	3	0/3			360.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			360.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			360.000	380.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			360.000	380.000	
NITROBENZENE	UG/KG	0/3	3	0/3			360.000	380.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			360.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			870.000	1800.000	
PHENANTHRENE	UG/KG	0/3	3	0/3			360.000	380.000	
PHENOL	UG/KG	0/3	3	0/3			360.000	380.000	
PYRENE	UG/KG	0/3	3	0/3			360.000	380.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/25	25	0/25			330.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/25	25	0/25			330.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/25	25	0/25			330.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/25	25	0/25			330.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/25	25	0/25			820.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/25	25	0/25			330.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/25	25	0/25			330.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/25	25	0/25			330.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/25	25	0/25			820.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/25	25	0/25			330.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/25	25	0/25			330.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/25	25	0/25			330.000	400.000	
2-CHLOROPHENOL	UG/KG	0/25	25	0/25			330.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/25	25	0/25			330.000	400.000	
2-METHYLPHENOL	UG/KG	0/25	25	0/25			330.000	400.000	
2-NITROANILINE	UG/KG	0/25	25	0/25			820.000	1900.000	
2-NITROPHENOL	UG/KG	0/25	25	0/25			330.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/25	25	0/25			340.000	800.000	
3-NITROANILINE	NONE	0/25	25	0/25			820.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/25	25	0/25			820.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/25	25	0/25			330.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/25	25	0/25			330.000	400.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/25	25	0/25			330.000	400.000	
4-METHYLPHENOL	UG/KG	0/25	25	0/25			330.000	400.000	
4-NITROANILINE	UG/KG	0/22	22	0/22			820.000	1900.000	
4-NITROPHENOL	UG/KG	0/25	25	0/25			820.000	1900.000	
ACENAPHTHENE	UG/KG	0/25	25	0/25			330.000	400.000	
ACENAPHTHYLENE	UG/KG	1/25	25	1/25	780.000-780.000	780.00	330.000	400.000	
ANTHRACENE	UG/KG	2/25	25	2/25	130.000-1400.000	765.00	330.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	2/25	25	2/25	430.000-5100.000	2765.00	330.000	400.000	
BENZO(A)PYRENE	UG/KG	2/25	25	2/25	220.000-3400.000	1810.00	330.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	1/25	25	1/25	6000.000-6000.000	6000.00	330.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/25	25	1/25	2200.000-2200.000	2200.00	330.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	1/25	25	1/25	250.000-250.000	250.00	330.000	400.000	
BENZOIC ACID	UG/KG	1/25	25	1/25	150.000-150.000	150.00	1600.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/25	25	0/25			330.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/25	25	0/25			330.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/25	25	0/25			330.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/15	15	0/15			330.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	7/25	25	7/25	38.000-2800.000	528.29	330.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	1/25	25	1/25	46.000-46.000	46.00	330.000	400.000	
CARBAZOLE	UG/KG	0/1	1	0/1			340.000	340.000	
CHRYSENE	UG/KG	2/25	25	2/25	440.000-5000.000	2720.00	330.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/25	25	1/25	71.000-71.000	71.00	330.000	400.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/25	25	0/25			330.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	1/25	25	1/25	1100.000-1100.000	1100.00	330.000	400.000	
DIBENZOFURAN	UG/KG	1/25	25	1/25	120.000-120.000	120.00	330.000	400.000	
DIETHYL PHTHALATE	UG/KG	1/25	25	1/25	240.000-240.000	240.00	330.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/25	25	0/25			330.000	400.000	
FLUORANTHENE	UG/KG	2/25	25	2/25	880.000-11000.000	5940.00	330.000	400.000	
FLUORENE	UG/KG	1/25	25	1/25	370.000-370.000	370.00	330.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/25	25	0/25			330.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	1/25	25	1/25	350.000-350.000	350.00	330.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/25	25	0/25			330.000	400.000	
HEXACHLOROETHANE	UG/KG	0/25	25	0/25			330.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/25	25	2/25	130.000-2200.000	1165.00	330.000	400.000	
ISOPHORONE	UG/KG	0/25	25	0/25			330.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/23	23	0/23			330.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/25	25	0/25			330.000	400.000	
NAPHTHALENE	UG/KG	0/25	25	0/25			330.000	400.000	
NITROBENZENE	UG/KG	0/22	22	0/22			330.000	400.000	
P-CHLOROANILINE	UG/KG	0/25	25	0/25			330.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/25	25	0/25			820.000	1900.000	
PHENANTHRENE	UG/KG	2/25	25	2/25	550.000-5900.000	3225.00	330.000	400.000	
PHENOL	UG/KG	0/25	25	0/25			330.000	400.000	
PYRENE	UG/KG	2/25	25	2/25	580.000-9200.000	4890.00	330.000	400.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/23	23	0/23			340.000	1900.000	
1,2-DICHLOROBENZENE	UG/KG	0/23	23	0/23			340.000	1900.000	
1,3-DICHLOROBENZENE	UG/KG	0/23	23	0/23			340.000	1900.000	
1,4-DICHLOROBENZENE	UG/KG	0/23	23	0/23			340.000	1900.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/23	23	0/23			1600.000	9100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/23	23	0/23			340.000	1900.000	
2,4-DICHLOROPHENOL	UG/KG	0/23	23	0/23			340.000	1900.000	
2,4-DIMETHYLPHENOL	UG/KG	0/23	23	0/23			340.000	1900.000	
2,4-DINITROPHENOL	UG/KG	0/23	23	0/23			340.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/23	23	0/23			1600.000	9100.000	
2,6-DINITROTOLUENE	UG/KG	0/23	23	0/23			340.000	1900.000	
2-CHLORONAPHTHALENE	UG/KG	0/23	23	0/23			340.000	1900.000	
2-CHLOROPHENOL	UG/KG	0/23	23	0/23			340.000	1900.000	
2-METHYLNAPHTHALENE	UG/KG	0/23	23	0/23			340.000	1900.000	
2-METHYLPHENOL	UG/KG	0/23	23	0/23			340.000	1900.000	
2-NITROANILINE	UG/KG	0/23	23	0/23			340.000	1900.000	
2-NITROPHENOL	UG/KG	0/23	23	0/23			1600.000	9100.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/23	23	0/23			340.000	1900.000	
3-NITROANILINE	NONE	0/23	23	0/23			680.000	3700.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/23	23	0/23			1600.000	9100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/23	23	0/23			1600.000	9100.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	2/23	23	2/23	43.000-52.000	47.50	340.000	1900.000	

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/23	23	0/23			340.000	1900.000	
4-METHYLPHENOL	UG/KG	0/23	23	0/23			340.000	1900.000	
4-NITROANILINE	UG/KG	0/21	21	0/21			1600.000	9100.000	
4-NITROPHENOL	UG/KG	0/23	23	0/23			1600.000	9100.000	
ACENAPHTHENE	UG/KG	0/23	23	0/23			340.000	1900.000	
ACENAPHTHYLENE	UG/KG	0/23	23	0/23			340.000	1900.000	
ANTHRACENE	UG/KG	0/23	23	0/23			340.000	1900.000	
BENZO(A)ANTHRACENE	UG/KG	1/23	23	1/23	50.000-50.000	50.00	340.000	1900.000	
BENZO(A)PYRENE	UG/KG	0/23	23	0/23			340.000	1900.000	
BENZO(B)FLUORANTHENE	UG/KG	0/23	23	0/23			340.000	1900.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/23	23	0/23			340.000	1900.000	
BENZO(K)FLUORANTHENE	UG/KG	0/23	23	0/23			340.000	1900.000	
BENZOIC ACID	UG/KG	1/23	23	1/23	200.000-200.000	200.00	1600.000	9100.000	
BENZYL ALCOHOL	UG/KG	0/23	23	0/23			340.000	1900.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/23	23	0/23			340.000	1900.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/23	23	0/23			340.000	1900.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/16	16	0/16			340.000	1900.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	3/23	23	3/23	40.000-7900.000	2672.67	340.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/23	23	0/23			340.000	1900.000	
CHRYSENE	UG/KG	0/23	23	0/23			340.000	1900.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/23	23	1/23	37.000-37.000	37.00	360.000	1900.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/23	23	0/23			340.000	1900.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/23	23	0/23			340.000	1900.000	
DIBENZOFURAN	UG/KG	0/23	23	0/23			340.000	1900.000	
DIETHYL PHTHALATE	UG/KG	1/23	23	1/23	43.000-43.000	43.00	340.000	1900.000	
DIMETHYL PHTHALATE	UG/KG	0/23	23	0/23			340.000	1900.000	
FLUORANTHENE	UG/KG	1/23	23	1/23	88.000-88.000	88.00	340.000	1900.000	
FLUORENE	UG/KG	0/23	23	0/23			340.000	1900.000	
HEXACHLOROBENZENE	UG/KG	0/23	23	0/23			340.000	1900.000	
HEXACHLOROBUTADIENE	UG/KG	0/23	23	0/23			340.000	1900.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/23	23	0/23			340.000	1900.000	
HEXACHLOROETHANE	UG/KG	0/23	23	0/23			340.000	1900.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/23	23	0/23			340.000	1900.000	
ISOPHORONE	UG/KG	0/23	23	0/23			340.000	1900.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/21	21	0/21			340.000	1900.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/23	23	0/23			340.000	1900.000	
NAPHTHALENE	UG/KG	0/23	23	0/23			340.000	1900.000	
NITROBENZENE	UG/KG	0/20	20	0/20			340.000	1900.000	
P-CHLOROANILINE	UG/KG	0/23	23	0/23			340.000	1900.000	
PENTACHLOROPHENOL	UG/KG	0/23	23	0/23			1600.000	9100.000	
PHENANTHRENE	UG/KG	1/23	23	1/23	48.000-48.000	48.00	340.000	1900.000	
PHENOL	UG/KG	1/23	23	1/23	48.000-48.000	48.00	340.000	1900.000	
PYRENE	UG/KG	1/23	23	1/23	68.000-68.000	68.00	340.000	1900.000	
PYRIDINE	UG/KG	0/1	1	0/1			370.000	370.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
TOTAL METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/24	24	0/24			360.000	1900.000	
1,2-DICHLOROBENZENE	UG/KG	0/24	24	0/24			360.000	1900.000	
1,3-DICHLOROBENZENE	UG/KG	0/24	24	0/24			360.000	1900.000	
1,4-DICHLOROBENZENE	UG/KG	0/24	24	0/24			360.000	1900.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/24	24	0/24			880.000	9200.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	
2,4-DICHLOROPHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	
2,4-DIMETHYLPHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	
2,4-DINITROPHENOL	UG/KG	0/24	24	0/24			880.000	9200.000	
2,4-DINITROTOLUENE	UG/KG	0/24	24	0/24			360.000	1900.000	
2,6-DINITROTOLUENE	UG/KG	0/24	24	0/24			360.000	1900.000	
2-CHLORONAPHTHALENE	UG/KG	0/24	24	0/24			360.000	1900.000	
2-CHLOROPHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	
2-METHYLNAPHTHALENE	UG/KG	0/24	24	0/24			360.000	1900.000	
2-METHYLPHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	
2-NITROANILINE	UG/KG	0/24	24	0/24			880.000	9200.000	
2-NITROPHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/24	24	0/24			360.000	3800.000	
3-NITROANILINE	NONE	0/24	24	0/24			880.000	9200.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/24	24	0/24			880.000	9200.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/24	24	0/24			360.000	1900.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/24	24	0/24			360.000	1900.000	
4-METHYLPHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	
4-NITROANILINE	UG/KG	0/24	24	0/24			880.000	9200.000	
4-NITROPHENOL	UG/KG	0/24	24	0/24			880.000	9200.000	
ACENAPHTHENE	UG/KG	0/24	24	0/24			360.000	1900.000	
ACENAPHTHYLENE	UG/KG	0/24	24	0/24			360.000	1900.000	
ANTHRACENE	UG/KG	1/24	24	1/24	51.000-51.000	51.00	360.000	1900.000	
BENZO(A)ANTHRACENE	UG/KG	1/24	24	1/24	54.000-54.000	54.00	360.000	1900.000	
BENZO(A)PYRENE	UG/KG	0/24	24	0/24			360.000	1900.000	
BENZO(B)FLUORANTHENE	UG/KG	0/24	24	0/24			360.000	1900.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/24	24	0/24			360.000	1900.000	
BENZO(K)FLUORANTHENE	UG/KG	0/24	24	0/24			360.000	1900.000	
BENZOIC ACID	UG/KG	0/24	24	0/24			380.000	9200.000	
BENZYL ALCOHOL	UG/KG	0/24	24	0/24			360.000	1900.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/24	24	0/24			360.000	1900.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/24	24	0/24			360.000	1900.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/13	13	0/13			360.000	1900.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	6/24	24	6/24	39.000-3600.000	1038.17	360.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/24	24	0/24			360.000	1900.000	
CARBAZOLE	UG/KG	0/2	2	0/2			360.000	470.000	
CHRYSENE	UG/KG	1/24	24	1/24	63.000-63.000	63.00	360.000	1900.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/24	24	0/24			360.000	1900.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/24	24	0/24			360.000	1900.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/24	24	0/24			360.000	1900.000	
DIBENZOFURAN	UG/KG	0/24	24	0/24			360.000	1900.000	
DIETHYL PHTHALATE	UG/KG	1/24	24	1/24	120.000-120.000	120.00	360.000	1900.000	
DIMETHYL PHTHALATE	UG/KG	0/24	24	0/24			360.000	1900.000	
FLUORANTHENE	UG/KG	1/24	24	1/24	140.000-140.000	140.00	360.000	1900.000	
FLUORENE	UG/KG	0/24	24	0/24			360.000	1900.000	
HEXACHLOROBENZENE	UG/KG	0/24	24	0/24			360.000	1900.000	
HEXACHLOROBUTADIENE	UG/KG	0/24	24	0/24			360.000	1900.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/24	24	0/24			360.000	1900.000	
HEXACHLOROETHANE	UG/KG	0/24	24	0/24			360.000	1900.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/24	24	0/24			360.000	1900.000	
ISOPHORONE	UG/KG	0/24	24	0/24			360.000	1900.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/21	21	0/21			360.000	1900.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/24	24	0/24			360.000	1900.000	
NAPHTHALENE	UG/KG	0/24	24	0/24			360.000	1900.000	
NITROBENZENE	UG/KG	0/20	20	0/20			360.000	1900.000	
P-CHLOROANILINE	UG/KG	0/24	24	0/24			360.000	1900.000	
PENTACHLOROPHENOL	UG/KG	0/24	24	0/24			880.000	9200.000	
PHENANTHRENE	UG/KG	1/24	24	1/24	140.000-140.000	140.00	360.000	1900.000	
PHENOL	UG/KG	0/24	24	0/24			360.000	1900.000	
PYRENE	UG/KG	1/24	24	1/24	99.000-99.000	99.00	360.000	1900.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			370.000	370.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			910.000	910.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			370.000	370.000	
3-NITROANILINE	NONE	0/1	1	0/1			910.000	910.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			910.000	910.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			910.000	910.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			370.000	370.000	
ANTHRACENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			370.000	370.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			1800.000	1800.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			370.000	370.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	2800.000-2800.000	2800.00			
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
CARBAZOLE	UG/KG	0/1	1	0/1			370.000	370.000	
CHRYSENE	UG/KG	0/1	1	0/1			370.000	370.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			370.000	370.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			370.000	370.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			370.000	370.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			370.000	370.000	
FLUORENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			370.000	370.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			370.000	370.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			370.000	370.000	
ISOPHORONE	UG/KG	0/1	1	0/1			370.000	370.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			370.000	370.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			370.000	370.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			370.000	370.000	
NITROBENZENE	UG/KG	0/1	1	0/1			370.000	370.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			370.000	370.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			910.000	910.000	
PHENOL	UG/KG	0/1	1	0/1			370.000	370.000	
PYRENE	UG/KG	0/1	1	0/1			370.000	370.000	

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			850.000	850.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			850.000	850.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			350.000	350.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			350.000	350.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			350.000	350.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			350.000	350.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			850.000	850.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			350.000	350.000	
3-NITROANILINE	NONE	0/1	1	0/1			850.000	850.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			850.000	850.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			350.000	350.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			350.000	350.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			850.000	850.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			850.000	850.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			350.000	350.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			350.000	350.000	
ANTHRACENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			350.000	350.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1700.000	1700.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			350.000	350.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			350.000	350.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			350.000	350.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	2000.000-2000.000	2000.00			
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
CARBAZOLE	UG/KG	0/1	1	0/1			350.000	350.000	
CHRYSENE	UG/KG	0/1	1	0/1			350.000	350.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			350.000	350.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			350.000	350.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			350.000	350.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			350.000	350.000	
FLUORENE	UG/KG	0/1	1	0/1			350.000	350.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			350.000	350.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			350.000	350.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			350.000	350.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			350.000	350.000	
ISOPHORONE	UG/KG	0/1	1	0/1			350.000	350.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			350.000	350.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			350.000	350.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			350.000	350.000	
NITROBENZENE	UG/KG	0/1	1	0/1			350.000	350.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			350.000	350.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			850.000	850.000	
PHENOL	UG/KG	0/1	1	0/1			350.000	350.000	
PYRENE	UG/KG	0/1	1	0/1			350.000	350.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/6	6	0/6			3.600	950.000	
4,4'-DDE	UG/KG	0/6	6	0/6			3.600	950.000	
4,4'-DDT	UG/KG	0/6	6	0/6			3.600	950.000	
ALDRIN	UG/KG	0/6	6	0/6			1.900	470.000	
ALPHA-BHC	UG/KG	0/6	6	0/6			1.900	470.000	
ALPHA-CHLORDANE	UG/KG	0/6	6	0/6			1.900	4700.000	
AROCLOR-1016	UG/KG	0/6	6	0/6			36.000	4700.000	
AROCLOR-1221	UG/KG	0/6	6	0/6			74.000	4700.000	
AROCLOR-1232	UG/KG	0/6	6	0/6			36.000	4700.000	
AROCLOR-1242	UG/KG	0/6	6	0/6			36.000	4700.000	
AROCLOR-1248	UG/KG	0/6	6	0/6			36.000	4700.000	
AROCLOR-1254	UG/KG	3/6	6	3/6	460.000-10000.000	3853.33	36.000	7100.000	
AROCLOR-1260	UG/KG	0/6	6	0/6			36.000	9500.000	
BETA-BHC	UG/KG	0/6	6	0/6			1.900	470.000	
DELTA-BHC	UG/KG	0/6	6	0/6			1.900	470.000	
DIELDRIN	UG/KG	0/6	6	0/6			3.600	950.000	
ENDOSULFAN II	UG/KG	0/6	6	0/6			3.600	950.000	
ENDOSULFAN SULFATE	UG/KG	0/6	6	0/6			3.600	950.000	
ENDOSULFAN-I	UG/KG	0/6	6	0/6			1.900	470.000	
ENDRIN	UG/KG	0/6	6	0/6			3.600	950.000	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.600	3.700	
ENDRIN KETONE	UG/KG	0/6	6	0/6			3.600	950.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/6	6	0/6			1.900	470.000	
GAMMA-CHLORDANE	UG/KG	0/6	6	0/6			1.900	4700.000	
HEPTACHLOR	UG/KG	0/6	6	0/6			1.900	470.000	
HEPTACHLOR EPOXIDE	UG/KG	0/6	6	0/6			1.900	470.000	
METHOXYCHLOR	UG/KG	0/6	6	0/6			19.000	4700.000	
TOXAPHENE	UG/KG	0/6	6	0/6			190.000	9500.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/21	21	0/21			17.000	720.000	
4,4'-DDE	UG/KG	0/21	21	0/21			17.000	720.000	
4,4'-DDT	UG/KG	0/21	21	0/21			17.000	720.000	
ALDRIN	UG/KG	0/21	21	0/21			8.500	360.000	
ALPHA-BHC	UG/KG	0/21	21	0/21			8.500	360.000	
ALPHA-CHLORDANE	UG/KG	0/21	21	0/21			85.000	3600.000	
AROCLOR-1016	UG/KG	0/21	21	0/21			85.000	3600.000	
AROCLOR-1221	UG/KG	0/21	21	0/21			85.000	3600.000	
AROCLOR-1232	UG/KG	0/21	21	0/21			85.000	3600.000	
AROCLOR-1242	UG/KG	0/21	21	0/21			85.000	3600.000	
AROCLOR-1248	UG/KG	0/21	21	0/21			85.000	3600.000	
AROCLOR-1254	UG/KG	14/22	22	14/22	39.000-2800.000	856.50	170.000	950.000	
AROCLOR-1260	UG/KG	2/22	22	2/22	140.000-2100.000	1120.00	170.000	7200.000	
BETA-BHC	UG/KG	0/21	21	0/21			8.500	360.000	
DELTA-BHC	UG/KG	0/21	21	0/21			8.500	360.000	
DIELDRIN	UG/KG	0/21	21	0/21			17.000	720.000	
ENDOSULFAN II	UG/KG	0/21	21	0/21			17.000	720.000	
ENDOSULFAN SULFATE	UG/KG	0/21	21	0/21			17.000	720.000	
ENDOSULFAN-I	UG/KG	0/21	21	0/21			8.500	360.000	
ENDRIN	UG/KG	0/21	21	0/21			17.000	720.000	
ENDRIN KETONE	UG/KG	0/21	21	0/21			17.000	720.000	
GAMMA-BHC (LINDANE)	UG/KG	0/21	21	0/21			8.500	360.000	

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AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-CHLORDANE	UG/KG	0/21	21	0/21			85.000	3600.000	
HEPTACHLOR	UG/KG	0/21	21	0/21			8.500	360.000	
HEPTACHLOR EPOXIDE	UG/KG	0/21	21	0/21			8.500	360.000	
METHOXYCHLOR	UG/KG	0/21	21	0/21			85.000	3600.000	
TOXAPHENE	UG/KG	0/20	20	0/20			170.000	7200.000	

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.600	18.000	
4,4'-DDE	UG/KG	0/3	3	0/3			3.600	18.000	
4,4'-DDT	UG/KG	0/3	3	0/3			3.600	18.000	
ALDRIN	UG/KG	0/3	3	0/3			1.800	8.800	
ALPHA-BHC	UG/KG	0/3	3	0/3			1.800	8.800	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	88.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			36.000	88.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			73.000	88.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			36.000	88.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			36.000	88.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			36.000	88.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			36.000	180.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			36.000	180.000	
BETA-BHC	UG/KG	0/3	3	0/3			1.800	8.800	
DELTA-BHC	UG/KG	0/3	3	0/3			1.800	8.800	
DIELDRIN	UG/KG	0/3	3	0/3			3.600	18.000	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.600	18.000	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.600	18.000	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			1.800	8.800	
ENDRIN	UG/KG	0/3	3	0/3			3.600	18.000	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.600	3.800	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.600	18.000	

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000840

5699

AREA: Maintenance Building Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			1.800	8.800	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			1.800	88.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			1.800	8.800	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			1.800	8.800	
METHOXYCHLOR	UG/KG	0/3	3	0/3			18.000	88.000	
TOXAPHENE	UG/KG	0/3	3	0/3			180.000	190.000	

000841

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/25	24	0/25			3.400	180.000	
4,4'-DDE	UG/KG	0/25	24	0/25			3.400	180.000	
4,4'-DDT	UG/KG	0/25	24	0/25			3.400	180.000	
ALDRIN	UG/KG	0/25	24	0/25			1.700	90.000	
ALPHA-BHC	UG/KG	1/25	24	1/25	17.000-17.000	17.00	1.700	90.000	
ALPHA-CHLORDANE	UG/KG	0/25	24	0/25			1.700	900.000	
AROCLOR-1016	UG/KG	0/25	25	0/25			34.000	900.000	
AROCLOR-1221	UG/KG	0/25	24	0/25			68.000	900.000	
AROCLOR-1232	UG/KG	0/25	25	0/25			34.000	900.000	
AROCLOR-1242	UG/KG	0/25	25	0/25			34.000	900.000	
AROCLOR-1248	UG/KG	0/25	25	0/25			34.000	900.000	
AROCLOR-1254	UG/KG	5/25	24	5/25	26.000-240.000	110.20	34.000	1800.000	
AROCLOR-1260	UG/KG	0/25	24	0/25			34.000	1800.000	
BETA-BHC	UG/KG	0/25	24	0/25			1.700	90.000	
DELTA-BHC	UG/KG	0/25	24	0/25			1.700	90.000	
DIELDRIN	UG/KG	0/25	24	0/25			3.400	180.000	
ENDOSULFAN II	UG/KG	0/25	24	0/25			3.400	180.000	
ENDOSULFAN SULFATE	UG/KG	0/25	24	0/25			3.400	180.000	
ENDOSULFAN-I	UG/KG	0/25	24	0/25			1.700	90.000	
ENDRIN	UG/KG	0/25	24	0/25			3.400	180.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.400	3.400	
ENDRIN KETONE	UG/KG	0/25	24	0/25			3.400	180.000	

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000842

5699

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/25	24	0/25			1.700	90.000	
GAMMA-CHLORDANE	UG/KG	0/25	24	0/25			1.700	900.000	
HEPTACHLOR	UG/KG	0/25	24	0/25			1.700	90.000	
HEPTACHLOR EPOXIDE	UG/KG	0/25	24	0/25			1.700	90.000	
METHOXYCHLOR	UG/KG	0/25	24	0/25			17.000	900.000	
TOXAPHENE	UG/KG	0/25	25	0/25			160.000	1800.000	

000863

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/23	23	0/23			18.000	700.000	
4,4'-DDE	UG/KG	0/23	23	0/23			18.000	700.000	
4,4'-DDT	UG/KG	0/23	23	0/23			18.000	700.000	
ALDRIN	UG/KG	0/23	23	0/23			9.100	350.000	
ALPHA-BHC	UG/KG	0/23	23	0/23			9.100	350.000	
ALPHA-CHLORDANE	UG/KG	0/23	23	0/23			91.000	3500.000	
AROCLOR-1016	UG/KG	0/23	23	0/23			91.000	3500.000	
AROCLOR-1221	UG/KG	0/23	23	0/23			91.000	3500.000	
AROCLOR-1232	UG/KG	0/23	23	0/23			91.000	3500.000	
AROCLOR-1242	UG/KG	0/23	23	0/23			91.000	3500.000	
AROCLOR-1248	UG/KG	0/23	23	0/23			91.000	3500.000	
AROCLOR-1254	UG/KG	3/23	23	3/23	84.000-1200.000	464.67	18.000	740.000	
AROCLOR-1260	UG/KG	0/23	23	0/23			180.000	7000.000	
BETA-BHC	UG/KG	0/23	23	0/23			9.100	350.000	
DELTA-BHC	UG/KG	0/23	23	0/23			9.100	350.000	
DIELDRIN	UG/KG	0/23	23	0/23			18.000	700.000	
ENDOSULFAN II	UG/KG	0/23	23	0/23			18.000	700.000	
ENDOSULFAN SULFATE	UG/KG	0/23	23	0/23			18.000	700.000	
ENDOSULFAN-I	UG/KG	0/23	23	0/23			9.100	350.000	
ENDRIN	UG/KG	0/23	23	0/23			18.000	700.000	
ENDRIN KETONE	UG/KG	0/23	23	0/23			18.000	700.000	
GAMMA-BHC (LINDANE)	UG/KG	0/23	23	0/23			9.100	350.000	

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-CHLORDANE	UG/KG	0/23	23	0/23			91.000	3500.000	
HEPTACHLOR	UG/KG	0/23	23	0/23			9.100	350.000	
HEPTACHLOR EPOXIDE	UG/KG	0/23	23	0/23			9.100	350.000	
METHOXYCHLOR	UG/KG	0/23	23	0/23			91.000	3500.000	
TOXAPHENE	UG/KG	0/23	23	0/23			180.000	7000.000	

000845

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AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/24	24	0/24			3.700	190.000	
4,4'-DDE	UG/KG	0/24	24	0/24			3.700	190.000	
4,4'-DDT	UG/KG	0/24	24	0/24			3.700	190.000	
ALDRIN	UG/KG	0/24	24	0/24			1.900	95.000	
ALPHA-BHC	UG/KG	0/24	24	0/24			1.900	95.000	
ALPHA-CHLORDANE	UG/KG	0/24	24	0/24			1.900	950.000	
AROCLOR-1016	UG/KG	0/24	24	0/24			37.000	950.000	
AROCLOR-1221	UG/KG	0/24	24	0/24			75.000	950.000	
AROCLOR-1232	UG/KG	0/24	24	0/24			37.000	950.000	
AROCLOR-1242	UG/KG	0/24	24	0/24			37.000	950.000	
AROCLOR-1248	UG/KG	0/24	24	0/24			37.000	950.000	
AROCLOR-1254	UG/KG	3/24	24	3/24	32.000-500.000	191.67	37.000	900.000	
AROCLOR-1260	UG/KG	0/24	24	0/24			37.000	1900.000	
BETA-BHC	UG/KG	0/24	24	0/24			1.900	95.000	
DELTA-BHC	UG/KG	0/24	24	0/24			1.900	95.000	
DIELDRIN	UG/KG	0/24	24	0/24			3.700	190.000	
ENDOSULFAN II	UG/KG	0/24	24	0/24			3.700	190.000	
ENDOSULFAN SULFATE	UG/KG	0/24	24	0/24			3.700	190.000	
ENDOSULFAN-I	UG/KG	0/24	24	0/24			1.900	95.000	
ENDRIN	UG/KG	0/24	24	0/24			3.700	190.000	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.700	4.700	
ENDRIN KETONE	UG/KG	0/24	24	0/24			3.700	190.000	

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000846

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/24	24	0/24			1.900	95.000	
GAMMA-CHLORDANE	UG/KG	0/24	24	0/24			1.900	950.000	
HEPTACHLOR	UG/KG	0/24	24	0/24			1.900	95.000	
HEPTACHLOR EPOXIDE	UG/KG	0/24	24	0/24			1.900	95.000	
METHOXYCHLOR	UG/KG	0/24	24	0/24			19.000	950.000	
TOXAPHENE	UG/KG	0/24	24	0/24			180.000	1900.000	

000842

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.700	3.700	
4,4'-DDE	UG/KG	0/1	1	0/1			3.700	3.700	
4,4'-DDT	UG/KG	0/1	1	0/1			3.700	3.700	
ALDRIN	UG/KG	0/1	1	0/1			1.900	1.900	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	1.900	
AROCLOR-1016	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			75.000	75.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			37.000	37.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			37.000	37.000	
BETA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
DELTA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
DIELDRIN	UG/KG	0/1	1	0/1			3.700	3.700	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.700	3.700	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.700	3.700	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			1.900	1.900	
ENDRIN	UG/KG	0/1	1	0/1			3.700	3.700	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.700	3.700	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.700	3.700	

000848

5690

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.900	1.900	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	1.900	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.900	1.900	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.900	1.900	
METHOXYCHLOR	UG/KG	0/1	1	0/1			19.000	19.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	190.000	

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.500	3.500	
4,4'-DDE	UG/KG	0/1	1	0/1			3.500	3.500	
4,4'-DDT	UG/KG	0/1	1	0/1			3.500	3.500	
ALDRIN	UG/KG	0/1	1	0/1			1.800	1.800	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.800	1.800	
AROCLOR-1016	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			72.000	72.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			35.000	35.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			35.000	35.000	
BETA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
DELTA-BHC	UG/KG	0/1	1	0/1			1.800	1.800	
DIELDRIN	UG/KG	0/1	1	0/1			3.500	3.500	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.500	3.500	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.500	3.500	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			1.800	1.800	
ENDRIN	UG/KG	0/1	1	0/1			3.500	3.500	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.500	3.500	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.500	3.500	

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000850

AREA: Maintenance Building Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.800	1.800	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.800	1.800	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.800	1.800	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.800	1.800	
METHOXYCHLOR	UG/KG	0/1	1	0/1			18.000	18.000	
TOXAPHENE	UG/KG	0/1	1	0/1			180.000	180.000	

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D.2.13 TANK FARM AND BOILER HOUSE

The tank farm and boiler house area covers an approximate 200- by 1000-foot rectangle near the central portion of the former production area of the FEMP, as shown in Figure D.2-17. The boiler house is located in the northern portion of the area, along with several small buildings and pads. The tank farm is located primarily in the central and southern portions of the area. No removal actions have been associated with this area to date. However, the sump in the central part of the tank farm is designated a hazardous waste management unit (HWMU) to be closed under CERCLA. Table D-1 summarizes parameters known to be present or used in this area.

Sampling in the area has been performed in phases. The major sampling program for this area was directed toward the sump area in the central portion of the area and was conducted in 1989. Locations 1572 and PA-SS-08 were sampled in 1990 and 1993, respectively, as part of investigations in the adjacent graphite furnace and maintenance building areas.

Surface Soil

Surface sampling in the tank farm and boiler house area was concentrated in drainageways and near aboveground tanks as shown in Figure D.2-17. Selected samples were tested, based on the requirements of the program under which they were obtained. The test results for all the investigations in the area were combined for this discussion. The test results were compared to the 95th percentile background values (background) for each radionuclide and inorganic constituent. Test results were compared with their respective detection limits for organics, PCBs, and pesticides. Table D.2-13 presents the distribution of constituents throughout the tank farm and boiler house area with respect to these comparison levels by depth interval. Isoconcentration maps showing the lateral extent of the levels of the constituents are presented in the Plates.

Testing for total uranium was performed on five surface soil samples from throughout the tank farm and boiler house area. Testing for other radionuclides was generally limited to two samples within this zone from location PA-SS-08. Samples tested for radionuclides showed levels of total uranium, uranium-238, and uranium-234 greater than five times background in the 0- to 0.5-foot depth interval. Total uranium was detected at levels at least twice background in the 1.0- to 1.5-foot depth interval. The maximum concentration of total uranium in the area was 53 mg/kg at the surface, a level which decreased significantly (to 13 mg/kg) at the 1.0- to 1.5-foot interval. Other radionuclides were detected below background except for total thorium.

Most inorganics were detected at levels below background in the surface sampling zone. Cadmium, calcium, and magnesium were detected at levels exceeding five times background in the 0.5- to 1.0-foot interval at Boring 1572. This location is associated with the adjacent graphite furnace, oil burner, and coal pile (see Section D.2.16). Calcium and mercury were detected at levels twice background at location PA-SS-08 near the maintenance building (see Section D.2.12).

A limited number of volatile organics (chloroethanes and chloroethenes) were detected within the surface sampling zone at the 1572 and PA-SS-08 locations. Only one semivolatile organic, bis(2-ethylhexyl)phthalate, was detected in the surface sampling zone at these two locations. This semivolatile is a common laboratory contaminant. No pesticides were detected in the surface sampling zone. Aroclor-1254 and Aroclor-1260 (PCBs) were detected in the 0- to 0.5-foot and 0.5- to 1.0-foot sample intervals at PA-SS-08 and Boring 1572, respectively with levels ranging from 33 to 230 μg/kg.

Subsurface Soil

Subsurface sampling locations are shown in Figure D.2-17. A distribution of constituents with respect to the 95th percentile background values (background) is presented in Table D.2-13.

Total uranium and total thorium were the only radionuclides for which analyses were performed in the subsurface soil in the tank farm and boiler house area. Total uranium was detected at levels twice background throughout the area at levels of 5 to 10 mg/kg. Total thorium levels were above background at all sampled intervals except the 3.0- to 5.0-foot depth.

Levels of most inorganics detected in subsurface soil in this area are less than surface levels and are below background, with the exception of cadmium and magnesium. Levels of cadmium and magnesium, with detections at least five times background, occurred to depths of 5 feet, the maximum depth interval tested at location 1572, located near the graphite furnace and oil burner.

Subsurface detections of volatile organics and semivolatile organics were limited to the same constituents as the surface samples--chloroethanes and chloroethenes. Detections were limited to the 1.5- to 3.0-foot and 3.0- to 5.0-foot intervals, the only ones tested at location 1572. Only one sample was analyzed in each interval. No pesticides or PCBs were detected in the subsurface soil samples.

Conclusions

Contamination present in the tank farm and boiler house area is found in both surface and subsurface soils. Uranium and its isotopes and several inorganic constituents were detected at levels above background in surface and subsurface soil. The uranium and thorium contamination appears to be associated with air deposition, since the highly elevated levels are primarily limited to the 0- to 0.5-foot interval. Organic contaminants were detected at locations associated with the adjacent graphite furnace and the maintenance building (Sections D.2.16 and D.2.12).

Potential sources of contamination detected by the sampling programs performed throughout the tank farm and boiler house area are primarily airborne deposition (surface soil) or from leaks in the tank farm sump (subsurface soil). Sources in the graphite furnace, oil burner, and the maintenance building area (see Sections D.2.16 and D.2.12) also contribute to contamination in this area. The coal pile area is also a potential contributor of inorganics and PAHs to this area.

TABLE D.2-13
TANK FARM AND BOILER HOUSE
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	2		■	■		○	▒		●	-								
0.5 - 1	0																	
1 - 1.5	1		▒		○	-		○	○	-	○							
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	2		▒						●									
3 - 5	2								○									
5 - 10	3		▒						●									
10 - 15	2		▒						●									
15 - 20	2		▒						○									

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	16.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	1	●	-	●	●	-	▒	■	●	○	-	-	●	○	▒	○	▒	-	-	●	-	-	-	-	-	●	●
0.5 - 1	1	○		▒	●	▒	■	■		○	●	○	○	●	■	○	○	X		○	○		X	▒	-	○	○
1 - 1.5	1	●	-	●	○	-	▒	●	●	○	-	-	●	○	●	○	●	-	-	●	-	-	-	-	-	●	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	1	○		○	○	●	■	○		○	●	○	○	○	○	○	-	●		○	X		X	○	-	○	○
3 - 5	1	○		○	○	-	■	○		-	●	●	○	○	○	○	-	-		○	X		X	○	-	○	○
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

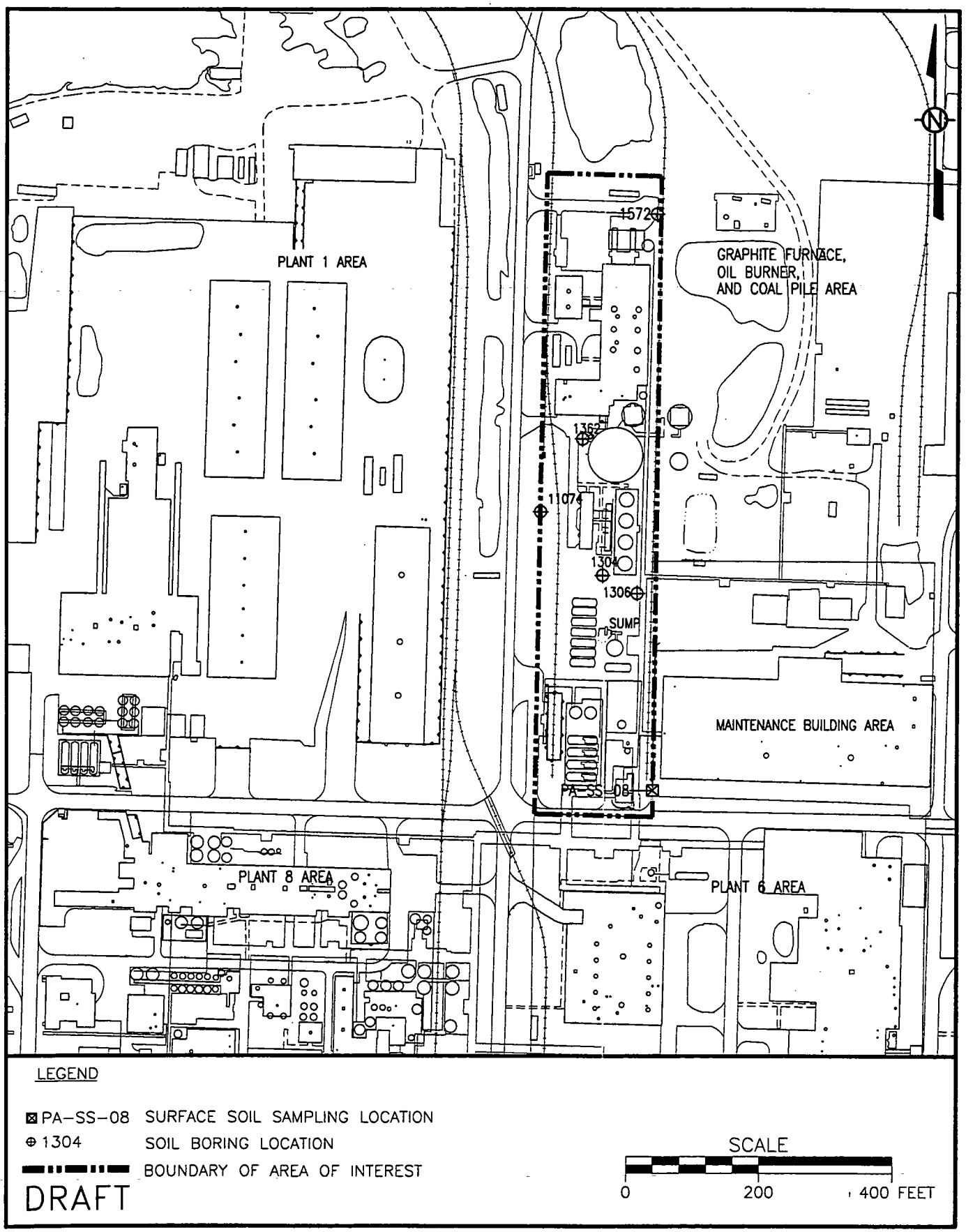
TABLE D.2-13
(Continued)

	VOLATILES (ug/kg)										SEMIVOLATILES (ug/kg)										PESTICIDES/PCBs (ug/kg)										
Depth Interval, Feet	Number of Samples	1,1,1-Trichloroethane	1,1,-Dichloroethane	1,1-Dichloroethene	Acetone	Methylene chloride	Trichloroethene				Number of Samples	Bis(2-ethylhexyl)phthalate									Number of Samples	Aroclor-1254	Aroclor-1260								
Surface Soil:																															
0 - 0.5	1	-	-	-	-	-	-				1	-									1	X	-								
0.5 - 1	1	X	-	-	-	-	X				1	X									1	X	X								
1 - 1.5	1	-	-	-	-	X	-				1	-									1	-	-								
Subsurface Soil:																															
1.5 - 3	1	X	X	X	-	-	X				1	X									1	-	-								
3 - 5	1	X	-	-	-	-	X				0										0										
5 - 10	0										0										0										
10 - 15	0										0										0										
15 - 20	0										0										0										

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.



STATE PLANAR COORDINATE SYSTEM 1927

ACAD: C:\4P94\8.SCR 05/26/94 RSG
ACAD: C:\4P94\94051002.DWG 6/11/94 JAK

FIGURE D.2-17. TANK FARM AND BOILER HOUSE AREA

Tank Farm and Boiler House Area

Summary Soil Statistics

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	7.800-7.800	7.80	12.000	12.000	1.24
URANIUM, TOTAL	MG/KG	5/5	0	5/5	7.490-53.300	26.48	12.000	12.000	3.73
URANIUM-234	PCI/G	1/1	1	1/1	8.100-8.100	8.10	12.000	12.000	1.24
RADIUM-226	PCI/G	1/1	1	0/1	0.400-0.400	0.40	12.000	12.000	1.42
URANIUM-235/236	PCI/G	1/1	1	1/1	0.400-0.400	0.40	12.000	12.000	0.156
THORIUM, TOTAL	MG/KG	3/4	0	1/4	3.640-18.000	9.09	3.060	3.060	12.4
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.25

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM, TOTAL	MG/KG	1/1	1	1/1	13.100-13.100	13.10	12.000	12.000	3.73
THORIUM-230	PCI/G	1/1	1	0/1	1.100-1.100	1.10	12.000	12.000	1.97
RADIUM-226	PCI/G	0/1	1	0/1			0.250	0.250	1.42
THORIUM-232	PCI/G	1/1	1	0/1	0.700-0.700	0.70	12.000	12.000	1.36
THORIUM, TOTAL	MG/KG	1/1	0	0/1	6.384-6.384	6.38	12.000	12.000	12.4
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.25
THORIUM-228	PCI/G	1/1	1	0/1	0.800-0.800	0.80	12.000	12.000	1.43

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000089

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM, TOTAL	MG/KG	1/2	0	1/2	11.000-11.000	11.00	4.000	4.000	3.69
THORIUM, TOTAL	MG/KG	1/2	0	1/2	18.000-18.000	18.00	2.800	2.800	11.1

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 3 - 5 FEET									
THORIUM, TOTAL	MG/KG	2/2	2	0/2	3.860-5.560	4.71	6.000	6.000	11.1

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM, TOTAL	MG/KG	3/3	0	3/3	4.000-11.000	7.44	3.140	3.600	3.69
THORIUM, TOTAL	MG/KG	1/3	0	1/3	18.000-18.000	18.00	3.140	3.600	11.1

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	2/2	1	2/2	4.880-11.000	7.94			3.69
THORIUM, TOTAL	MG/KG	2/2	1	1/2	7.060-18.000	12.53			11.1

000864

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AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	1/2	0	1/2	4.100-4.100	4.10	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	1/2	0	0/2	4.620-4.620	4.62	18.000	18.000	11.1

000865

05/24/94

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	1/1	1	1/1	16700.000-16700.000	16700.00	12.000	12.000	11900
ANTIMONY	MG/KG	0/1	1	0/1			2.600	2.600	NA
ARSENIC	MG/KG	1/1	1	1/1	8.900-8.900	8.90	12.000	12.000	8.20
BARIUM	MG/KG	1/1	1	1/1	97.700-97.700	97.70	12.000	12.000	95.7
BERYLLIUM	MG/KG	0/1	1	0/1			0.940	0.940	0.6
CADMIUM	MG/KG	1/1	1	1/1	2.100-2.100	2.10	12.000	12.000	0.870
CALCIUM	MG/KG	1/1	1	1/1	19400.000-19400.000	19400.00	12.000	12.000	4340
CHROMIUM	MG/KG	1/1	1	1/1	23.200-23.200	23.20	12.000	12.000	15.5
COBALT	MG/KG	1/1	1	0/1	7.700-7.700	7.70	12.000	12.000	14.2
COPPER	MG/KG	0/1	1	0/1			21.100	21.100	14.1
CYANIDE	MG/KG	0/1	1	0/1			0.290	0.290	0.270
IRON	MG/KG	1/1	1	1/1	26400.000-26400.000	26400.00	12.000	12.000	21700
LEAD	MG/KG	1/1	1	0/1	22.700-22.700	22.70	12.000	12.000	26.4
MAGNESIUM	MG/KG	1/1	1	1/1	7180.000-7180.000	7180.00	12.000	12.000	2780
MANGANESE	MG/KG	1/1	1	0/1	374.000-374.000	374.00	12.000	12.000	1350
MERCURY	MG/KG	1/1	1	1/1	1.300-1.300	1.30	12.000	12.000	0.3
MOLYBDENUM	MG/KG	0/1	1	0/1			4.000	4.000	NA
NICKEL	MG/KG	0/1	1	0/1			24.900	24.900	20.9
POTASSIUM	MG/KG	1/1	1	1/1	1520.000-1520.000	1520.00	12.000	12.000	1230
SELENIUM	MG/KG	0/1	1	0/1			0.230	0.230	0.72
SILICON	MG/KG	0/1	1	0/1			57.000	57.000	1800
SILVER	MG/KG	0/1	1	0/1			0.470	0.470	NA

05/24/94

000866

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	0/1	1	0/1			32.900	32.900	51.1
THALLIUM	MG/KG	0/1	1	0/1			0.340	0.340	0.58
VANADIUM	MG/KG	1/1	1	1/1	34.300-34.300	34.30	12.000	12.000	30.4
ZINC	MG/KG	1/1	1	1/1	72.500-72.500	72.50	12.000	12.000	59.6

000867

05/24/94

5699

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	4220.000-4220.000	4220.00	5.000	5.000	11900
ARSENIC	MG/KG	1/1	1	1/1	22.300-22.300	22.30	5.000	5.000	8.20
BARIUM	MG/KG	1/1	1	1/1	121.000-121.000	121.00	5.000	5.000	95.7
BERYLLIUM	MG/KG	1/1	1	1/1	1.300-1.300	1.30	5.000	5.000	0.6
CADMIUM	MG/KG	1/1	1	1/1	5.400-5.400	5.40	5.000	5.000	0.870
CALCIUM	MG/KG	1/1	1	1/1	112000.000-112000.000	112000.00	5.000	5.000	4340
COBALT	MG/KG	1/1	1	0/1	7.200-7.200	7.20	5.000	5.000	14.2
COPPER	MG/KG	1/1	1	1/1	22.800-22.800	22.80	5.000	5.000	14.1
CYANIDE	MG/KG	1/1	1	0/1	0.240-0.240	0.24	5.000	5.000	0.270
IRON	MG/KG	1/1	1	0/1	9150.000-9150.000	9150.00	5.000	5.000	21700
LEAD	MG/KG	1/1	1	1/1	27.300-27.300	27.30	5.000	5.000	26.4
MAGNESIUM	MG/KG	1/1	1	1/1	30300.000-30300.000	30300.00	5.000	5.000	2780
MANGANESE	MG/KG	1/1	1	0/1	254.000-254.000	254.00	5.000	5.000	1350
MERCURY	MG/KG	1/1	1	0/1	0.150-0.150	0.15	5.000	5.000	0.3
MOLYBDENUM	MG/KG	1/1	1	1/1	2.300-2.300	2.30	5.000	5.000	NA
POTASSIUM	MG/KG	1/1	1	0/1	444.000-444.000	444.00	5.000	5.000	1230
SELENIUM	MG/KG	1/1	1	0/1	0.700-0.700	0.70	5.000	5.000	0.72
SILVER	MG/KG	1/1	1	1/1	4.900-4.900	4.90	5.000	5.000	NA
SODIUM	MG/KG	1/1	1	1/1	141.000-141.000	141.00	5.000	5.000	51.1
THALLIUM	MG/KG	0/1	1	0/1			0.410	0.410	0.58
VANADIUM	MG/KG	1/1	1	0/1	15.100-15.100	15.10	5.000	5.000	30.4
ZINC	MG/KG	1/1	1	0/1	45.500-45.500	45.50	5.000	5.000	59.6

008868

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	1/1	1	1/1	17700.000-17700.000	17700.00	12.000	12.000	11900
ANTIMONY	MG/KG	0/1	1	0/1			2.700	2.700	NA
ARSENIC	MG/KG	1/1	1	1/1	9.200-9.200	9.20	12.000	12.000	8.20
BARIUM	MG/KG	1/1	1	0/1	81.300-81.300	81.30	12.000	12.000	95.7
BERYLLIUM	MG/KG	0/1	1	0/1			0.980	0.980	0.6
CADMIUM	MG/KG	1/1	1	1/1	2.200-2.200	2.20	12.000	12.000	0.870
CALCIUM	MG/KG	1/1	1	1/1	5150.000-5150.000	5150.00	12.000	12.000	4340
CHROMIUM	MG/KG	1/1	1	1/1	21.200-21.200	21.20	12.000	12.000	15.5
COBALT	MG/KG	1/1	1	0/1	9.500-9.500	9.50	12.000	12.000	14.2
COPPER	MG/KG	0/1	1	0/1			18.100	18.100	14.1
CYANIDE	MG/KG	0/1	1	0/1			0.310	0.310	0.270
IRON	MG/KG	1/1	1	1/1	26400.000-26400.000	26400.00	12.000	12.000	21700
LEAD	MG/KG	1/1	1	0/1	12.800-12.800	12.80	12.000	12.000	26.4
MAGNESIUM	MG/KG	1/1	1	1/1	3780.000-3780.000	3780.00	12.000	12.000	2780
MANGANESE	MG/KG	1/1	1	0/1	306.000-306.000	306.00	12.000	12.000	1350
MERCURY	MG/KG	1/1	1	1/1	0.480-0.480	0.48	12.000	12.000	0.3
MOLYBDENUM	MG/KG	0/1	1	0/1			4.200	4.200	NA
NICKEL	MG/KG	0/1	1	0/1			17.100	17.100	20.9
POTASSIUM	MG/KG	1/1	1	1/1	1330.000-1330.000	1330.00	12.000	12.000	1230
SELENIUM	MG/KG	0/1	1	0/1			0.340	0.340	0.72
SILICON	MG/KG	0/1	1	0/1			62.000	62.000	1800
SILVER	MG/KG	0/1	1	0/1			0.490	0.490	NA

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000869

5699

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	0/1	1	0/1			43.700	43.700	51.1
THALLIUM	MG/KG	0/1	1	0/1			0.410	0.410	0.58
VANADIUM	MG/KG	1/1	1	1/1	32.000-32.000	32.00	12.000	12.000	30.4
ZINC	MG/KG	1/1	1	1/1	81.600-81.600	81.60	12.000	12.000	59.6

05/24/94

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	6190.000-6190.000	6190.00	6.000	6.000	16100
ARSENIC	MG/KG	1/1	1	0/1	7.200-7.200	7.20	6.000	6.000	9.57
BARIUM	MG/KG	1/1	1	0/1	72.200-72.200	72.20	6.000	6.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	0.750-0.750	0.75	6.000	6.000	0.620
CADMIUM	MG/KG	1/1	1	1/1	5.600-5.600	5.60	6.000	6.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	125000.000-125000.000	125000.00	6.000	6.000	150000
COBALT	MG/KG	1/1	1	0/1	9.900-9.900	9.90	6.000	6.000	15.7
COPPER	MG/KG	1/1	1	1/1	26.400-26.400	26.40	6.000	6.000	20.0
CYANIDE	MG/KG	1/1	1	0/1	0.160-0.160	0.16	6.000	6.000	.17
IRON	MG/KG	1/1	1	0/1	17000.000-17000.000	17000.00	6.000	6.000	30700
LEAD	MG/KG	1/1	1	0/1	7.900-7.900	7.90	6.000	6.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	28900.000-28900.000	28900.00	6.000	6.000	42600
MANGANESE	MG/KG	1/1	1	0/1	446.000-446.000	446.00	6.000	6.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.120	0.120	0.29
MOLYBDENUM	MG/KG	1/1	1	1/1	4.300-4.300	4.30	6.000	6.000	2.7
POTASSIUM	MG/KG	1/1	1	0/1	572.000-572.000	572.00	6.000	6.000	1980
SELENIUM	MG/KG	1/1	1	1/1	0.590-0.590	0.59	6.000	6.000	NA
SILVER	MG/KG	1/1	1	1/1	5.900-5.900	5.90	6.000	6.000	NA
SODIUM	MG/KG	1/1	1	0/1	135.000-135.000	135.00	6.000	6.000	285
THALLIUM	MG/KG	0/1	1	0/1			0.500	0.500	0.49
VANADIUM	MG/KG	1/1	1	0/1	23.600-23.600	23.60	6.000	6.000	37.8
ZINC	MG/KG	1/1	1	0/1	38.900-38.900	38.90	6.000	6.000	82.0

05/24/94

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	2560.000-2560.000	2560.00	6.000	6.000	16100
ARSENIC	MG/KG	1/1	1	0/1	4.600-4.600	4.60	6.000	6.000	9.57
BARIUM	MG/KG	1/1	1	0/1	14.200-14.200	14.20	6.000	6.000	119
BERYLLIUM	MG/KG	0/1	1	0/1			2.100	2.100	0.620
CADMIUM	MG/KG	1/1	1	1/1	7.600-7.600	7.60	6.000	6.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	148000.000-148000.000	148000.00	6.000	6.000	150000
COBALT	MG/KG	0/1	1	0/1			10.600	10.600	15.7
COPPER	MG/KG	1/1	1	1/1	21.800-21.800	21.80	6.000	6.000	20.0
CYANIDE	MG/KG	1/1	1	1/1	0.190-0.190	0.19	6.000	6.000	.17
IRON	MG/KG	1/1	1	0/1	10700.000-10700.000	10700.00	6.000	6.000	30700
LEAD	MG/KG	1/1	1	0/1	6.100-6.100	6.10	6.000	6.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	40100.000-40100.000	40100.00	6.000	6.000	42600
MANGANESE	MG/KG	1/1	1	0/1	366.000-366.000	366.00	6.000	6.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			10.600	10.600	2.7
POTASSIUM	MG/KG	1/1	1	0/1	476.000-476.000	476.00	6.000	6.000	1980
SELENIUM	MG/KG	1/1	1	1/1	0.460-0.460	0.46	6.000	6.000	NA
SILVER	MG/KG	1/1	1	1/1	23.700-23.700	23.70	6.000	6.000	NA
SODIUM	MG/KG	1/1	1	0/1	191.000-191.000	191.00	6.000	6.000	285
THALLIUM	MG/KG	0/1	1	0/1			0.430	0.430	0.49
VANADIUM	MG/KG	1/1	1	0/1	21.300-21.300	21.30	6.000	6.000	37.8
ZINC	MG/KG	1/1	1	0/1	38.500-38.500	38.50	6.000	6.000	82.0

05/24/94

000048

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOFORM	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	

000873

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
STYRENE	UG/KG	0/1	1	0/1			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
TOLUENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			12.000	12.000	

000874

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/1	1	1/1	7.000-7.000	7.00		5.000	5.000
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1				5.000	5.000
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1				5.000	5.000
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1				5.000	5.000
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1				5.000	5.000
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1				5.000	5.000
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1				5.000	5.000
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1				5.000	5.000
2-BUTANONE	UG/KG	0/1	1	0/1				11.000	11.000
2-HEXANONE	UG/KG	0/1	1	0/1				11.000	11.000
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1				11.000	11.000
ACETONE	UG/KG	0/1	1	0/1				39.000	39.000
BENZENE	UG/KG	0/1	1	0/1				5.000	5.000
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1				5.000	5.000
BROMOFORM	UG/KG	0/1	1	0/1				5.000	5.000
BROMOMETHANE	UG/KG	0/1	1	0/1				11.000	11.000
CARBON DISULFIDE	UG/KG	0/1	1	0/1				5.000	5.000
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1				5.000	5.000
CHLOROBENZENE	UG/KG	0/1	1	0/1				5.000	5.000
CHLOROETHANE	UG/KG	0/1	1	0/1				11.000	11.000
CHLOROFORM	UG/KG	0/1	1	0/1				5.000	5.000
CHLOROMETHANE	UG/KG	0/1	1	0/1				11.000	11.000

000875

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			5.000	5.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			5.000	5.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			10.000	10.000	
STYRENE	UG/KG	0/1	1	0/1			5.000	5.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			5.000	5.000	
TOLUENE	UG/KG	0/1	1	0/1			5.000	5.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			5.000	5.000	
TRICHLOROETHENE	UG/KG	1/1	1	1/1	5.000-5.000	5.00	5.000	5.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			5.000	5.000	

000846

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			120.000	120.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOFORM	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	

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000877

5699

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
METHYLENE CHLORIDE	UG/KG	1/1	1	1/1	6.000-6.000	6.00	12.000	12.000	
STYRENE	UG/KG	0/1	1	0/1			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
TOLUENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			12.000	12.000	

008278

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/1	1	1/1	200.000-200.000	200.00	6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	1/1	1	1/1	14.000-14.000	14.00	6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	1/1	1	1/1	5.000-5.000	5.00	6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			13.000	13.000	
2-HEXANONE	UG/KG	0/1	1	0/1			13.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			13.000	13.000	
ACETONE	UG/KG	0/1	1	0/1			53.000	53.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			13.000	13.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			13.000	13.000	
CHLOROFORM	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			13.000	13.000	

000879

5699

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			13.000	13.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	1/1	1	1/1	7.000-7.000	7.00	6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			13.000	13.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			13.000	13.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

000880

05/24/94

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/1	1	1/1	36.000-36.000	36.00	6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			41.000	41.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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000881

5999

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			20.000	20.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	1/1	1	1/1	2.000-2.000	2.00	6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

000882

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			980.000	980.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			390.000	390.000	
3-NITROANILINE	NONE	0/1	1	0/1			980.000	980.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			980.000	980.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			980.000	980.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
CARBAZOLE	UG/KG	0/1	1	0/1			390.000	390.000	
CHRYSENE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			390.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			390.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
ISOPHORONE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
NITROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			390.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			390.000	390.000	
PHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			18000.000	18000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			18000.000	18000.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			18000.000	18000.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			7400.000	7400.000	
3-NITROANILINE	NONE	0/1	1	0/1			18000.000	18000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			18000.000	18000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			3700.000	3700.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			3700.000	3700.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			18000.000	18000.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			18000.000	18000.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
ANTHRACENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			18000.000	18000.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			3700.000	3700.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			3700.000	3700.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			3700.000	3700.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	1700.000-1700.000	1700.00	5.000	5.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			3700.000	3700.000	
CHRYSENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			3700.000	3700.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			3700.000	3700.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value*
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			3700.000	3700.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			3700.000	3700.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			3700.000	3700.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
FLUORENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			3700.000	3700.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
ISOPHORONE	UG/KG	0/1	1	0/1			3700.000	3700.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			3700.000	3700.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			3700.000	3700.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
NITROBENZENE	UG/KG	0/1	1	0/1			3700.000	3700.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			3700.000	3700.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			18000.000	18000.000	
PHENOL	UG/KG	0/1	1	0/1			3700.000	3700.000	
PYRENE	UG/KG	0/1	1	0/1			3700.000	3700.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			410.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1000.000	1000.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			410.000	410.000	
3-NITROANILINE	NONE	0/1	1	0/1			1000.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1000.000	1000.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			410.000	410.000	
ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1000.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			410.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
CARBAZOLE	UG/KG	0/1	1	0/1			410.000	410.000	
CHRYSENE	UG/KG	0/1	1	0/1			410.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			410.000	410.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			410.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			410.000	410.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			410.000	410.000	
FLUORENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			410.000	410.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			410.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	
ISOPHORONE	UG/KG	0/1	1	0/1			410.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			410.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			410.000	410.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			410.000	410.000	
NITROBENZENE	UG/KG	0/1	1	0/1			410.000	410.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			410.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			1000.000	1000.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			410.000	410.000	
PHENOL	UG/KG	0/1	1	0/1			410.000	410.000	
PYRENE	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			430.000	2100.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			430.000	2100.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			430.000	2100.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			430.000	2100.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			2100.000	10000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			2100.000	10000.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			430.000	2100.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			430.000	2100.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			430.000	2100.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			430.000	2100.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			2100.000	10000.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			860.000	4300.000	
3-NITROANILINE	NONE	0/1	1	0/1			2100.000	10000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			2100.000	10000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			430.000	2100.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	

05/24/94

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			430.000	2100.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			2100.000	10000.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			2100.000	10000.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			430.000	2100.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			430.000	2100.000	
ANTHRACENE	UG/KG	0/1	1	0/1			430.000	2100.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			430.000	2100.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			430.000	2100.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			430.000	2100.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			430.000	2100.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			430.000	2100.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			430.000	2100.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			430.000	2100.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			430.000	2100.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			430.000	2100.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	9100.000-9100.000	9100.00	6.000	6.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			430.000	2100.000	
CHRYSENE	UG/KG	0/1	1	0/1			430.000	2100.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			430.000	2100.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			430.000	2100.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			430.000	2100.000	

05/24/94

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DIBENZOFURAN	UG/KG	0/1	1	0/1			430.000	2100.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			430.000	2100.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			430.000	2100.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			430.000	2100.000	
FLUORENE	UG/KG	0/1	1	0/1			430.000	2100.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			430.000	2100.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			430.000	2100.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			430.000	2100.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			430.000	2100.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			430.000	2100.000	
ISOPHORONE	UG/KG	0/1	1	0/1			430.000	2100.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			430.000	2100.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			430.000	2100.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			430.000	2100.000	
NITROBENZENE	UG/KG	0/1	1	0/1			430.000	2100.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			430.000	2100.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			2100.000	10000.000	
PHENOL	UG/KG	0/1	1	0/1			430.000	2100.000	
PYRENE	UG/KG	0/1	1	0/1			430.000	2100.000	

AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.900	3.900	
4,4'-DDE	UG/KG	0/1	1	0/1			3.900	3.900	
4,4'-DDT	UG/KG	0/1	1	0/1			3.900	3.900	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			79.000	79.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1254	UG/KG	1/1	1	1/1	230.000-230.000	230.00	12.000	12.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			39.000	39.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			3.900	3.900	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.900	3.900	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.900	3.900	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.000	2.000	
ENDRIN	UG/KG	0/1	1	0/1			3.900	3.900	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.900	3.900	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.900	3.900	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			18.000	18.000	
4,4'-DDE	UG/KG	0/1	1	0/1			18.000	18.000	
4,4'-DDT	UG/KG	0/1	1	0/1			18.000	18.000	
ALDRIN	UG/KG	0/1	1	0/1			9.000	9.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			9.000	9.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			90.000	90.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			90.000	90.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			90.000	90.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			90.000	90.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			90.000	90.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			90.000	90.000	
AROCLOR-1254	UG/KG	1/1	1	1/1	33.000-33.000	33.00	5.000	5.000	
AROCLOR-1260	UG/KG	1/1	1	1/1	140.000-140.000	140.00	5.000	5.000	
BETA-BHC	UG/KG	0/1	1	0/1			9.000	9.000	
DELTA-BHC	UG/KG	0/1	1	0/1			9.000	9.000	
DIELDRIN	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			9.000	9.000	
ENDRIN	UG/KG	0/1	1	0/1			18.000	18.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			18.000	18.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			9.000	9.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			90.000	90.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			9.000	9.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			9.000	9.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			90.000	90.000	
TOXAPHENE	UG/KG	0/1	1	0/1			180.000	180.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			4.000	4.000	
4,4'-DDE	UG/KG	0/1	1	0/1			4.000	4.000	
4,4'-DDT	UG/KG	0/1	1	0/1			4.000	4.000	
ALDRIN	UG/KG	0/1	1	0/1			2.100	2.100	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.100	2.100	
AROCLOR-1016	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			82.000	82.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			40.000	40.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
DELTA-BHC	UG/KG	0/1	1	0/1			2.100	2.100	
DIELDRIN	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.100	2.100	
ENDRIN	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			4.000	4.000	

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AREA: Tank Farm and Boiler House Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.100	2.100	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.100	2.100	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.100	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.100	2.100	
METHOXYCHLOR	UG/KG	0/1	1	0/1			21.000	21.000	
TOXAPHENE	UG/KG	0/1	1	0/1			210.000	210.000	

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			42.000	42.000	
4,4'-DDE	UG/KG	0/1	1	0/1			42.000	42.000	
4,4'-DDT	UG/KG	0/1	1	0/1			42.000	42.000	
ALDRIN	UG/KG	0/1	1	0/1			21.000	21.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			21.000	21.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			210.000	210.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			210.000	210.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			210.000	210.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			210.000	210.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			210.000	210.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			210.000	210.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			420.000	420.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			420.000	420.000	
BETA-BHC	UG/KG	0/1	1	0/1			21.000	21.000	
DELTA-BHC	UG/KG	0/1	1	0/1			21.000	21.000	
DIELDRIN	UG/KG	0/1	1	0/1			42.000	42.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			42.000	42.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			42.000	42.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			21.000	21.000	
ENDRIN	UG/KG	0/1	1	0/1			42.000	42.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			42.000	42.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			21.000	21.000	

AREA: Tank Farm and Boiler House Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			210.000	210.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			21.000	21.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			21.000	21.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			210.000	210.000	
TOXAPHENE	UG/KG	0/1	1	0/1			420.000	420.000	

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D.2.14 D&D BUILDING AND DRUM BALING AREA

The D&D building and drum baling area covers an approximate 300- by 1000-foot rectangle in the eastern third of the northeast production area, as shown in Figure D.2-18. The drum baling area encompasses the northern half of the area and was also used for scrap equipment and contaminated vehicle storage. The scrap metal pile is located to the west of this area. The D&D building is located in the southern half and is surrounded by open area. Table D-1 summarizes parameters known to be present or used in this area. No removal actions have been associated with this area to date. However, prior to construction of the D&D building, contaminated soil with a level of total uranium greater than 35 pCi/g was removed from the area now occupied by the building to conform to the FEMP "build over" criteria.

Sampling in the area has been performed in phases, beginning in 1988 with the site-wide RI/FS program. Other sampling programs for this area were performed in 1989, 1990, and 1992. A limited sampling program completed the investigations in 1993.

Surface Soil

Surface sample locations are shown in Figure D.2-18. Selected samples were tested, based on the requirements of the program under which they were obtained. Test results for all investigations in the area were combined for this discussion. Test results were compared to the 95th percentile background values (background) for each radionuclide and inorganic constituent and to the detection limit for volatile and semivolatile organics, PCBs, and pesticides. Table D.2-14 presents the distribution of constituents with respect to these comparison levels by depth interval. Isoconcentration maps showing the lateral extent of the various constituents are presented in the Plates.

Testing of the samples focused almost exclusively on radionuclide levels, particularly uranium and thorium. Levels of total uranium and total thorium, uranium and thorium isotopes, and strontium-90 greater than five times background were detected in the 0-0.5 foot interval throughout the drum baling area. The maximum results are 1637 mg/kg, 125 mg/kg, and 6.16 pCi/g for total uranium, total thorium, and strontium-90, respectively. Total uranium and uranium isotopes were also detected at levels at least five times background below 0.5 feet. Thorium isotopes were typically detected at levels above background below 0.5 feet. Other radionuclides were detected, but generally at levels less than background. Technetium-99 was detected throughout the surface sampling zone, but no

background level was recorded for comparison. The same pattern of detection was found in the southern portion of the area.

Analyses for inorganics, volatile and semivolatile organics, pesticides, and PCBs was performed on samples from three locations in the northern third of the area (SMA-3 through SMA-5). Calcium, copper, lead, and magnesium were detected at levels at least five times background in the 0.0- to 0.5-foot interval. Beryllium, cadmium, nickel, sodium, and zinc were detected at levels above twice background. Arsenic, barium, chromium, cyanide, iron, manganese, and potassium were also detected at levels above background, but less than twice that level. Molybdenum, silver, and thallium were detected, but no background levels were recorded.

Samples used in the analyses for organics, pesticides, and PCBs were recovered from the 0- to 0.5-foot interval in the northern third of the area. No other sample intervals were tested. There were no detections of volatile organics in the 0- to 0.5- foot interval.

The following semivolatile organics, primarily PAHs, were detected in as many as 75 percent of the samples tested in the 0.0- to 0.5-foot interval.

Acenaphthylene	Anthracene
Benzo(a)anthracene	Benzo(a)pyrene
Benzo(b)fluoranthene	Benzo(g,h,i)perylene
Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate
Dibenzo(a,h)anthracene	Di-n-butyl phthalate
Ideno(1,2,3-cd)pyrene	Fluoranthene
Pyrene	Phenanthrene
Tributyl phosphate	

In addition, PCBs, particularly Aroclor-1254, were detected in the 0.0- to 0.5-foot sampling interval in concentrations ranging from 0.71 to 6.2 ppm.

Subsurface Soil

Subsurface sampling locations were typically those designated by four digit numbers (1781), as shown in Figure D.2-18. Total uranium was the only radionuclide for which analysis was performed in every interval of the subsurface soil reported here. Detected levels were greater than five times background through the 10.0- to 15.0-foot depth interval. The level of total uranium detected in the 15.0- to 20.0-foot interval was greater than background. Analyses were performed for other

radionuclides in the 1.5- to 3.0-foot and 5.0- to 10-foot intervals. Uranium-238 and uranium 234 were detected at levels greater than twice background in the 1.5- to 3.0-foot interval. Thorium-228 was detected above background. Total thorium, thorium isotopes, and strontium-90 were detected at levels greater than twice background in the 5.0- to 10.0-foot interval.

One sample from the 1.5- to 3.0-foot interval was analyzed for organics, pesticides, and PCBs. Acetone and methylene chloride were the only volatile organics detected. These are two common laboratory contaminants and potentially may not be of concern. No semivolatile organics, pesticides, or PCBs were detected in the one subsurface sample tested.

Conclusions

Uranium and thorium isotopes are the primary radionuclides at high contaminant levels in surface and subsurface soils at the D&D building and drum baling area. Total uranium concentrations at levels greater than five times background were present to depths of 15 feet. Only a limited number of inorganics, organics, and PCBs were detected in the surface soil sampling interval.

Sources of contamination in this area result either from airborne deposition or from surface spills. Radionuclides and inorganics are potentially transported by air. Inorganics are typical of those associated with used drums and the adjacent scrap metal pile. The volatile and semivolatile organics, PCBs, and pesticides assumedly resulted from spills and leaks from drums.

TABLE D.2-14
DRUM BALING AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	55	■	■	■	■	■	■	■	■	■	■	-	-	-	■	X	-	●
0.5 - 1	4	■	■	■	●	●	■	●	●	●	●	-	-	-	●	X	-	-
1 - 1.5	7	■	■	■	■	■	■	●	●	○	●	-	-	-	■	X	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	4	●	■	●	○		-	○	●		●	-	-					
3 - 5	2		■						-									
5 - 10	3		■		●			●	●		●	-	-	-	●			
10 - 15	7		■						-									
15 - 20	4		●						-									

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	3	○		●	●	●	●	■	●	○	■	●	●	■	■	●	○	X	●	●	○	○	X	●	-	○	●
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	2	○	-	●	●	○	●	○	○	○	●	-	○	○	○	○	○		○	○	-		-	○	-	○	○
3 - 5	0																										
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-14
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)							SEMIVOLATILES (ug/kg)																PESTICIDES/PCBs (ug/kg)										
	Number of Samples	Acetone	Methylene chloride					Number of Samples	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-butyl phthalate	Dibenzo(a,h)anthracene	Fluoranthene	Ideno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Tributyl Phosphate	Number of Samples	Aroclor-1254									
Surface Soil:																																		
0 - 0.5	3	-	-					3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3	X									
0.5 - 1	0							0																	0										
1 - 1.5	0							0																	0										
Subsurface Soil:																																		
1.5 - 3	1	X	X					1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-									
3 - 5	0							0																	0										
5 - 10	0							0																	0										
10 - 15	0							0																	0										
15 - 20	0							0																	0										

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

C00907

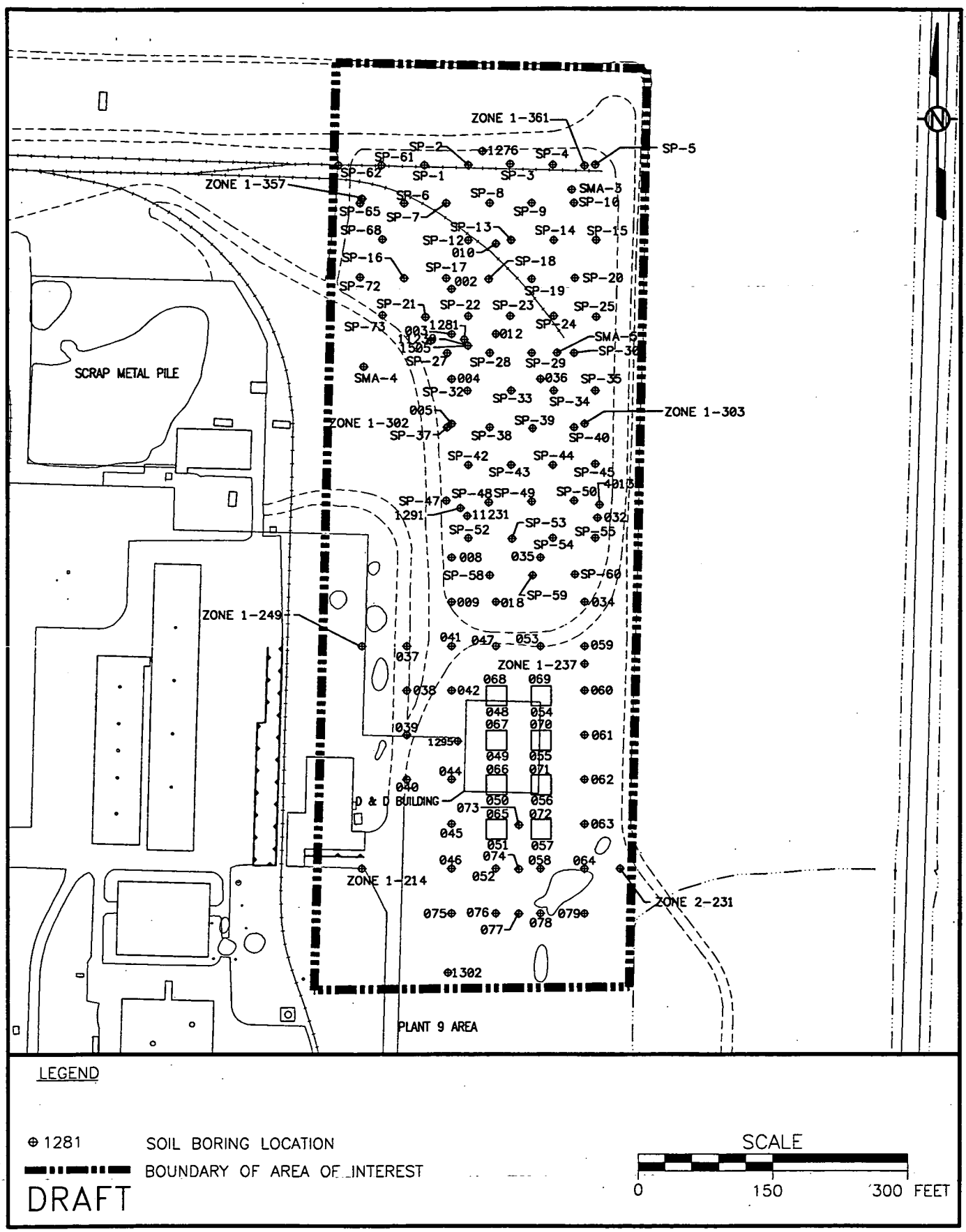

FIGURE D.2-18. D & D BUILDING AND DRUM BALING AREA

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D&D Building and Drum Baling Area

Summary Soil Statistics

AREA: D&D Building and Drum Baling Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	98/100	0	98/100	3.000-1300.000	120.58	3.700	3.700	1.24
URANIUM, TOTAL	MG/KG	103/105	0	103/105	8.000-3890.000	441.85	11.000	11.000	3.73
URANIUM-234	PCI/G	97/100	0	97/100	2.800-1300.000	119.15	3.900	19.000	1.24
THORIUM-230	PCI/G	104/104	0	74/104	0.920-120.000	18.86	12.000	12.000	1.97
RADIUM-226	PCI/G	7/7	0	4/7	0.900-9.580	3.55	12.000	12.000	1.42
URANIUM-235/236	PCI/G	99/100	0	99/100	0.170-59.000	5.32	0.600	0.600	0.156
THORIUM-232	PCI/G	103/104	0	71/104	0.250-38.000	3.82	0.320	0.320	1.36
THORIUM, TOTAL	MG/KG	58/110	0	56/110	9.120-152.000	35.57	18.000	45.000	12.4
RADIUM-228	PCI/G	7/7	0	5/7	0.700-24.800	5.70	12.000	12.000	1.25
THORIUM-228	PCI/G	103/104	0	61/104	0.390-40.000	3.97	0.590	0.590	1.43
NEPTUNIUM-237	PCI/G	0/12	0	0/12			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/10	10	0/10			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/10	10	0/10			0.600	0.600	NA
STRONTIUM-90	PCI/G	5/13	0	5/13	0.600-6.160	2.37	0.500	2.000	0.424
TECHNETIUM-99	PCI/G	3/11	0	3/11	1.200-2.860	1.85	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/7	0	0/7			1.000	1.700	NA
CESIUM-137	PCI/G	4/7	0	1/7	0.300-0.770	0.51	0.200	0.200	0.711
GROSS ALPHA	PCI/G	162/181	0	162/181	10.000-1900.000	210.70	9.300	28.000	
GROSS BETA	PCI/G	156/177	0	156/177	18.000-2000.000	204.51	16.000	40.000	
URANIUM-236	PCI/G	70/89	0	65/89	0.051-5.000	0.45	0.048	2.500	0.088

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AREA: D&D Building and Drum Baling Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	10/10	0	10/10	9.000-500.000	98.15	0.600	0.600	1.24
URANIUM, TOTAL	MG/KG	14/14	0	14/14	31.000-1780.000	492.73	0.600	0.600	3.73
URANIUM-234	PCI/G	10/10	0	10/10	8.400-468.400	88.95	0.600	0.600	1.24
THORIUM-230	PCI/G	8/10	0	7/10	1.000-6.600	3.79	0.600	0.600	1.97
RADIUM-226	PCI/G	3/3	0	1/3	0.600-2.600	1.50	0.600	0.600	1.42
URANIUM-235/236	PCI/G	9/10	0	9/10	1.100-19.300	5.22	0.600	0.600	0.156
THORIUM-232	PCI/G	8/10	0	5/10	0.600-1.900	1.44	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	10/10	0	5/10	5.472-17.329	11.58	0.600	0.600	12.4
RADIUM-228	PCI/G	3/3	0	1/3	0.700-1.900	1.23	0.600	0.600	1.25
THORIUM-228	PCI/G	10/10	0	5/10	0.600-2.000	1.42	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/5	0	0/5			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/10	0	0/10			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/10	0	0/10			0.600	0.600	NA
STRONTIUM-90	PCI/G	3/5	0	3/5	0.800-2.000	1.33	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	3/5	0	3/5	4.300-5.400	4.73	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	0	0/3			1.000	1.000	NA
CESIUM-137	PCI/G	0/3	0	0/3			0.200	0.200	0.711

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AREA: D&D Building and Drum Baling Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	7/7	0	7/7	7.700-222.700	75.56	0.600	0.600	1.24
URANIUM, TOTAL	MG/KG	34/41	0	34/41	5.200-668.310	66.08	5.000	5.000	3.73
URANIUM-234	PCI/G	7/7	0	7/7	7.100-215.000	71.33	0.600	0.600	1.24
THORIUM-230	PCI/G	7/7	0	5/7	1.000-22.900	5.43	0.600	0.600	1.97
RADIUM-226	PCI/G	6/6	0	1/6	0.700-9.800	2.48	0.600	0.600	1.42
URANIUM-235/236	PCI/G	6/7	0	6/7	0.700-10.000	3.83	0.600	0.600	0.156
THORIUM-232	PCI/G	6/7	0	3/7	0.800-3.100	1.55	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	7/7	0	3/7	5.472-28.273	12.90	0.600	0.600	12.4
RADIUM-228	PCI/G	6/6	0	1/6	0.800-3.500	1.48	0.600	0.600	1.25
THORIUM-228	PCI/G	7/7	0	3/7	0.600-2.800	1.41	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/6	0	0/6			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/6	0	0/6			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/6	0	0/6			0.600	0.600	NA
STRONTIUM-90	PCI/G	4/6	0	4/6	0.900-3.400	1.80	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	2/6	0	2/6	4.700-8.100	6.40	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/6	0	0/6			1.000	1.900	NA
CESIUM-137	PCI/G	0/6	0	0/6			0.200	0.200	0.711

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AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	2.800-2.800	2.80	6.000	6.000	1.12
URANIUM, TOTAL	MG/KG	14/27	0	10/27	1.600-22.000	7.37	5.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	2.500-2.500	2.50	6.000	6.000	1.04
THORIUM-230	PCI/G	1/1	1	0/1	1.500-1.500	1.50	6.000	6.000	1.91
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.900-0.900	0.90	6.000	6.000	1.26
THORIUM, TOTAL	MG/KG	2/6	0	1/6	8.208-18.000	13.10	18.000	23.000	11.1
THORIUM-228	PCI/G	1/1	1	1/1	1.600-1.600	1.60	6.000	6.000	1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA

AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	7/10	0	3/10	1.700-190.000	30.16	5.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/1	0	0/1			23.000	23.000	11.1

AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM, TOTAL	MG/KG	3/8	0	3/8	27.000-265.000	116.27	11.000	11.000	3.69
THORIUM-230	PCI/G	1/1	1	1/1	7.700-7.700	7.70	11.000	11.000	1.91
THORIUM-232	PCI/G	1/1	1	1/1	2.550-2.550	2.55	11.000	11.000	1.26
THORIUM, TOTAL	MG/KG	1/7	0	1/7	23.000-23.000	23.00	18.000	23.000	11.1
THORIUM-228	PCI/G	1/1	1	1/1	2.760-2.760	2.76	11.000	11.000	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	1.420-1.420	1.42	11.000	11.000	.436

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AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	2/7	0	2/7	19.000-174.000	96.50	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/6	0	0/6			18.000	23.000	11.1

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AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	1/4	0	1/4	6.000-6.000	6.00	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/3	0	0/3			23.000	23.000	11.1

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AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	0/1	1	0/1			3.000	3.000	3.69
URANIUM-234	PCI/G	1/2	2	0/2	0.600-0.600	0.60	0.600	0.600	1.04
THORIUM-230	PCI/G	2/2	2	0/2	0.600-0.700	0.65	0.600	0.600	1.91
RADIUM-226	PCI/G	0/1	1	0/1			0.300	0.300	1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.600	0.600	0.150
THORIUM-232	PCI/G	0/2	2	0/2			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	0/2	2	0/2			5.472	5.472	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	0/2	2	0/2			0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: D&D Building and Drum Baling Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	3/3	3	0/3	8670.000-11800.000	10190.00	12.000	12.000	11900
ARSENIC	MG/KG	3/3	3	1/3	4.700-9.500	6.50	12.000	12.000	8.20
BARIUM	MG/KG	3/3	3	1/3	81.300-126.000	98.20	12.000	12.000	95.7
BERYLLIUM	MG/KG	3/3	3	2/3	0.590-1.300	0.85	12.000	12.000	0.6
CADMIUM	MG/KG	1/3	3	1/3	1.800-1.800	1.80	0.950	0.980	0.870
CALCIUM	MG/KG	3/3	3	3/3	71400.000-99100.000	86033.33	12.000	12.000	4340
CHROMIUM	MG/KG	3/3	3	2/3	14.600-21.100	17.93	12.000	12.000	15.5
COBALT	MG/KG	3/3	3	0/3	7.000-9.400	7.97	12.000	12.000	14.2
COPPER	MG/KG	3/3	3	3/3	24.900-695.000	254.77	12.000	12.000	14.1
CYANIDE	MG/KG	1/3	3	1/3	0.320-0.320	0.32	0.120	0.120	0.270
IRON	MG/KG	3/3	3	2/3	20100.000-24100.000	22366.67	12.000	12.000	21700
LEAD	MG/KG	3/3	3	3/3	79.400-162.000	121.47	12.000	12.000	26.4
MAGNESIUM	MG/KG	3/3	3	3/3	14000.000-25800.000	18833.33	12.000	12.000	2780
MANGANESE	MG/KG	3/3	3	1/3	690.000-1500.000	1023.67	12.000	12.000	1350
MERCURY	MG/KG	3/3	3	0/3	0.120-0.230	0.18	12.000	12.000	0.3
MOLYBDENUM	MG/KG	3/3	3	3/3	6.200-6.800	6.47	12.000	12.000	NA
NICKEL	MG/KG	3/3	3	3/3	25.000-52.700	38.03	12.000	12.000	20.9
POTASSIUM	MG/KG	3/3	3	2/3	1180.000-1350.000	1286.67	12.000	12.000	1230
SELENIUM	MG/KG	1/3	3	0/3	0.550-0.550	0.55	0.420	0.480	0.72
SILICON	MG/KG	3/3	3	0/3	671.000-739.000	712.00	12.000	12.000	1800
SILVER	MG/KG	3/3	3	3/3	6.300-7.400	6.77	12.000	12.000	NA
SODIUM	MG/KG	3/3	3	3/3	111.000-240.000	169.00	12.000	12.000	51.1

AREA: D&D Building and Drum Baling Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
THALLIUM	MG/KG	0/3	3	0/3			0.420	0.480	0.58
VANADIUM	MG/KG	3/3	3	0/3	20.100-25.900	22.77	12.000	12.000	30.4
ZINC	MG/KG	3/3	3	2/3	55.400-239.000	134.80	12.000	12.000	59.6

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AREA: D&D Building and Drum Baling Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	2/2	0	0/2	13700.000-13700.000	13700.00	6.000	6.000	16100
ANTIMONY	MG/KG	0/2	0	0/2			6.000	6.000	NA
ARSENIC	MG/KG	2/2	0	2/2	13.500-13.500	13.50	6.000	6.000	9.57
BARIUM	MG/KG	2/2	0	2/2	141.000-141.000	141.00	6.000	6.000	119
BERYLLIUM	MG/KG	2/2	0	0/2	0.600-0.600	0.60	6.000	6.000	0.620
CADMIUM	MG/KG	2/2	0	2/2	1.000-1.000	1.00	6.000	6.000	0.910
CALCIUM	MG/KG	2/2	0	0/2	5490.000-5490.000	5490.00	6.000	6.000	150000
CHROMIUM	MG/KG	2/2	0	0/2	17.000-17.000	17.00	6.000	6.000	20.7
COBALT	MG/KG	2/2	0	0/2	6.000-6.000	6.00	6.000	6.000	15.7
COPPER	MG/KG	2/2	0	2/2	27.000-27.000	27.00	6.000	6.000	20.0
CYANIDE	MG/KG	0/2	0	0/2			0.630	0.630	.17
IRON	MG/KG	2/2	0	0/2	19300.000-19300.000	19300.00	6.000	6.000	30700
LEAD	MG/KG	2/2	0	0/2	7.800-7.800	7.80	6.000	6.000	15.6
MAGNESIUM	MG/KG	2/2	0	0/2	3270.000-3270.000	3270.00	6.000	6.000	42600
MANGANESE	MG/KG	2/2	0	0/2	177.000-177.000	177.00	6.000	6.000	1300
MERCURY	MG/KG	2/2	0	0/2	0.040-0.040	0.04	6.000	6.000	0.29
NICKEL	MG/KG	2/2	0	0/2	17.000-17.000	17.00	6.000	6.000	34.3
POTASSIUM	MG/KG	2/2	0	0/2	654.000-654.000	654.00	6.000	6.000	1980
SELENIUM	MG/KG	0/2	0	0/2			0.500	0.500	NA
SILVER	MG/KG	0/2	0	0/2			1.000	1.000	NA
SODIUM	MG/KG	2/2	0	0/2	284.000-284.000	284.00	6.000	6.000	285
THALLIUM	MG/KG	0/2	0	0/2			0.500	0.500	0.49

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
VANADIUM	MG/KG	2/2	0	0/2	25.000-25.000	25.00	6.000	6.000	37.8
ZINC	MG/KG	2/2	0	0/2	63.000-63.000	63.00	6.000	6.000	82.0

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			12.000	12.000	
2-BUTANONE	UG/KG	0/3	3	0/3			12.000	12.000	
2-HEXANONE	UG/KG	0/3	3	0/3			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/3	3	0/3			12.000	12.000	
ACETONE	UG/KG	0/3	3	0/3			12.000	12.000	
BENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			12.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	

AREA: D&D Building and Drum Baling Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			12.000	12.000	

AREA: D&D Building and Drum Baling Area
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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	0	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	0	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	0	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	0	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	0	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	0	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	0	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	0	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	0	0/1			12.000	12.000	
2-HEXANONE	UG/KG	0/1	0	0/1			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	0	0/1			12.000	12.000	
ACETONE	UG/KG	1/1	0	1/1	26.000-26.000	26.00	6.000	6.000	
BENZENE	UG/KG	0/1	0	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	0	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	0	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	0	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	0	0/1			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	0	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	0	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	0	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	0	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	0	0/1			12.000	12.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	0	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	0	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	0	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	1/1	0	1/1	6.000-6.000	6.00	6.000	6.000	
STYRENE	UG/KG	0/1	0	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	0	0/1			6.000	6.000	
TOLUENE	UG/KG	0/1	0	0/1			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	0	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/1	0	0/1			6.000	6.000	
VINYL ACETATE	UG/KG	0/1	0	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	0	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	0	0/1			6.000	6.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			1900.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			1900.000	2000.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			400.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			400.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			400.000	400.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			400.000	400.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			1900.000	2000.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			790.000	810.000	
3-NITROANILINE	NONE	0/3	3	0/3			1900.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			1900.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			400.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	

AREA: D&D Building and Drum Baling Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			400.000	400.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			1900.000	2000.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			1900.000	2000.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			400.000	400.000	
ACENAPHTHYLENE	UG/KG	1/3	3	1/3	98.000-98.000	98.00	400.000	400.000	
ANTHRACENE	UG/KG	2/3	3	2/3	60.000-88.000	74.00	400.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	3/3	3	3/3	77.000-240.000	138.67	12.000	12.000	
BENZO(A)PYRENE	UG/KG	3/3	3	3/3	110.000-440.000	223.33	12.000	12.000	
BENZO(B)FLUORANTHENE	UG/KG	3/3	3	3/3	100.000-480.000	240.00	12.000	12.000	
BENZO(G,H,I)PERYLENE	UG/KG	3/3	3	3/3	77.000-550.000	235.33	12.000	12.000	
BENZO(K)FLUORANTHENE	UG/KG	3/3	3	3/3	110.000-510.000	243.33	12.000	12.000	
BENZOIC ACID	UG/KG	0/3	3	0/3			1900.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			400.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			400.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			400.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			400.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	3/3	3	3/3	67.000-470.000	269.00	12.000	12.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	400.000	
CHRYSENE	UG/KG	3/3	3	3/3	120.000-410.000	223.33	12.000	12.000	
DI-N-BUTYL PHTHALATE	UG/KG	3/3	3	3/3	64.000-120.000	85.33	12.000	12.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	400.000	

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	1/3	3	1/3	170.000-170.000	170.00	400.000	400.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			400.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	400.000	
FLUORANTHENE	UG/KG	3/3	3	3/3	180.000-450.000	290.00	12.000	12.000	
FLUORENE	UG/KG	0/3	3	0/3			400.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			400.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			400.000	400.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			400.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	3/3	3	3/3	75.000-450.000	200.33	12.000	12.000	
ISOPHORONE	UG/KG	0/3	3	0/3			400.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			400.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			400.000	400.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			400.000	400.000	
NITROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			400.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			1900.000	2000.000	
PHENANTHRENE	UG/KG	3/3	3	3/3	88.000-210.000	149.33	12.000	12.000	
PHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
PYRENE	UG/KG	3/3	3	3/3	150.000-490.000	303.33	12.000	12.000	
TRIBUTYL PHOSPHATE	UG/KG	1/3	3	1/3	220.000-220.000	220.00	400.000	400.000	

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AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	0	0/1			420.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	0	0/1			420.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	0	0/1			420.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	0	0/1			420.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	0	0/1			2100.000	2100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/1	0	0/1			2100.000	2100.000	
2,4-DINITROTOLUENE	UG/KG	0/1	0	0/1			420.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/1	0	0/1			420.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	0	0/1			420.000	420.000	
2-CHLOROPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	0	0/1			420.000	420.000	
2-METHYLPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
2-NITROANILINE	UG/KG	0/1	0	0/1			2100.000	2100.000	
2-NITROPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	0	0/1			850.000	850.000	
3-NITROANILINE	NONE	0/1	0	0/1			2100.000	2100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	0	0/1			2100.000	2100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	0	0/1			420.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	

AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	0	0/1			420.000	420.000	
4-METHYLPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			2100.000	2100.000	
4-NITROPHENOL	UG/KG	0/1	0	0/1			2100.000	2100.000	
ACENAPHTHENE	UG/KG	0/1	0	0/1			420.000	420.000	
ACENAPHTHYLENE	UG/KG	0/1	0	0/1			420.000	420.000	
ANTHRACENE	UG/KG	0/1	0	0/1			420.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	0	0/1			420.000	420.000	
BENZO(A)PYRENE	UG/KG	0/1	0	0/1			420.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	0	0/1			420.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	0	0/1			420.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	0	0/1			420.000	420.000	
BENZOIC ACID	UG/KG	0/1	0	0/1			2100.000	2100.000	
BENZYL ALCOHOL	UG/KG	0/1	0	0/1			420.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	0	0/1			420.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	0	0/1			420.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	0	0/1			420.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	0	0/1			420.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	0	0/1			420.000	420.000	
CHRYSENE	UG/KG	0/1	0	0/1			420.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	0	0/1			420.000	420.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	0	0/1			420.000	420.000	

AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	0	0/1			420.000	420.000	
DIBENZOFURAN	UG/KG	0/1	0	0/1			420.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/1	0	0/1			420.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/1	0	0/1			420.000	420.000	
FLUORANTHENE	UG/KG	0/1	0	0/1			420.000	420.000	
FLUORENE	UG/KG	0/1	0	0/1			420.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/1	0	0/1			420.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	0	0/1			420.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	0	0/1			420.000	420.000	
HEXACHLOROETHANE	UG/KG	0/1	0	0/1			420.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	0	0/1			420.000	420.000	
ISOPHORONE	UG/KG	0/1	0	0/1			420.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	0	0/1			420.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	0	0/1			420.000	420.000	
NAPHTHALENE	UG/KG	0/1	0	0/1			420.000	420.000	
NITROBENZENE	UG/KG	0/1	0	0/1			420.000	420.000	
P-CHLOROANILINE	UG/KG	0/1	0	0/1			420.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
PHENANTHRENE	UG/KG	0/1	0	0/1			2100.000	2100.000	
PHENOL	UG/KG	0/1	0	0/1			420.000	420.000	
PYRENE	UG/KG	0/1	0	0/1			420.000	420.000	

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AREA: D&D Building and Drum Baling Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			56.000	99000.000	
4,4'-DDE	UG/KG	0/3	3	0/3			56.000	99000.000	
4,4'-DDT	UG/KG	0/3	3	0/3			56.000	99000.000	
ALDRIN	UG/KG	0/3	3	0/3			28.000	49000.000	
ALPHA-BHC	UG/KG	0/3	3	0/3			28.000	49000.000	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			280.000	490000.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			280.000	490000.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			280.000	490000.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			280.000	490000.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			280.000	490000.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			280.000	490000.000	
AROCLOR-1254	UG/KG	3/3	3	3/3	710.000-6200.000	3036.67	12.000	12.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			560.000	990000.000	
BETA-BHC	UG/KG	0/3	3	0/3			28.000	49000.000	
DELTA-BHC	UG/KG	0/3	3	0/3			28.000	49000.000	
DIELDRIN	UG/KG	0/3	3	0/3			56.000	99000.000	
ENDOSULFAN II	UG/KG	0/3	3	0/3			56.000	99000.000	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			56.000	99000.000	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			28.000	49000.000	
ENDRIN	UG/KG	0/3	3	0/3			56.000	99000.000	
ENDRIN KETONE	UG/KG	0/3	3	0/3			56.000	99000.000	
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			28.000	49000.000	

000933

AREA: D&D Building and Drum Baling Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			280.000	490000.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			28.000	49000.000	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			28.000	49000.000	
METHOXYCHLOR	UG/KG	0/3	3	0/3			280.000	490000.000	
TOXAPHENE	UG/KG	0/3	3	0/3			560.000	990000.000	

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AREA: D&D Building and Drum Baling Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
AROCLOR-1016	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			200.000	200.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			200.000	200.000	

000935

05/24/94

D.2.15 SCRAP METAL PILE, DECONTAMINATION BUILDING, AND BUILDINGS 64 AND 65 AREA

The scrap metal pile, decontamination building, and Buildings 64 and 65 cover an approximate 300- by 1000-foot rectangle in the central third of the northeast production area, as shown on Figure D.2-19. The northern third of the area is the location of the scrap metal pile and decontamination building . Unsegregated scrap metal and process equipment were stored in an open field. Various processes (acid soaking, caustic soaking, steam, and high pressure water) for tool, vehicle, and equipment decontamination were conducted in the decontamination building. Buildings 64 and 65, used for thorium storage, are located in the southern two thirds of the area. Table D-1 summarizes parameters known to be present or used in this area. Removal Action No. 15, removal and beneficial reuse of low-level radioactive waste scrap metal off site, has been implemented in this area.

Sampling in the area has been performed in phases, beginning in 1988. The major sampling program for this area was performed in 1989 and 1990 with a final program (SMA locations) completed the investigation in 1993.

Surface Soil

Surface sampling in this area was concentrated in the area surrounding the scrap pile and in a widely spaced grid in the southern portion of the area where Building 64 and Building 65 are located. Surface sample locations are shown in Figure D.2-19. Selected samples were tested, based on the requirements of the individual exploration programs under which they were obtained. The test results from all the programs in the area were combined for this discussion. The test results were compared to the 95th percentile background values (background) for each radionuclide and inorganic constituent. Test results were compared to the detection limit for organics, PCBs, and pesticides. Table D.2-15 presents the distribution of constituents with respect to these levels by depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Samples tested for radionuclides showed levels of total uranium and uranium isotopes at levels greater than five times background throughout the surface sampling zone. Total thorium, thorium and radium isotopes, and strontium-90 were detected at levels greater than five times background in the surface interval. Technetium-99 was detected throughout the surface soil sampling zone, but no background level was recorded.

Testing for inorganics, volatile and semivolatile organics, pesticides, and PCBs was performed at two locations, one on the north side and the other on the south side of the scrap metal pile (SMA-1 and SMA-6). Calcium, copper, lead, magnesium, sodium, and zinc were detected at levels greater than five times background in the surface sampling interval.

Cadmium, chromium, and cyanide, at greater than twice background, were also detected in this interval. One sample from the 1.0- to 1.5-foot interval was tested. Calcium was the only inorganic detected in this interval at a level greater than five times background.

Eight volatile organics were detected in the surface sampling interval. These constituents were:

2-Butanone	2-Hexanone
4-Methyl-2-pentanone	Acetone
Ethyl benzene	Styrene
Toluene	Total xylene

Acetone, 2-butanone, and 4-methyl-2-pentanone are common laboratory contaminants. One sample was analyzed from the 1.0- to 1.5-foot interval. Methylene chloride and tetrachloroethene were the only volatiles detected in this interval.

Twenty-eight semivolatile organics (mainly PAHs) and one PCB, Aroclor-1254, (see Table D.2-15) were detected in three of four samples collected from the 0.0- to 0.5-foot interval. High levels of semi-VOCs were present in sample SMA-6. One sample was analyzed from the 1.0- to 1.5-foot interval. Benzo(b)fluoranthene, benzo(k)fluoranthene, and bis(2-ethylhexyl)phthalate were the only semivolatiles detected in that interval. PCBs (Aroclor-1254) were detected at levels of 790 μg/kg and 2300 μg/kg in two 0- to 0.5-foot samples (SMA-1 and SMA-2) collected from the northern portion of the area near the railroad tracks.

Subsurface Soil

Subsurface sampling locations typically coincide with the general location of surface samples in this area, as shown in Figure D.2-19. Testing in the subsurface was primarily performed to assess radionuclide levels.

Total uranium and total thorium levels were tested at nearly all locations, while other radionuclides were tested at no more than three locations. Uranium in all forms, total thorium, radium-228, and

strontium-90 were detected at more than five times background in the 1.5- to 3.0-foot interval. Maximum subsurface levels for total uranium, radium-228, strontium-90, and total thorium were 62 mg/kg, 23.9 pCi/g, 2.5 pCi/g, and 69 mg/kg, respectively. Total uranium and total thorium were greater than five times background in the 3.0- to 5.0-foot interval. Only total uranium was detected at levels twice background below a 5.0-foot depth.

One sample from each of the 1.5- to 3.0 and 3.0- to 5.0-foot intervals was analyzed for inorganics. No contaminant was detected at greater than twice background.

Two samples were analyzed for volatiles and one sample for semivolatiles and pesticides from the 1.5- to 3.0-foot interval. One sample from the 3.0- to 5.0-foot interval was analyzed for organics and pesticides. Only five volatile organic and one semivolatile organic detections were recorded. Almost all the detections were low levels in the sample collected from Boring 11197, where similar compounds were detected in the 1.0- to 1.5 foot interval.

Conclusions

Uranium and thorium isotopes were the primary radionuclides at higher contaminant levels in the surface soils in this area. Total uranium and total thorium were at elevated levels through 5.0-foot depth. Inorganic contamination was basically limited to the surface soil and consistent with the scrap metal stored in the area. Organic contaminants (VOCs and semi-VOCs) were detected mostly in the surface soil with relatively high levels and present only at minor levels in 1.5- to 3.0-foot interval samples collected from south of the scrap metal pile. PCBs, however, were present in the 0- to 0.5-foot samples collected from north of the scrap metal pile near the railroad tracks.

Contamination in this area results from either airborne deposition of contaminants or from surface spills. Radionuclides and inorganics are expected to be transported by air. The volatile and semivolatile organics, PCBs, and pesticides in surface soil assumably originated from spills and leaks of solvents.

TABLE D.2-15
SCRAP METAL PILE
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	NA	0.711
0 - 0.5	16	■	■	■	■	■	■	■	■	■	■	-	-	-	■	X	-	●
0.5 - 1	4	■	■	■	▒	●	■	○	■	●	○	-	-	-	▒	X	-	○
1 - 1.5	5	■	■	■	●	○	■	○	○	■	○	-	-	-	■	X	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	NA	ND
1.5 - 3	3	■	■	■	○	●	■	○	■	■	○	-	-	-	■	-	-	-
3 - 5	3		■		○	○		○	■	-	○						-	-
5 - 10	6		▒			○			●	○							-	-
10 - 15	7		■			○			○	○							-	-
15 - 20	11		▒						○									

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	4	○	-	○	●	●	▒	■	▒	○	■	▒	●	■	■	○	●	X	●	●	-	○	X	■	-	○	■
0.5 - 1	0																										
1 - 1.5	1	●	-	○	●		-	■	●	○	●	-	●	○	●	○	-	-	-	○	-	○	-	-	-	-	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	1	○	-	○	●		-	○	○	●	●	-	●	○	○	●	-	-	-	○	-	○	-	-	-	○	○
3 - 5	1	○	-	○	○		-	●	○	-	-	-	○	○	○	○	-	-	-	●	-	○	X	-	-	-	○
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-15
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)												SEMIVOLATILES (ug/kg)																																	PESTICIDES/PCBs (ug/kg)								
	Number of Samples	1,1,1-Trichloroethane	2-Butanone	2-Hexanone	4-Methyl-2-pentanone	Acetone	Ethyl Benzene	Methylene chloride	Styrene	Tetrachloroethene	Toluene	Total Xylene	Number of Samples	2 Methylnaphthalene	2,4-Dichlorophenol	2,4-Dimethylphenol	4-Methylphenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl Alcohol	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-butyl phthalate	Di-n-octyl phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	Naphthalene	N-Nitrosodiphenylamine	Phenanthrene	Phenol	Pyrene	Tributyl phosphate	Number of Samples	Aroclor-1254							
Surface Soil:																																																								
0 - 0.5	4	-	X	X	X	X	X	-	X	-	X	X	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1	X							
0.5 - 1	0												0																													0								
1 - 1.5	1	-				-	-	X	-	X	-	-	1	-	-	-	-	-	-	-	-	-	X	-	X	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-		1	-							
Subsurface Soil:																																																								
1.5 - 3	2	X	-	-	-	X	-	X	X	X	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-							
3 - 6	1	-				-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-							
6 - 10	0												0																													0								
10 - 15	0												0																													0								
15 - 20	0												0																													0								

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

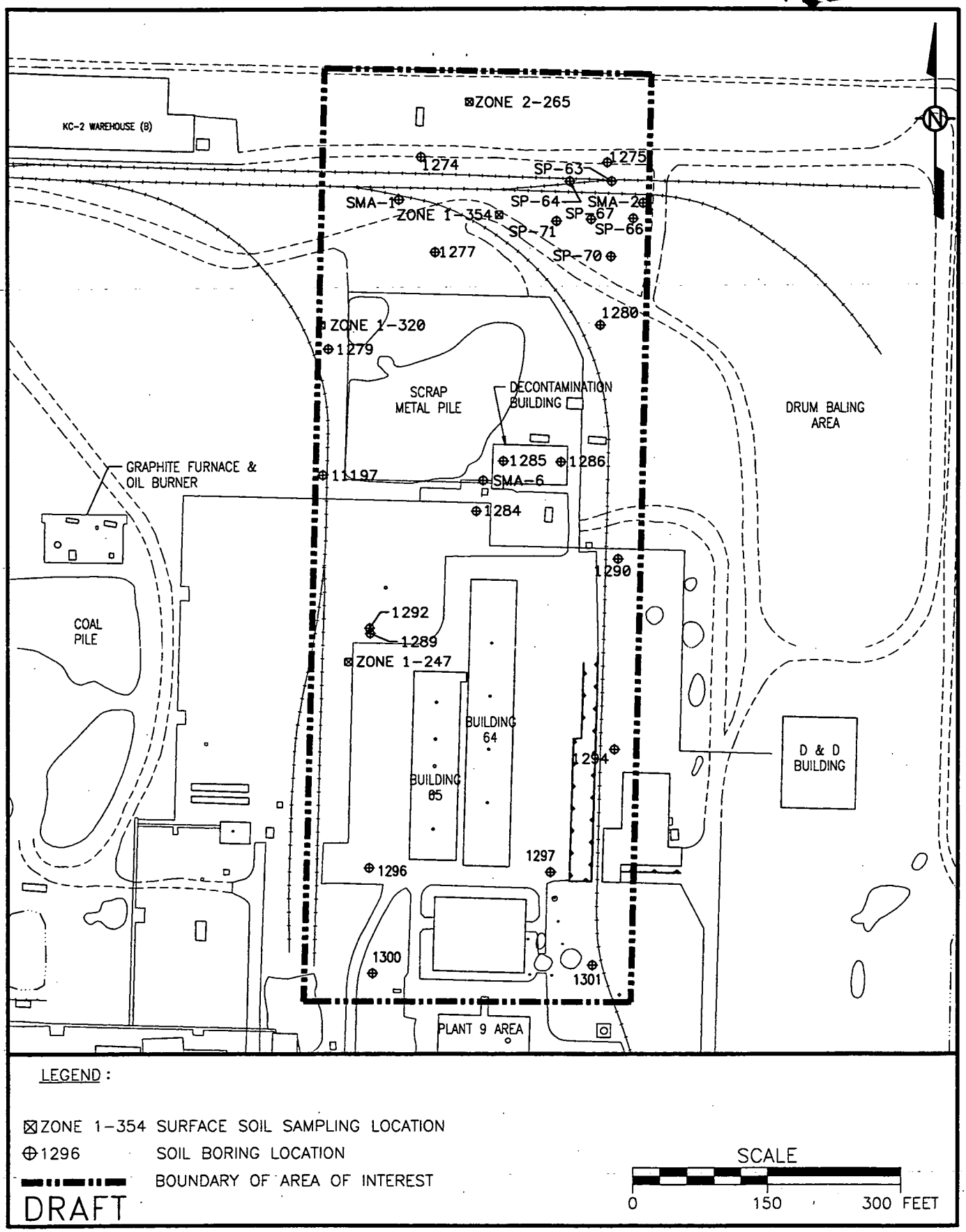

FIGURE D.2-19. SCRAP METAL PILE, DECONTAMINATION BUILDING, AND BUILDING 64 & 65 AREA

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Scrap Metal Pile, Decontamination Building, and Buildings 64 and 65 Area

Summary Soil Statistics

AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	17/19	10	17/19	8.300-7178.000	484.58	3.700	3.700	1.24
URANIUM, TOTAL	MG/KG	26/28	9	26/28	12.000-21423.936	971.76	11.000	11.000	3.73
URANIUM-234	PCI/G	17/19	10	17/19	9.300-7075.000	463.07	3.600	3.600	1.24
THORIUM-230	PCI/G	18/19	9	15/19	0.930-1137.000	83.13			1.97
RADIUM-226	PCI/G	11/13	10	7/13	0.900-2950.000	271.42	0.800	1.070	1.42
URANIUM-235/236	PCI/G	18/19	10	18/19	0.180-69.900	6.90			0.156
THORIUM-232	PCI/G	17/19	9	11/19	0.300-194.000	14.92	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	18/27	3	14/27	8.460-1769.292	126.22	3.100	23.000	12.4
RADIUM-228	PCI/G	11/13	10	9/13	1.190-8.300	3.37	0.500	28.500	1.25
THORIUM-228	PCI/G	17/19	9	12/19	0.220-14.000	4.34	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/12	9	0/12			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/12	9	0/12			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/12	9	0/12			0.600	0.600	NA
STRONTIUM-90	PCI/G	4/12	9	4/12	0.600-2.500	1.37	0.500	2.000	0.424
TECHNETIUM-99	PCI/G	6/12	7	6/12	2.200-5.090	3.92	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/12	9	0/12			1.000	71.000	NA
CESIUM-137	PCI/G	7/12	9	2/12	0.368-1.020	0.66	0.200	7.800	0.711
GROSS ALPHA	PCI/G	12/15	0	12/15	20.000-550.000	225.08	14.000	16.000	
GROSS BETA	PCI/G	11/15	0	11/15	31.000-600.000	251.13	21.000	38.000	
URANIUM-236	PCI/G	4/6	0	4/6	0.140-0.400	0.26	0.140	0.270	0.088

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	3/4	2	3/4	10.200-826.000	286.50			1.24
URANIUM, TOTAL	MG/KG	4/4	3	4/4	30.000-2270.000	603.25			3.73
URANIUM-234	PCI/G	3/4	2	3/4	9.700-684.000	235.73			1.24
THORIUM-230	PCI/G	3/4	2	3/4	4.700-6.600	5.63			1.97
RADIUM-226	PCI/G	3/4	3	1/4	1.100-1.700	1.40	0.600	0.600	1.42
URANIUM-235/236	PCI/G	3/4	2	3/4	0.600-29.300	10.33			0.156
THORIUM-232	PCI/G	3/4	2	0/4	0.900-1.200	1.07			1.36
THORIUM, TOTAL	MG/KG	3/4	0	0/4	8.208-10.944	9.73			12.4
RADIUM-228	PCI/G	4/4	3	2/4	1.200-1.500	1.30			1.25
THORIUM-228	PCI/G	3/4	2	0/4	1.100-1.300	1.20			1.43
NEPTUNIUM-237	PCI/G	0/4	3	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	3	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	3	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/4	3	2/4	1.200-1.300	1.25	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/4	3	1/4	1.100-1.100	1.10	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	3	0/4			1.000	2.400	NA
CESIUM-137	PCI/G	2/4	3	0/4	0.500-0.600	0.55	0.200	0.300	0.711

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	5/6	4	5/6	6.900-468.000	108.36			1.24
URANIUM, TOTAL	MG/KG	9/9	6	9/9	5.730-962.000	154.23			3.73
URANIUM-234	PCI/G	5/6	4	5/6	6.700-442.000	100.90			1.24
THORIUM-230	PCI/G	4/6	3	3/6	1.400-3.900	2.68			1.97
RADIUM-226	PCI/G	5/6	5	0/6	0.400-1.300	1.02	0.400	0.400	1.42
URANIUM-235/236	PCI/G	5/6	4	5/6	0.300-21.500	5.38			0.156
THORIUM-232	PCI/G	4/6	3	0/6	0.700-1.300	1.00			1.36
THORIUM, TOTAL	MG/KG	7/9	1	3/9	6.384-132.000	38.97			12.4
RADIUM-228	PCI/G	5/6	5	2/6	1.000-105.000	22.08	0.500	0.500	1.25
THORIUM-228	PCI/G	4/6	3	0/6	0.600-1.200	0.98			1.43
NEPTUNIUM-237	PCI/G	0/5	4	0/5			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/5	4	0/5			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/5	4	0/5			0.600	0.600	NA
STRONTIUM-90	PCI/G	3/5	4	3/5	0.600-2.200	1.23	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/5	4	1/5	1.100-1.100	1.10	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/5	4	0/5			1.000	2.000	NA
CESIUM-137	PCI/G	0/5	4	0/5			0.200	0.200	0.711

AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	2/3	2	2/3	16.900-20.800	18.85			1.12
URANIUM, TOTAL	MG/KG	4/14	3	4/14	13.000-62.000	35.30	11.000	11.000	3.69
URANIUM-234	PCI/G	2/3	2	2/3	17.900-21.700	19.80			1.04
THORIUM-230	PCI/G	1/3	1	0/3	1.100-1.100	1.10			1.91
RADIUM-226	PCI/G	3/3	3	1/3	0.900-1.700	1.20			1.47
URANIUM-235/236	PCI/G	2/3	2	2/3	1.400-1.700	1.55			0.150
THORIUM-232	PCI/G	1/3	1	0/3	1.200-1.200	1.20			1.26
THORIUM, TOTAL	MG/KG	4/14	1	2/14	6.660-69.000	27.40	23.000	23.000	11.1
RADIUM-228	PCI/G	3/3	3	2/3	0.800-23.900	8.70			1.31
THORIUM-228	PCI/G	1/3	1	0/3	1.200-1.200	1.20			1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/2	2	2/2	1.500-2.500	2.00			.436
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.100	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	5/8	2	5/8	3.800-51.000	21.16	11.000	11.000	3.69
THORIUM-230	PCI/G	1/1	1	0/1	0.600-0.600	0.60			1.91
RADIUM-226	PCI/G	1/3	2	0/3	0.522-0.522	0.52	0.250	0.250	1.47
THORIUM-232	PCI/G	1/1	1	0/1	0.500-0.500	0.50			1.26
THORIUM, TOTAL	MG/KG	5/8	3	1/8	1.650-72.000	17.98	23.000	23.000	11.1
RADIUM-228	PCI/G	0/3	2	0/3			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.500-0.500	0.50			1.38
RUTHENIUM-106	PCI/G	0/2	1	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	1	0/2			0.200	0.200	NA

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM, TOTAL	MG/KG	3/15	3	3/15	4.220-7.710	5.50	11.000	11.000	3.69
RADIUM-226	PCI/G	1/1	1	0/1	0.704-0.704	0.70			1.47
THORIUM, TOTAL	MG/KG	2/15	3	1/15	5.740-12.800	9.27	3.100	23.000	11.1
RADIUM-228	PCI/G	1/1	1	0/1	0.701-0.701	0.70			1.31
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	6/18	3	6/18	4.070-36.000	12.26	11.000	11.000	3.69
RADIUM-226	PCI/G	1/1	1	0/1	0.664-0.664	0.66			1.47
THORIUM, TOTAL	MG/KG	4/18	3	0/18	1.850-10.200	6.44	23.000	23.000	11.1
RADIUM-228	PCI/G	1/1	1	0/1	0.708-0.708	0.71			1.31
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	2/12	1	2/12	4.400-12.000	8.20	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	3/12	3	0/12	5.240-9.050	7.66	23.000	23.000	11.1

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	4/4	4	0/4	3710.000-11400.000	8295.00			11900
ANTIMONY	MG/KG	0/4	1	0/4			2.500	2.500	NA
ARSENIC	MG/KG	4/4	4	0/4	6.200-8.000	6.75			8.20
BARIUM	MG/KG	4/4	4	2/4	80.500-117.000	97.60			95.7
BERYLLIUM	MG/KG	2/4	3	2/4	0.630-0.660	0.65	0.530	0.530	0.6
CADMIUM	MG/KG	1/4	4	1/4	4.200-4.200	4.20	0.970	1.100	0.870
CALCIUM	MG/KG	4/4	4	4/4	11600.000-98500.000	55975.00			4340
CHROMIUM	MG/KG	4/4	4	4/4	18.000-64.000	29.85			15.5
COBALT	MG/KG	4/4	4	0/4	4.200-12.100	7.33			14.2
COPPER	MG/KG	3/4	4	3/4	87.800-207.000	153.93	23.000	23.000	14.1
CYANIDE	MG/KG	3/4	4	1/4	0.140-0.630	0.35	0.290	0.290	0.270
IRON	MG/KG	4/4	4	1/4	10500.000-23400.000	17775.00			21700
LEAD	MG/KG	4/4	4	4/4	51.300-569.000	200.68			26.4
MAGNESIUM	MG/KG	4/4	4	4/4	6510.000-22300.000	13752.50			2780
MANGANESE	MG/KG	4/4	4	0/4	307.000-714.000	519.75			1350
MERCURY	MG/KG	2/4	4	1/4	0.120-0.480	0.30	0.090	0.110	0.3
MOLYBDENUM	MG/KG	3/4	4	3/4	4.600-12.400	7.83	3.900	3.900	NA
NICKEL	MG/KG	3/4	4	2/4	19.300-37.500	29.87	26.000	26.000	20.9
POTASSIUM	MG/KG	4/4	4	2/4	588.000-1260.000	1054.50			1230
SELENIUM	MG/KG	0/4	4	0/4			0.230	0.520	0.72
SILICON	MG/KG	4/4	4	0/4	158.000-871.000	605.25			1800
SILVER	MG/KG	3/4	4	3/4	3.600-6.700	4.93	0.230	0.230	NA

000951

AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	3/4	4	3/4	93.600-2120.000	789.20	57.600	57.600	51.1
THALLIUM	MG/KG	0/4	4	0/4			0.230	0.520	0.58
VANADIUM	MG/KG	4/4	4	0/4	12.500-30.300	22.58			30.4
ZINC	MG/KG	4/4	4	4/4	82.000-764.000	274.00			59.6

000952

AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	1/1	1	1/1	14600.000-14600.000	14600.00			11900
ANTIMONY	MG/KG	0/1	1	0/1			2.500	2.500	NA
ARSENIC	MG/KG	1/1	1	0/1	3.300-3.300	3.30			8.20
BARIUM	MG/KG	1/1	1	1/1	134.000-134.000	134.00			95.7
CADMIUM	MG/KG	0/1	1	0/1			1.200	1.200	0.870
CALCIUM	MG/KG	1/1	1	1/1	102000.000-102000.000	102000.00			4340
CHROMIUM	MG/KG	1/1	1	1/1	18.300-18.300	18.30			15.5
COBALT	MG/KG	1/1	1	0/1	13.900-13.900	13.90			14.2
COPPER	MG/KG	1/1	1	1/1	26.200-26.200	26.20			14.1
CYANIDE	MG/KG	0/1	1	0/1			0.290	0.290	0.270
IRON	MG/KG	1/1	1	1/1	26000.000-26000.000	26000.00			21700
LEAD	MG/KG	1/1	1	0/1	16.600-16.600	16.60			26.4
MAGNESIUM	MG/KG	1/1	1	1/1	4910.000-4910.000	4910.00			2780
MANGANESE	MG/KG	1/1	1	0/1	702.000-702.000	702.00			1350
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.3
MOLYBDENUM	MG/KG	0/1	1	0/1			3.900	3.900	NA
NICKEL	MG/KG	0/1	1	0/1			33.300	33.300	20.9
POTASSIUM	MG/KG	1/1	1	0/1	1050.000-1050.000	1050.00			1230
SELENIUM	MG/KG	0/1	1	0/1			0.230	0.230	0.72
SILICON	MG/KG	1/1	1	0/1	54.400-54.400	54.40			1800
SILVER	MG/KG	0/1	1	0/1			0.230	0.230	NA
SODIUM	MG/KG	0/1	1	0/1			32.200	32.200	51.1

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1 - 1.5 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.230	0.230	0.58
VANADIUM	MG/KG	0/1	1	0/1			28.400	28.400	30.4
ZINC	MG/KG	1/1	1	1/1	61.600-61.600	61.60			59.6

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	13600.000-13600.000	13600.00			16100
ANTIMONY	MG/KG	0/1	1	0/1			2.600	2.600	NA
ARSENIC	MG/KG	1/1	1	0/1	6.600-6.600	6.60			9.57
BARIUM	MG/KG	1/1	1	1/1	185.000-185.000	185.00			119
CADMIUM	MG/KG	0/1	1	0/1			1.200	1.200	0.910
CALCIUM	MG/KG	1/1	1	0/1	8360.000-8360.000	8360.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	20.100-20.100	20.10			20.7
COBALT	MG/KG	1/1	1	1/1	21.800-21.800	21.80			15.7
COPPER	MG/KG	1/1	1	1/1	24.800-24.800	24.80			20.0
CYANIDE	MG/KG	0/1	1	0/1			0.300	0.300	.17
IRON	MG/KG	1/1	1	1/1	34900.000-34900.000	34900.00			30700
LEAD	MG/KG	1/1	1	0/1	13.100-13.100	13.10			15.6
MAGNESIUM	MG/KG	1/1	1	0/1	5160.000-5160.000	5160.00			42600
MANGANESE	MG/KG	1/1	1	1/1	1370.000-1370.000	1370.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.100	0.100	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.000	4.000	2.7
NICKEL	MG/KG	0/1	1	0/1			35.000	35.000	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1460.000-1460.000	1460.00			1980
SELENIUM	MG/KG	0/1	1	0/1			0.240	0.240	NA
SILICON	MG/KG	1/1	1	0/1	125.000-125.000	125.00			1590
SILVER	MG/KG	0/1	1	0/1			0.240	0.240	NA
SODIUM	MG/KG	0/1	1	0/1			75.900	75.900	285

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.240	0.240	0.49
VANADIUM	MG/KG	1/1	1	0/1	31.400-31.400	31.40			37.8
ZINC	MG/KG	1/1	1	0/1	77.800-77.800	77.80			82.0

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	9030.000-9030.000	9030.00			16100
ANTIMONY	MG/KG	0/1	1	0/1			2.500	2.500	NA
ARSENIC	MG/KG	1/1	1	0/1	4.100-4.100	4.10			9.57
BARIUM	MG/KG	1/1	1	0/1	51.900-51.900	51.90			119
CADMIUM	MG/KG	0/1	1	0/1			1.100	1.100	0.910
CALCIUM	MG/KG	1/1	1	1/1	168000.000-168000.000	168000.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	13.500-13.500	13.50			20.7
COBALT	MG/KG	0/1	1	0/1			9.200	9.200	15.7
COPPER	MG/KG	0/1	1	0/1			17.400	17.400	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.290	0.290	.17
IRON	MG/KG	1/1	1	0/1	19500.000-19500.000	19500.00			30700
LEAD	MG/KG	1/1	1	0/1	14.700-14.700	14.70			15.6
MAGNESIUM	MG/KG	1/1	1	0/1	34400.000-34400.000	34400.00			42600
MANGANESE	MG/KG	1/1	1	0/1	427.000-427.000	427.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.070	0.070	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			3.900	3.900	2.7
NICKEL	MG/KG	0/1	1	0/1			19.400	19.400	34.3
POTASSIUM	MG/KG	1/1	1	1/1	2250.000-2250.000	2250.00			1980
SELENIUM	MG/KG	0/1	1	0/1			0.230	0.230	NA
SILICON	MG/KG	1/1	1	0/1	135.000-135.000	135.00			1590
SILVER	MG/KG	1/1	1	1/1	0.410-0.410	0.41			NA
SODIUM	MG/KG	0/1	1	0/1			127.000	127.000	285

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.230	0.230	0.49
VANADIUM	MG/KG	0/1	1	0/1			28.700	28.700	37.8
ZINC	MG/KG	1/1	1	0/1	37.100-37.100	37.10			82.0

AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	82.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			11.000	82.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	82.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	16.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	16.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	16.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			11.000	16.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			11.000	82.000	
2-BUTANONE	UG/KG	1/4	3	1/4	110.000-110.000	110.00	12.000	12.000	
2-HEXANONE	UG/KG	1/4	3	1/4	47.000-47.000	47.00	12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	1/4	3	1/4	30.000-30.000	30.00	12.000	14.000	
ACETONE	UG/KG	1/4	4	1/4	450.000-450.000	450.00	11.000	82.000	
BENZENE	UG/KG	0/4	4	0/4			11.000	82.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	82.000	
BROMOFORM	UG/KG	0/4	4	0/4			11.000	16.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	16.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			11.000	82.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			11.000	82.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			11.000	16.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	16.000	
CHLOROFORM	UG/KG	0/4	4	0/4			11.000	16.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	16.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	82.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	82.000	
ETHYLBENZENE	UG/KG	1/4	4	1/4	290.000-290.000	290.00	11.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			11.000	16.000	
STYRENE	UG/KG	1/4	4	1/4	28.000-28.000	28.00	11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			11.000	82.000	
TOLUENE	UG/KG	2/4	4	2/4	35.000-200.000	117.50	11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	82.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	82.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			11.000	82.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	16.000	
XYLENES, TOTAL	UG/KG	2/4	4	2/4	15.000-980.000	497.50	11.000	12.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOFORM	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	

AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
METHYLENE CHLORIDE	UG/KG	1/1	1	1/1	27.000-27.000	27.00			
STYRENE	UG/KG	0/1	1	0/1			12.000	12.000	
TETRACHLOROETHENE	UG/KG	1/1	1	1/1	1.000-1.000	1.00			
TOLUENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/2	2	1/2	2.000-2.000	2.00	12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			5.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			5.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			5.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			5.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			5.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			5.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			5.000	12.000	
2-BUTANONE	UG/KG	0/2	1	0/2			10.000	10.000	
2-HEXANONE	UG/KG	0/2	1	0/2			10.000	10.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	1	0/2			10.000	10.000	
ACETONE	UG/KG	1/2	2	1/2	170.000-170.000	170.00	10.000	10.000	
BENZENE	UG/KG	0/2	2	0/2			5.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			5.000	12.000	
BROMOFORM	UG/KG	0/2	2	0/2			5.000	12.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			5.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			5.000	12.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			5.000	12.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			5.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			5.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			5.000	12.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			5.000	12.000	
METHYLENE CHLORIDE	UG/KG	1/2	2	1/2	59.000-59.000	59.00	20.000	20.000	
STYRENE	UG/KG	1/2	2	1/2	1.000-1.000	1.00	5.000	5.000	
TETRACHLOROETHENE	UG/KG	1/2	2	1/2	1.000-1.000	1.00	12.000	12.000	
TOLUENE	UG/KG	0/2	2	0/2			5.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			5.000	12.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			5.000	12.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			10.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			10.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			5.000	12.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			23.000	23.000	
BENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
TOLUENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			11.000	11.000	

AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	530.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	530.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	530.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	530.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	3	0/4			950.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	3	0/4			380.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	1/4	3	1/4	100.000-100.000	100.00	380.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	1/4	4	1/4	70.000-70.000	70.00	380.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/4	3	0/4			950.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	530.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			380.000	530.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			380.000	530.000	
2-CHLOROPHENOL	UG/KG	0/4	3	0/4			380.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	2/4	4	2/4	270.000-1700.000	985.00	380.000	400.000	
2-METHYLPHENOL	UG/KG	0/4	3	0/4			380.000	400.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			950.000	2600.000	
2-NITROPHENOL	UG/KG	0/4	3	0/4			380.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	4	0/4			380.000	1100.000	
3-NITROANILINE	NONE	0/4	4	0/4			950.000	2600.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	3	0/4			950.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			380.000	530.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	3	0/4			380.000	400.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			380.000	530.000	
4-METHYLPHENOL	UG/KG	1/4	4	1/4	120.000-120.000	120.00	380.000	400.000	
4-NITROANILINE	UG/KG	0/4	4	0/4			950.000	2600.000	
4-NITROPHENOL	UG/KG	0/4	3	0/4			950.000	1900.000	
ACENAPHTHENE	UG/KG	2/4	4	2/4	280.000-3400.000	1840.00	380.000	400.000	
ACENAPHTHYLENE	UG/KG	2/4	4	2/4	920.000-980.000	950.00	380.000	400.000	
ANTHRACENE	UG/KG	2/4	4	2/4	880.000-11000.000	5940.00	380.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	3/4	4	3/4	85.000-61000.000	21161.67	400.000	400.000	
BENZO(A)PYRENE	UG/KG	3/4	4	3/4	97.000-69000.000	24132.33	400.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	2/4	4	2/4	200.000-3500.000	1850.00	400.000	530.000	
BENZO(G,H,I)PERYLENE	UG/KG	3/4	4	3/4	70.000-48000.000	17156.67	400.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	3/4	4	3/4	210.000-69000.000	24336.67	400.000	400.000	
BENZOIC ACID	UG/KG	0/4	3	0/4			950.000	1900.000	
BENZYL ALCOHOL	UG/KG	1/4	4	1/4	290.000-290.000	290.00	380.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			380.000	530.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			380.000	530.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			380.000	530.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	3/4	4	3/4	96.000-10000.000	4432.00	400.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	530.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	2/3	3	2/3	170.000-3600.000	1885.00	400.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	3/4	4	3/4	49.000-3000.000	1043.33	400.000	400.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	1/4	4	1/4	630.000-630.000	630.00	380.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/4	4	2/4	1200.000-23000.000	12100.00	380.000	400.000	
DIBENZOFURAN	UG/KG	2/4	4	2/4	270.000-3400.000	1835.00	380.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	530.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			380.000	530.000	
FLUORANTHENE	UG/KG	2/3	3	2/3	140.000-5000.000	2570.00	400.000	400.000	
FLUORENE	UG/KG	2/4	4	2/4	280.000-5700.000	2990.00	380.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			380.000	530.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			380.000	530.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			380.000	530.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			380.000	530.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	3/4	4	3/4	110.000-49000.000	17370.00	400.000	400.000	
ISOPHORONE	UG/KG	0/4	4	0/4			380.000	530.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			380.000	530.000	
N-NITROSODIPHENYLAMINE	UG/KG	1/4	4	1/4	680.000-680.000	680.00	380.000	400.000	
NAPHTHALENE	UG/KG	2/4	4	2/4	240.000-1800.000	1020.00	380.000	400.000	
NITROBENZENE	UG/KG	0/4	4	0/4			380.000	530.000	
P-CHLOROANILINE	UG/KG	0/4	4	0/4			380.000	530.000	
PENTACHLOROPHENOL	UG/KG	0/4	3	0/4			950.000	1900.000	
PHENANTHRENE	UG/KG	1/3	3	1/3	3100.000-3100.000	3100.00	380.000	400.000	
PHENOL	UG/KG	2/4	4	2/4	310.000-730.000	520.00	380.000	400.000	
PYRENE	UG/KG	2/3	3	2/3	120.000-4500.000	2310.00	400.000	400.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
TRIBUTYL PHOSPHATE	UG/KG	2/3	3	2/3	72.000-140.000	106.00	400.000	400.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			960.000	960.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			960.000	960.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			960.000	960.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			380.000	380.000	
3-NITROANILINE	NONE	0/1	1	0/1			960.000	960.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			960.000	960.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			960.000	960.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			960.000	960.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	1/1	1	1/1	51.000-51.000	51.00			
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	1/1	1	1/1	36.000-36.000	36.00			
BENZOIC ACID	UG/KG	0/1	1	0/1			960.000	960.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	96.000-96.000	96.00			
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			960.000	960.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			380.000	380.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			990.000	990.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			990.000	990.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			400.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			990.000	990.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			400.000	400.000	
3-NITROANILINE	NONE	0/1	1	0/1			990.000	990.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			990.000	990.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			990.000	990.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			990.000	990.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			400.000	400.000	
ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			400.000	400.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			990.000	990.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	110.000-110.000	110.00			
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
CARBAZOLE	UG/KG	0/1	1	0/1			400.000	400.000	
CHRYSENE	UG/KG	0/1	1	0/1			400.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			400.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
FLUORENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			400.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	
ISOPHORONE	UG/KG	0/1	1	0/1			400.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			400.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			400.000	400.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
NITROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			400.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			990.000	990.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			400.000	400.000	
PHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			950.000	950.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			380.000	380.000	
3-NITROANILINE	NONE	0/1	1	0/1			950.000	950.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			950.000	950.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			950.000	950.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	120.000-120.000	120.00			
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			950.000	950.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/4	4	0/4			3.800	260.000	
4,4'-DDE	UG/KG	0/4	4	0/4			3.800	260.000	
4,4'-DDT	UG/KG	0/4	4	0/4			3.800	260.000	
ALDRIN	UG/KG	0/4	4	0/4			1.900	130.000	
ALPHA-BHC	UG/KG	0/4	4	0/4			1.900	130.000	
ALPHA-CHLORDANE	UG/KG	0/4	4	0/4			1.900	1300.000	
AROCLOR-1016	UG/KG	0/4	4	0/4			38.000	1300.000	
AROCLOR-1221	UG/KG	0/4	4	0/4			76.000	1300.000	
AROCLOR-1232	UG/KG	0/4	4	0/4			38.000	1300.000	
AROCLOR-1242	UG/KG	0/4	4	0/4			38.000	1300.000	
AROCLOR-1248	UG/KG	0/4	4	0/4			38.000	1300.000	
AROCLOR-1254	UG/KG	2/4	4	2/4	790.000-2300.000	1545.00	38.000	2600.000	
AROCLOR-1260	UG/KG	0/4	4	0/4			38.000	2600.000	
BETA-BHC	UG/KG	0/4	4	0/4			1.900	130.000	
DELTA-BHC	UG/KG	0/4	4	0/4			1.900	130.000	
DIELDRIN	UG/KG	0/4	4	0/4			3.800	260.000	
ENDOSULFAN II	UG/KG	0/4	4	0/4			3.800	260.000	
ENDOSULFAN SULFATE	UG/KG	0/4	4	0/4			3.800	260.000	
ENDOSULFAN-I	UG/KG	0/4	4	0/4			1.900	130.000	
ENDRIN	UG/KG	0/4	4	0/4			3.800	260.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/4	4	0/4			3.800	260.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/4	4	0/4			1.900	130.000	
GAMMA-CHLORDANE	UG/KG	0/4	4	0/4			1.900	1300.000	
HEPTACHLOR	UG/KG	0/4	4	0/4			1.900	130.000	
HEPTACHLOR EPOXIDE	UG/KG	0/4	4	0/4			1.900	130.000	
METHOXYCHLOR	UG/KG	0/4	4	0/4			19.000	1300.000	
TOXAPHENE	UG/KG	0/4	4	0/4			190.000	2600.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.800	3.800	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			77.000	77.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			38.000	38.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.000	2.000	
ENDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.800	3.800	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.900	3.900	
4,4'-DDE	UG/KG	0/1	1	0/1			3.900	3.900	
4,4'-DDT	UG/KG	0/1	1	0/1			3.900	3.900	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			80.000	80.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			39.000	39.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			39.000	39.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			3.900	3.900	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.900	3.900	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.900	3.900	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.000	2.000	
ENDRIN	UG/KG	0/1	1	0/1			3.900	3.900	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.900	3.900	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.900	3.900	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

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AREA: Scrap Metal Pile, Decontamination Building, and Buildings 64 & 65
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.800	3.800	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			77.000	77.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			38.000	38.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.000	2.000	
ENDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.800	3.800	

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FEMP SUBSURFACE SOIL DATA, '1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

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D.2.16 GRAPHITE FURNACE, OIL BURNER, AND COAL PILE AREA

The graphite furnace, oil burner, and coal pile area cover an approximate 300- by 1000-foot rectangle in the western third of the northeast production area, as shown in Figure D.2-20. The graphite furnace was used to oxidize scrap graphite molds for uranium recovery. The oil burner, as the name implies, burned contaminated oils and solvents, with the ash drummed for later uranium recovery. No removal actions have been associated with this area to date. Table D-1 summarizes parameters known to be present within this area.

Sampling in the area has been performed in phases, beginning in 1987 with the site-wide RI/FS program. The major sampling program for this area was performed in 1989 and 1990. A program of surface sampling completed the investigations in 1993.

Surface Soil

Surface sampling in the area was concentrated in the immediate vicinity of the graphite furnace and oil burner. The additional sampling locations were based on results from gridded sampling from the early investigation programs. Surface sample locations are shown in Figure D.2-20. Selected samples were tested; based on the requirements of the individual programs under which they were obtained. The test results from all the programs in the area were combined for this discussion. The test results were compared to the 95th percentile background values (background) for each radionuclide and inorganic constituent. Test results were compared to the detection limit for organics, PCBs, and pesticides. Table D.2-16 presents the distribution of constituents with respect to these levels with depth. Isoconcentration maps showing the levels of the constituents are presented in the Plates.

Samples tested for radionuclides at both the immediate vicinity of the graphite furnace and oil burner and at gridded locations over the remainder of the area showed levels of total uranium and uranium isotopes greater than five times background for depths throughout the surface sampling zone, primarily in the northern quarter of the area. Test results indicate the presence of strontium-90 at greater than twice background throughout the surface sampling zone. Total thorium and thorium isotopes were typically detected at levels greater than background throughout the surface sampling zone. Other radionuclides were detected, but at levels less than background.

Testing for inorganics focused on the immediate area around the graphite furnace and oil burner. Barium, cadmium, calcium, cyanide, magnesium, and sodium were detected at levels greater than five times background in the 0- to 0.5-foot interval. From 0.5 to 1.0 feet, arsenic, barium, cadmium, calcium, magnesium, selenium, and sodium were detected at greater than five times background. Calcium and magnesium were the only inorganics detected at five times background in the 1.0- to 1.5-foot interval. Beryllium, chromium, copper, lead, manganese, nickel, potassium, and zinc, at levels greater than twice background, were detected in at least one depth interval. Aluminum, cobalt, iron, mercury, and vanadium were detected throughout the surface zone at levels up to twice background.

The VOCs acetone, methylene chloride, tetrachloroethene, and toluene were detected at intermittent depths within the surface sampling zone around the furnace and burner. Samples used in the analyses were collected primarily from the 0.5- to 1.0-foot interval. Most of the VOCs were detected at relatively low concentrations, less than 100 μg/kg, but frequently present in the surface soil samples (e.g., tetrachloroethene was found in 8 of 14 samples collected from the 0.5- to 1.0-foot interval). The highest concentration of VOC detected was 15,000 μg/kg for tetrachloroethene at a sampling location north of graphite furnace and oil burner.

Eleven semivolatile organics, primarily PAHs, were detected in as many as 50 percent of the samples tested in the 0- to 0.5-foot interval and in about 20 percent of the samples in the 0.5- to 1.0-foot interval. PAHs are products of incomplete combustion. These semivolatiles include the following:

2-Methylnaphthalene	Benzo(a)anthracene
Benzo(b)fluoranthene	Benzo(k)fluoranthene
Bis(2-ethylhexyl)phthalate	Chrysene
Dibenzofuran	Fluoranthene
Naphthalene	Phenanthrene
Pyrene	

Semivolatile, PCB, dioxin, and furan detections were primarily limited to samples from the vicinity of the graphite furnace and oil burner, as well as minor levels of detections in the area of coal pile and runoff basin. PCBs, particularly Aroclor-1254 and Aroclor-1260, were detected in up to 9 surface soil samples primarily collected from areas south and west of the graphite furnace and oil burner. The were detected at a range of 37 μg/kg to 11,000 μg/kg (at Boring 11088). Pesticides, including beta-BHC and Endrin, were detected at relatively low levels (up to 78 μg/kg) in 2 samples collected

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from the surface soil intervals. Dioxins and furans were also detected at low levels (up to 1300 μg/g) in 2 samples collected from the 0.0- to 0.5-foot and 0.5- to 1.0-foot intervals of the surface soil.

Subsurface Soil

Subsurface sampling locations typically coincide with the general location of surface samples in this area, as shown in Figure D.2-20.

Except for total uranium and uranium isotopes, radionuclides were typically detected at levels less than background in the subsurface soil at the locations investigated. Total uranium was detected at greater than five times background throughout the subsurface sampling zone. Uranium isotope activities were detected at greater than five times background in the 1.5- to 3.0-foot interval. The maximum value of total uranium (52 mg/kg) was detected at the 3.0- to 5.0-foot interval. These locations were mostly in the northern half of the area.

Inorganic constituents detected at high levels in the surface samples were also detected at high levels to a 5.0-foot depth in the subsurface. The levels of most inorganics detected in the subsurface are less than the levels in the surface soils and are below twice background. However, detections of cadmium at levels greater than five times background occurred to depths of at least 15 feet. One detection of aluminum at the 3.0- to 5.0-foot interval and one detection of cyanide in the 10.0- to 15.0-foot interval were also greater than five times background. Silver and selenium were detected in the subsurface soil, but no background values were recorded for these constituents.

Subsurface detections of volatile and semivolatile organics and pesticides were limited to the northwest quadrant of the area. Volatile organics were detected in most of the samples tested in the 1.5- to 3.0-foot and 3.0- to 5.0-foot intervals of subsurface soil. Major VOCs in these intervals:

1,1-Dichloroethane	1,1,1-Trichloroethane
1,1-Dichloroethene	1,2-Dichloroethene
Carbon disulfide	Trichloroethene
Tetrachloroethene	

Concentrations of the above-mentioned major VOCs ranged from 1 μg/kg to 6600 μg/kg. Most of the highly elevated VOCs were found in boring locations north of graphite furnace and oil burner. Below 5 feet, only a few samples were detected with relatively low levels (1 ug/kg to 89 μg/kg) of

000990

VOCs, including 1,1-dichloroethane, 1,2-dichloroethene, methylene chloride, toluene, 4-methyl-2-pentanone, acetone, and carbon disulfide. These VOCs are common laboratory contaminant and potentially may not be of concern.

About half of the semivolatile organics detected in the surface sampling zone were detected in 8 of 16 samples collected from the 1.5- to 3.0-foot interval of the subsurface. All detections of the semivolatile organics, except bis(2-ethylhexyl)phthalate, were reported at levels below 400 μg/kg. The detected semivolatile organics include:

2-Methylnaphthalene	Benzo(a)anthracene
Bis(2-ethylhexyl)phthalate	Fluoranthene
Phenanthrene	Pyrene

Bis(2-ethylhexyl)phthalate and 2-methylnaphthalene were the only contaminants detected in the 3.0- to 5.0-foot interval, and bis(2-ethylhexyl)phthalate was the only detected semivolatile in the 5.0- to 10.0-foot interval. Bis(2-ethylhexyl)phthalate was detected in 5 of 13 samples and 1 of 4 samples, respectively, in the 3.0- to 5.0-foot and 5.0- to 10.0-foot intervals at levels in a range of 94 μg/kg to 6000 μg/kg. A low level (55 μg/kg) of 2-methylnaphthalene was detected in one of 13 samples collected. No detections of semivolatile organics were reported in the one sample tested from the 10.0- to 15.0-foot interval. PCBs, including Aroclor-1248, Aroclor-1254, and Aroclor-1260 were detected in 2 of 17 samples collected in the subsurface soil depth intervals from 1.5 to 10.0 feet. The maximum detection of Endrin aldehyde was detected at 5.0 μg/kg in the 1.5- to 3.0-foot interval.

Conclusions

The highest levels of radiological and chemical contamination in the area is the surface soil in the vicinity of the graphite furnace and oil boiler. However, activities of uranium isotopes were detected in most of the surface and subsurface (to a depth of 10 feet) soils samples at levels exceeding five times background throughout the top 3 feet of soil. Total uranium was also detected at levels exceeding five times background throughout the surface and subsurface soil depth intervals. A number of inorganics (arsenic, barium, cadmium, calcium, cyanide, magnesium, selenium, and sodium) were present at concentrations exceeding five times background in samples of one or more of the surface soil depth intervals collected primarily from the immediate area around the graphite furnace and oil burner. Most inorganics that were detected in the surface soil were also detected in the subsurface soil, but mainly to a depth of 5.0 feet and at reduced levels. The exception was

cadmium, which was detected at levels exceeding five times background to a depth of 15 feet below ground surface.

Various volatile and semivolatile organics were detected in the top 5 feet of soil. Except for 1,1,1-trichloromethane, carbon disulfide, and tetrachloroethane, most VOCs were detected at relatively low levels in the samples. Semivolatile organics were also present at levels less than 1000 μg/kg, except for bis(2-ethylhexyl)phthalate and 2-methylnaphthalene. The majority of volatile and semivolatile organic contamination is present in the immediate area of the graphite furnace and oil burner. In addition, detection of PCBs/pesticides, dioxins, and furans were relatively low level and primarily in the surface soil samples collected from the graphite furnace and oil burner area.

The minor levels of inorganic and semivolatile organic contaminants that were observed in samples (Borings 1293 and 1417 and PA-SS-09) from the area surrounding the coal pile and runoff basin may be related to the surface runoff, as evidenced in the sediment sample in (Boring 11198) the runoff basin.

TABLE D.2-16
GRAPHITE FURNACE & OIL BURNER
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.26	1.43	NA	NA	NA	0.424	ND	NA	0.711
0 - 0.5	16	■	■	■		●	■	●	◎	●	●	-	-	-	●	X	-	○
0.5 - 1	4	■	■	■	◎	●	■	●	●	●	●	-	-	-	■	X	-	○
1 - 1.5	5	■	■	■	●	○	■	●	●	○	●	-	X	-	◎	-	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	5	■	■	■	○	○	■	○	○	○	○		-	-	-	X		-
3 - 5	3	●	■	○	○	○	-	●	◎	-	○		-	-	-	-		-
5 - 10	5	◎	■	●	○	○	-	○	○	○	○							
10 - 15	14		■						●									
15 - 20	11		■						○									

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	16.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.68	30.4	59.6
0 - 0.5	9	●	-	●	■	◎	■	■	◎	●	◎	■	●	◎	■	○	○	X	●	◎	●	○	X	■	○	●	◎
0.5 - 1	14	●	-	■	■	◎	■	■	●	●	◎	●	●	●	■	○	●	X	◎	●	■		X	■	○	●	◎
1 - 1.5	6	●	-	●	◎	-	◎	■	●	●	◎	-	●	○	■	◎	-	-	●	●	◎	○	-	◎	○	●	●
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	286	0.49	37.8	82
1.5 - 3	14	○	-	●	●	◎	■	●	◎	●	◎	◎	●	●	○	◎	-	◎	●	○	X	○	X	○	-	○	●
3 - 5	12	■	-	●	●	◎	■	○	●	●	●	●	◎	●	○	●	-	●	●	○	X	○	X	○	○	○	◎
5 - 10	4	○	-	○	○	◎	■	○	○	○	●	◎	○	○	○	○	-	●	○	●	X	○	X	○	-	○	○
10 - 15	1	○		○	○	●	■	○	○	○	○	■	○	○	○	○	-	●	○	○	-		X	○	-	○	○
15 - 20																											

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

◎ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

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TABLE D.2-16
(Continued)

	VOLATILES (ug/kg)																							DIOXINS/FURANS								
Depth Interval, Feet	Number of Samples	1,1,-Dichloroethene	1,1,-Dichloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	2-Butanone	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Carbon disulfide	Chloroform	Ethylbenzene	Methylene chloride	Styrene	Tetrachloroethene	Toluene	Total Xylene	Trichloroethene	Depth Interval, Feet	Number of Samples	Heptachlorodibenzofurans	Octachlorodibenzo-P-Dioxin	Octachlorodibenzofuran					
Surface Soil:																																
Maximum Background																																
0 - 0.5	10	-	-	X	-	-	X	-	-	-	-	X	X	-	X	-	X	-	X	X	-	X	0 - 0.5	2	X	X	X					
0.5 - 1	15	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	-	-	X	X	X	X	0.5 - 1	2	-	-	X					
1 - 1.5	6	-	-	-	-	-	-	-				-	-	-	-	-	X	-	-	-	-	-	1 - 1.5	0								
Subsurface Soil:																																
Maximum Background																																
1.5 - 3	15	X	X	X	-	-	X	-	X	X	X	X	-	X	X	-	X	-	X	X	-	X										
3 - 5	13	X	X	X	X	X	X	-	X	X	X	X	-	X	X	X	X	-	X	X	X	X										
5 - 10	4	-	X	-	-	-	X	-		-	-	-	-	-	-	-	X	-	-	X	-	-										
10 - 15	1	-	-	-	-	-	-	-		-	X	X	-	X	-	-	-	-	-	-	-	-										
15 - 20	0																															

"Blank" - Compound was not analyzed.

X Detection where background level not recorded.

- Analyzed and not detected.

TABLE D.2-16
(Continued)

Depth Interval, Feet	SEMIVOLATILES (ug/kg)																																									PESTICIDES/PCBs (ug/kg)									
	Number of Samples	1,2,4-Trichlorobenzene	1,4-Dichlorobenzene	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2,4-Dimethylphenol	2,4-Dinitrotoluene	4-Methylphenol	4-Chloro-3-methylphenol	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-Chloroisopropyl)Ether	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Di-n-butyl phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Fluoranthene	Fluorene	Hexachlorobutadiene	Idenol(1,2,3-cd)pyrene	N NitrosoDiNPropylamine	N-Nitrosodiphenylamine	Naphthalene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Number of Samples	Aroclor 1248	Aroclor-1254	Aroclor-1260	Beta-BHC	Endrin	Endrin Aldehyde			
Surface Soil:																																																				
0 - 0.5	9	-	-	-	X	X	X	X	X	-	-	X	-	X	X	X	X	X	X	X	-	X	X	X	X	X	-	X	X	-	X	-	X	X	-	X	-	X	10	-	X	X	-	X	-			
0.5 - 1	15	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-	X	X		X	X	-	X	-	X	-	X	-	-	X	X	-	X	-	X	14	-	X	X	X	-				
1 - 1.5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	7	-	X	-	-	-	X			
Subsurface Soil:																																																				
1.5 - 3	16	X	X	X	X	-	-	X	-	-	X	X	-	-	X	-	X	-	-	-	X	-	-	X	-	-	X	X	X	-	-	-	X	-	X	X	X	X	X	17	-	X	-	-	-	X			
3 - 5	13	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	X	X	X	-	-	-			
5 - 10	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	X	-	-	-	-			
10 - 15	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-				
15 - 20	0																																							0									

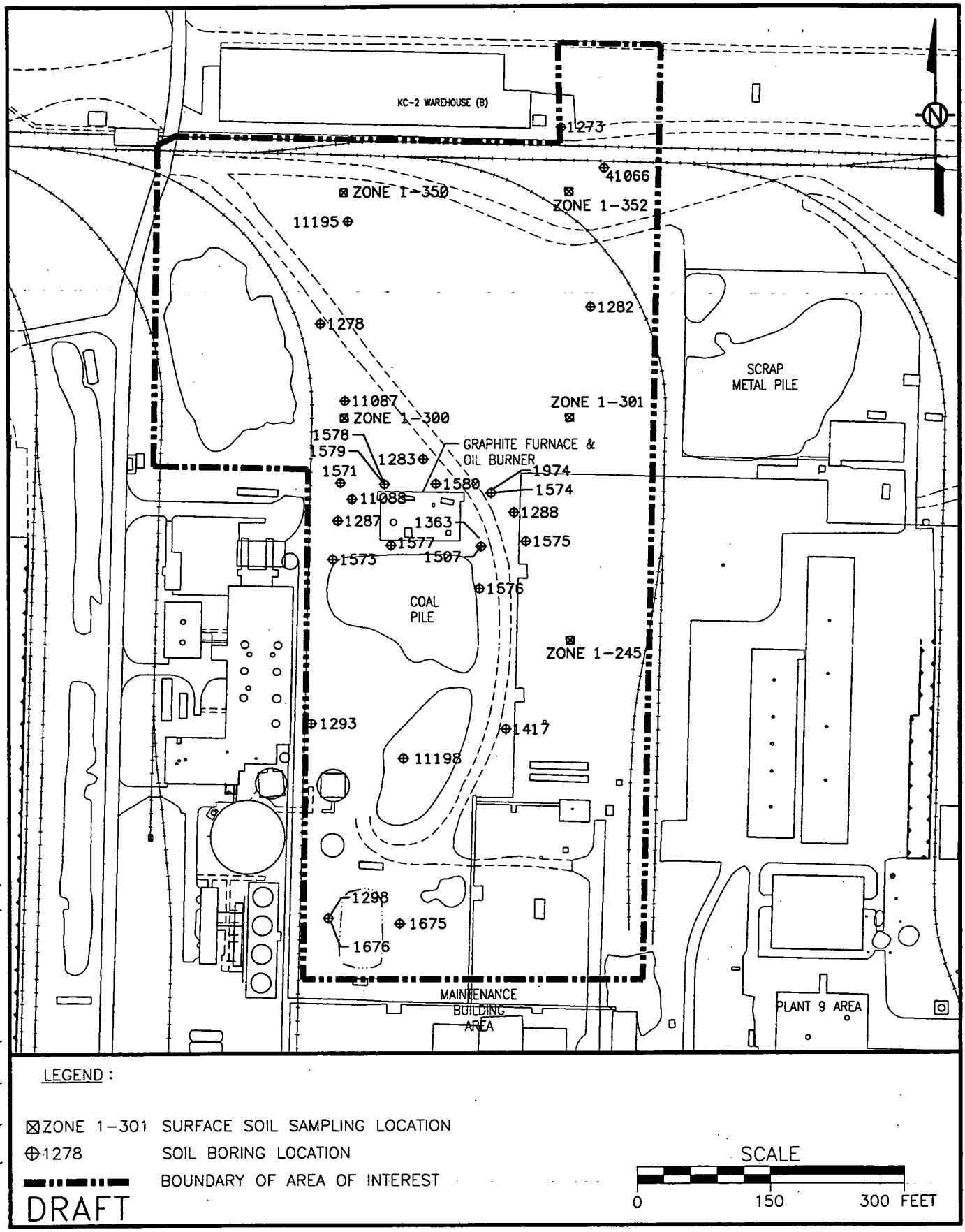
"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

000595

P 569



LEGEND :

⊠ZONE 1-301 SURFACE SOIL SAMPLING LOCATION

⊕1278 SOIL BORING LOCATION

BOUNDARY OF AREA OF INTEREST

SCALE

0 150 300 FEET

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ACAD: W:\DATA\CADD\4P94\94051001.DWG 6/12/94 MLS STATE PLANAR COORDINATE SYSTEM 1927

FIGURE D.2-20. GRAPHITE FURNACE, OIL BURNER, AND COAL PILE AREA

Graphite Furnace, Oil Burner, and Coal Pile Area

Summary Soil Statistics

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	15/15	14	15/15	3.500-179.000	50.65			1.24
URANIUM, TOTAL	MG/KG	26/27	18	26/27	12.000-467.000	116.94	34.400	34.400	3.73
URANIUM-234	PCI/G	15/15	14	15/15	2.600-191.000	48.60			1.24
THORIUM-230	PCI/G	16/17	16	11/17	0.300-17.000	3.66	0.800	0.800	1.97
RADIUM-226	PCI/G	16/17	16	2/17	0.500-1.800	1.00	0.250	0.250	1.42
URANIUM-235/236	PCI/G	11/14	13	11/14	0.300-28.400	5.76	0.100	0.600	0.156
THORIUM-232	PCI/G	16/17	16	2/17	0.400-1.800	0.90	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	19/24	7	4/24	3.648-23.000	9.21	5.472	23.000	12.4
RADIUM-228	PCI/G	15/18	17	3/18	0.546-1.800	0.96	0.500	0.500	1.25
THORIUM-228	PCI/G	16/17	16	2/17	0.300-2.050	1.03	0.500	0.500	1.43
NEPTUNIUM-237	PCI/G	0/12	12	0/12			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/12	12	0/12			0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/12	12	0/12			0.200	0.600	NA
STRONTIUM-90	PCI/G	3/10	10	3/10	1.100-1.500	1.26	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	6/11	11	6/11	1.300-18.500	7.60	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/11	11	0/11			1.000	1.300	NA
CESIUM-137	PCI/G	7/12	12	0/12	0.213-0.600	0.39	0.200	0.200	0.711

000598

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	4/4	4	4/4	7.600-52.900	28.28			1.24
URANIUM, TOTAL	MG/KG	5/6	5	5/6	24.000-98.000	66.60	11.000	11.000	3.73
URANIUM-234	PCI/G	4/4	4	4/4	7.100-56.800	28.73			1.24
THORIUM-230	PCI/G	3/3	3	3/3	2.100-4.100	2.83			1.97
RADIUM-226	PCI/G	4/4	4	1/4	0.800-1.500	1.25			1.42
URANIUM-235/236	PCI/G	3/4	4	3/4	0.800-2.800	2.03	0.600	0.600	0.156
THORIUM-232	PCI/G	3/3	3	1/3	1.100-1.500	1.27			1.36
THORIUM, TOTAL	MG/KG	3/4	1	1/4	10.000-13.680	11.54	23.000	23.000	12.4
RADIUM-228	PCI/G	4/4	4	2/4	0.700-1.400	1.15			1.25
THORIUM-228	PCI/G	3/3	3	1/3	1.200-1.600	1.37			1.43
NEPTUNIUM-237	PCI/G	0/5	5	0/5			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/5	5	0/5			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/5	5	0/5			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/5	5	2/5	3.200-3.400	3.30	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	2/5	5	2/5	1.200-5.000	3.10	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	3	0/3			1.000	1.000	NA
CESIUM-137	PCI/G	1/3	3	0/3	0.300-0.300	0.30	0.200	0.200	0.711

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	5/5	5	4/5	1.200-147.000	33.60			1.24
URANIUM, TOTAL	MG/KG	8/8	8	6/8	2.900-428.000	73.75			3.73
URANIUM-234	PCI/G	5/5	5	5/5	1.300-171.000	38.02			1.24
THORIUM-230	PCI/G	7/8	8	1/8	0.400-2.600	1.16	0.600	0.600	1.97
RADIUM-226	PCI/G	5/7	7	0/7	0.400-1.300	0.86	0.250	0.250	1.42
URANIUM-235/236	PCI/G	2/5	5	2/5	0.600-5.800	3.20	0.100	0.600	0.156
THORIUM-232	PCI/G	6/7	7	1/7	0.500-1.400	0.80	0.500	0.500	1.36
THORIUM, TOTAL	MG/KG	7/8	1	1/8	3.648-12.768	6.78	4.560	4.560	12.4
RADIUM-228	PCI/G	4/8	8	0/8	0.900-1.200	0.98	0.500	0.500	1.25
THORIUM-228	PCI/G	7/8	8	1/8	0.500-1.500	0.87	0.400	0.400	1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/3	3	1/3	6.500-6.500	6.50	0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.200	0.600	NA
STRONTIUM-90	PCI/G	1/3	3	1/3	1.700-1.700	1.70	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	0.711

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	5/5	5	2/5	0.500-17.500	4.10			1.12
URANIUM, TOTAL	MG/KG	9/16	7	6/16	2.100-57.700	23.76	11.000	11.000	3.69
URANIUM-234	PCI/G	5/5	5	1/5	0.500-18.200	4.20			1.04
THORIUM-230	PCI/G	4/5	5	0/5	0.500-1.200	1.00	1.300	1.300	1.91
RADIUM-226	PCI/G	2/4	4	0/4	0.400-0.900	0.65	0.250	0.250	1.47
URANIUM-235/236	PCI/G	1/4	4	1/4	1.000-1.000	1.00	0.100	0.100	0.150
THORIUM-232	PCI/G	3/5	5	0/5	0.800-1.200	0.93	0.400	1.000	1.26
THORIUM, TOTAL	MG/KG	3/14	2	0/14	7.296-10.944	8.51	3.648	23.000	11.1
RADIUM-228	PCI/G	1/5	5	0/5	0.600-0.600	0.60	0.500	0.500	1.31
THORIUM-228	PCI/G	4/5	5	0/5	0.300-1.100	0.83	0.800	0.800	1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/1	1	1/1	1.800-1.800	1.80			NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	3/3	3	1/3	0.700-1.200	0.93			1.12
URANIUM, TOTAL	MG/KG	8/9	4	5/9	2.400-52.000	16.25	11.000	11.000	3.69
URANIUM-234	PCI/G	3/3	3	0/3	0.500-0.900	0.73			1.04
THORIUM-230	PCI/G	1/3	3	0/3	1.600-1.600	1.60	0.300	0.700	1.91
RADIUM-226	PCI/G	2/3	3	0/3	0.300-0.500	0.40	0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.100	0.100	0.150
THORIUM-232	PCI/G	1/3	3	1/3	1.300-1.300	1.30	0.200	0.500	1.26
THORIUM, TOTAL	MG/KG	4/8	2	2/8	1.824-23.000	11.54	4.560	23.000	11.1
RADIUM-228	PCI/G	0/3	3	0/3			0.500	0.500	1.31
THORIUM-228	PCI/G	2/3	3	0/3	0.200-1.100	0.65	0.400	0.400	1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	2/2	2	1/2	0.900-2.700	1.80			1.12
URANIUM, TOTAL	MG/KG	6/13	3	3/13	2.300-37.000	11.78	11.000	11.000	3.69
URANIUM-234	PCI/G	2/2	2	1/2	0.800-2.300	1.55			1.04
THORIUM-230	PCI/G	3/3	3	0/3	0.700-1.200	1.00			1.91
RADIUM-226	PCI/G	1/3	3	0/3	0.300-0.300	0.30	0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	2/3	3	0/3	0.800-1.000	0.90	0.200	0.200	1.26
THORIUM, TOTAL	MG/KG	4/13	1	0/13	1.824-9.120	5.52	18.000	23.000	11.1
RADIUM-228	PCI/G	1/3	3	0/3	0.600-0.600	0.60	0.500	0.500	1.31
THORIUM-228	PCI/G	3/3	3	0/3	0.400-1.000	0.73			1.38

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	4/15	2	3/15	3.650-39.000	14.91	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	1/13	1	1/13	18.000-18.000	18.00	5.670	23.000	11.1

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	5/10	3	4/10	1.640-19.000	10.04	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	3/9	3	0/9	1.030-8.370	4.21	18.000	23.000	11.1

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM, TOTAL	MG/KG	0/5	0	0/5			11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/5	0	0/5			18.000	18.000	11.1

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	10/10	9	1/10	483.000-18600.000	8692.30			11900
ANTIMONY	MG/KG	0/6	5	0/6			2.400	7.100	NA
ARSENIC	MG/KG	9/9	8	5/9	3.300-23.100	10.56			8.20
BARIUM	MG/KG	10/10	9	7/10	36.400-512.000	212.51			95.7
BERYLLIUM	MG/KG	4/10	9	4/10	0.980-1.800	1.47	1.100	1.300	0.6
CADMIUM	MG/KG	5/10	9	5/10	2.100-6.200	4.10	1.100	1.300	0.870
CALCIUM	MG/KG	10/10	9	10/10	11100.000-205000.000	60910.00			4340
CHROMIUM	MG/KG	10/10	9	5/10	1.600-37.500	18.09			15.5
COBALT	MG/KG	9/10	9	1/10	7.700-15.700	11.37	3.800	3.800	14.2
COPPER	MG/KG	8/10	9	7/10	8.700-28.300	19.84	11.600	18.200	14.1
CYANIDE	MG/KG	1/9	9	1/9	2.300-2.300	2.30	0.270	0.330	0.270
IRON	MG/KG	10/10	9	2/10	7170.000-32700.000	18655.00			21700
LEAD	MG/KG	9/9	8	2/9	9.200-57.200	25.62			26.4
MAGNESIUM	MG/KG	10/10	9	9/10	227.000-45100.000	14438.70			2780
MANGANESE	MG/KG	9/9	8	0/9	9.900-786.000	465.99			1350
MERCURY	MG/KG	3/10	9	0/10	0.160-0.280	0.22	0.050	0.170	0.3
MOLYBDENUM	MG/KG	1/9	8	1/9	2.300-2.300	2.30	1.700	4.400	NA
NICKEL	MG/KG	9/10	9	6/10	5.300-40.700	25.86	18.700	18.700	20.9
POTASSIUM	MG/KG	10/10	9	3/10	295.000-2850.000	1171.90			1230
SELENIUM	MG/KG	1/5	4	1/5	1.000-1.000	1.00	0.220	0.470	0.72
SILICON	MG/KG	4/4	4	0/4	54.800-975.000	338.45			1800
SILVER	MG/KG	2/6	5	2/6	2.900-4.000	3.45	0.230	2.000	NA

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	9/10	9	9/10	60.900-2000.000	732.19	84.300	84.300	51.1
THALLIUM	MG/KG	3/9	8	0/9	0.320-0.420	0.37	0.190	0.260	0.58
VANADIUM	MG/KG	10/10	9	2/10	8.500-32.600	24.48			30.4
ZINC	MG/KG	9/9	8	6/9	17.800-248.000	132.77			59.6

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	15/15	14	4/15	2850.000-14800.000	9218.67			11900
ANTIMONY	MG/KG	0/2	1	0/2			4.400	32.800	NA
ARSENIC	MG/KG	12/12	11	6/12	3.700-81.900	15.28			8.20
BARIUM	MG/KG	15/15	14	10/15	50.200-523.000	170.59			95.7
BERYLLIUM	MG/KG	13/15	14	13/15	0.700-1.900	1.03	1.200	2.200	0.6
CADMIUM	MG/KG	15/15	14	15/15	1.900-12.400	3.75			0.870
CALCIUM	MG/KG	15/15	14	15/15	5040.000-163000.000	49751.33			4340
CHROMIUM	MG/KG	11/11	10	10/11	11.200-28.300	19.39			15.5
COBALT	MG/KG	14/15	14	1/15	9.000-16.100	11.14	10.900	10.900	14.2
COPPER	MG/KG	15/15	14	14/15	7.500-43.300	21.69			14.1
CYANIDE	MG/KG	3/13	13	1/13	0.120-0.440	0.23	0.110	0.290	0.270
IRON	MG/KG	15/15	14	6/15	8620.000-41800.000	21214.67			21700
LEAD	MG/KG	15/15	14	5/15	7.800-38.200	18.89			26.4
MAGNESIUM	MG/KG	15/15	14	14/15	2570.000-65300.000	13492.67			2780
MANGANESE	MG/KG	14/14	13	0/14	132.000-818.000	469.36			1350
MERCURY	MG/KG	5/15	14	1/15	0.130-0.320	0.20	0.090	0.120	0.3
MOLYBDENUM	MG/KG	2/14	13	2/14	2.500-3.100	2.80	1.500	10.900	NA
NICKEL	MG/KG	11/11	10	10/11	17.500-44.800	28.56			20.9
POTASSIUM	MG/KG	15/15	14	2/15	400.000-1540.000	859.60			1230
SELENIUM	MG/KG	7/13	12	3/13	0.480-7.700	1.72	0.400	0.480	0.72
SILVER	MG/KG	10/14	13	10/14	2.400-36.400	8.24	1.500	2.400	NA
SODIUM	MG/KG	15/15	14	14/15	48.400-1700.000	481.59			51.1

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
THALLIUM	MG/KG	3/14	13	0/14	0.240-0.460	0.37	0.210	0.490	0.58
VANADIUM	MG/KG	15/15	14	1/15	16.600-41.300	24.09			30.4
ZINC	MG/KG	14/14	13	9/14	42.700-285.000	93.60			59.6

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	6/6	6	3/6	4550.000-20800.000	12203.33			11900
ANTIMONY	MG/KG	0/4	4	0/4			2.300	2.700	NA
ARSENIC	MG/KG	5/5	5	2/5	3.000-14.000	7.58			8.20
BARIUM	MG/KG	6/6	6	4/6	24.500-324.000	152.92			95.7
BERYLLIUM	MG/KG	0/6	6	0/6			0.840	3.800	0.6
CADMIUM	MG/KG	2/6	6	2/6	1.500-2.700	2.10	1.000	1.200	0.870
CALCIUM	MG/KG	6/6	6	5/6	1540.000-99400.000	36613.33			4340
CHROMIUM	MG/KG	6/6	6	3/6	6.900-25.800	16.40			15.5
COBALT	MG/KG	5/6	6	1/6	8.000-19.500	11.96	8.200	8.200	14.2
COPPER	MG/KG	4/6	6	3/6	12.300-51.400	27.98	7.100	23.500	14.1
CYANIDE	MG/KG	0/6	6	0/6			0.260	0.310	0.270
IRON	MG/KG	6/6	6	3/6	11300.000-35000.000	23250.00			21700
LEAD	MG/KG	5/5	5	0/5	10.200-21.200	16.32			26.4
MAGNESIUM	MG/KG	6/6	6	5/6	1150.000-42100.000	14293.33			2780
MANGANESE	MG/KG	6/6	6	1/6	274.000-2700.000	884.33			1350
MERCURY	MG/KG	0/6	6	0/6			0.050	0.060	0.3
MOLYBDENUM	MG/KG	0/5	5	0/5			3.600	4.200	NA
NICKEL	MG/KG	5/6	6	3/6	8.000-41.300	22.58	25.700	25.700	20.9
POTASSIUM	MG/KG	6/6	6	2/6	273.000-1690.000	980.83			1230
SELENIUM	MG/KG	2/3	3	2/3	0.890-1.900	1.40	0.210	2.500	0.72
SILICON	MG/KG	4/4	4	0/4	46.500-735.000	351.63			1800
SILVER	MG/KG	0/3	3	0/3			0.230	0.490	NA

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	5/6	6	5/6	81.800-124.000	100.60	54.000	54.000	51.1
THALLIUM	MG/KG	1/6	6	0/6	0.370-0.370	0.37	0.210	0.240	0.58
VANADIUM	MG/KG	6/6	6	3/6	13.800-39.400	29.25			30.4
ZINC	MG/KG	6/6	6	4/6	38.400-91.800	71.93			59.6

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	16/16	16	0/16	2100.000-14700.000	10300.63			16100
ANTIMONY	MG/KG	0/4	4	0/4			2.500	31.900	NA
ARSENIC	MG/KG	13/13	13	1/13	0.030-11.500	6.31			9.57
BARIUM	MG/KG	16/16	16	5/16	33.400-208.000	97.73			119
BERYLLIUM	MG/KG	12/16	16	12/16	0.630-1.400	0.95	1.100	2.100	0.620
CADMIUM	MG/KG	13/16	16	13/16	1.400-7.700	3.52	1.200	1.300	0.910
CALCIUM	MG/KG	16/16	16	2/16	4360.000-211000.000	56373.75			150000
CHROMIUM	MG/KG	12/12	12	4/12	10.200-87.700	23.74			20.7
COBALT	MG/KG	15/16	16	3/16	6.200-23.600	12.77	10.600	10.600	15.7
COPPER	MG/KG	15/16	16	7/16	14.500-43.900	22.21	24.000	24.000	20.0
CYANIDE	MG/KG	3/15	15	3/15	0.290-0.520	0.44	0.110	0.300	.17
IRON	MG/KG	16/16	16	2/16	6940.000-40000.000	23671.25			30700
LEAD	MG/KG	16/16	16	3/16	7.700-18.000	12.44			15.6
MAGNESIUM	MG/KG	16/16	16	0/16	2540.000-39900.000	14091.25			42600
MANGANESE	MG/KG	16/16	16	3/16	188.000-4200.000	926.06			1300
MERCURY	MG/KG	0/16	16	0/16			0.060	0.130	0.29
MOLYBDENUM	MG/KG	4/16	16	4/16	3.100-6.900	4.10	2.400	10.600	2.7
NICKEL	MG/KG	12/12	12	3/12	16.400-52.400	28.62			34.3
POTASSIUM	MG/KG	16/16	16	0/16	374.000-1410.000	889.81			1980
SELENIUM	MG/KG	2/14	14	2/14	0.540-0.800	0.67	0.250	2.400	NA
SILICON	MG/KG	4/4	4	0/4	58.700-651.000	366.93			1590
SILVER	MG/KG	7/13	13	7/13	2.400-30.500	9.37	0.240	2.400	NA

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000043

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	15/16	16	0/16	55.700-193.000	111.35	112.000	112.000	285
THALLIUM	MG/KG	0/16	16	0/16			0.230	0.490	0.49
VANADIUM	MG/KG	16/16	16	0/16	15.700-33.100	25.06			37.8
ZINC	MG/KG	16/16	16	2/16	23.700-113.000	59.52			82.0

001014

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5699

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	13/13	13	2/13	4710.000-142000.000	20420.77			16100
ANTIMONY	MG/KG	0/2	2	0/2			2.500	14.000	NA
ARSENIC	MG/KG	11/11	11	1/11	2.600-15.000	6.68			9.57
BARIUM	MG/KG	13/13	13	2/13	40.400-141.000	87.85			119
BERYLLIUM	MG/KG	10/13	13	9/13	0.590-2.200	0.91	0.970	1.400	0.620
CADMIUM	MG/KG	11/13	13	11/13	1.800-6.000	3.28	1.200	1.400	0.910
CALCIUM	MG/KG	13/13	13	0/13	5500.000-135000.000	42756.92			150000
CHROMIUM	MG/KG	9/9	9	2/9	10.200-28.300	16.59			20.7
COBALT	MG/KG	12/13	13	3/13	6.200-28.100	12.26	6.000	6.000	15.7
COPPER	MG/KG	12/13	13	6/13	11.700-30.600	20.16	17.300	17.300	20.0
CYANIDE	MG/KG	3/13	13	1/13	0.130-0.200	0.16	0.110	1.500	.17
IRON	MG/KG	13/13	13	3/13	13700.000-66600.000	25946.15			30700
LEAD	MG/KG	13/13	13	1/13	7.000-17.000	11.70			15.6
MAGNESIUM	MG/KG	13/13	13	0/13	2330.000-39600.000	14025.39			42600
MANGANESE	MG/KG	13/13	13	2/13	117.000-1610.000	545.00			1300
MERCURY	MG/KG	0/13	13	0/13			0.060	0.130	0.29
MOLYBDENUM	MG/KG	2/13	13	2/13	3.400-4.300	3.85	2.200	4.600	2.7
NICKEL	MG/KG	9/9	9	1/9	15.800-54.900	25.11			34.3
POTASSIUM	MG/KG	13/13	13	0/13	555.000-1430.000	928.23			1980
SELENIUM	MG/KG	2/12	12	2/12	0.590-1.600	1.10	0.240	2.700	NA
SILICON	MG/KG	2/2	2	0/2	47.100-577.000	312.05			1590
SILVER	MG/KG	8/11	11	8/11	2.500-7.500	4.31	0.270	2.200	NA

000055

DRAFT

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
SODIUM	MG/KG	12/13	13	0/13	45.000-152.000	93.46	166.000	166.000	285
THALLIUM	MG/KG	1/13	13	0/13	0.480-0.480	0.48	0.220	0.530	0.49
VANADIUM	MG/KG	12/13	13	0/13	14.700-31.400	24.70	16.700	16.700	37.8
ZINC	MG/KG	13/13	13	1/13	35.500-218.000	67.97			82.0

001016

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5699

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	4/4	4	0/4	6360.000-13700.000	9550.00			16100
ANTIMONY	MG/KG	0/2	2	0/2			2.500	2.700	NA
ARSENIC	MG/KG	3/3	3	0/3	2.800-5.600	4.13			9.57
BARIUM	MG/KG	4/4	4	0/4	32.700-93.500	59.10			119
BERYLLIUM	MG/KG	2/4	4	2/4	0.770-2.900	1.84	1.200	1.600	0.620
CADMIUM	MG/KG	2/4	4	2/4	1.500-5.900	3.70	1.200	2.400	0.910
CALCIUM	MG/KG	4/4	4	0/4	5470.000-118000.000	87367.50			150000
CHROMIUM	MG/KG	4/4	4	0/4	12.000-19.400	14.88			20.7
COBALT	MG/KG	4/4	4	0/4	8.700-11.800	9.58			15.7
COPPER	MG/KG	3/4	4	1/4	14.600-20.900	18.50	17.600	17.600	20.0
CYANIDE	MG/KG	1/3	3	1/3	0.810-0.810	0.81	0.280	0.310	.17
IRON	MG/KG	4/4	4	0/4	14900.000-28800.000	20950.00			30700
LEAD	MG/KG	3/3	3	0/3	8.200-14.300	11.50			15.6
MAGNESIUM	MG/KG	4/4	4	0/4	4990.000-28500.000	20022.50			42600
MANGANESE	MG/KG	4/4	4	0/4	319.000-714.000	515.50			1300
MERCURY	MG/KG	0/4	4	0/4			0.060	0.110	0.29
MOLYBDENUM	MG/KG	1/3	3	1/3	4.400-4.400	4.40	3.900	4.200	2.7
NICKEL	MG/KG	3/4	4	0/4	20.500-26.100	23.57	22.300	22.300	34.3
POTASSIUM	MG/KG	4/4	4	1/4	1190.000-2070.000	1660.00			1980
SELENIUM	MG/KG	2/3	3	2/3	0.320-0.620	0.47	0.440	2.300	NA
SILICON	MG/KG	2/2	2	0/2	97.400-145.000	121.20			1590
SILVER	MG/KG	2/4	4	2/4	0.930-7.700	4.32	0.230	0.250	NA

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000027

DRAFT

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	4/4	4	0/4	49.000-197.000	139.50			285
THALLIUM	MG/KG	0/4	4	0/4			0.230	0.440	0.49
VANADIUM	MG/KG	4/4	4	0/4	18.200-35.000	23.88			37.8
ZINC	MG/KG	4/4	4	0/4	36.900-77.100	53.05			82.0

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000569

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	6540.000-6540.000	6540.00			16100
ARSENIC	MG/KG	1/1	1	0/1	4.300-4.300	4.30			9.57
BARIUM	MG/KG	1/1	1	0/1	48.500-48.500	48.50			119
BERYLLIUM	MG/KG	1/1	1	1/1	0.860-0.860	0.86			0.620
CADMIUM	MG/KG	1/1	1	1/1	6.500-6.500	6.50			0.910
CALCIUM	MG/KG	1/1	1	0/1	120000.000-120000.000	120000.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	14.000-14.000	14.00			20.7
COBALT	MG/KG	1/1	1	0/1	10.200-10.200	10.20			15.7
COPPER	MG/KG	1/1	1	0/1	17.300-17.300	17.30			20.0
CYANIDE	MG/KG	1/1	1	1/1	1.300-1.300	1.30			.17
IRON	MG/KG	1/1	1	0/1	15300.000-15300.000	15300.00			30700
LEAD	MG/KG	1/1	1	0/1	8.900-8.900	8.90			15.6
MAGNESIUM	MG/KG	1/1	1	0/1	34600.000-34600.000	34600.00			42600
MANGANESE	MG/KG	1/1	1	0/1	419.000-419.000	419.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.29
MOLYBDENUM	MG/KG	1/1	1	1/1	4.800-4.800	4.80			2.7
NICKEL	MG/KG	1/1	1	0/1	27.200-27.200	27.20			34.3
POTASSIUM	MG/KG	1/1	1	0/1	1050.000-1050.000	1050.00			1980
SELENIUM	MG/KG	0/1	1	0/1			0.440	0.440	NA
SILVER	MG/KG	1/1	1	1/1	7.400-7.400	7.40			NA
SODIUM	MG/KG	1/1	1	0/1	139.000-139.000	139.00			285
THALLIUM	MG/KG	0/1	1	0/1			0.440	0.440	0.49

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DRAFT

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
VANADIUM	MG/KG	1/1	1	0/1	17.900-17.900	17.90			37.8
ZINC	MG/KG	1/1	1	0/1	35.600-35.600	35.60			82.0

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/10	10	1/10	7.000-7.000	7.00	5.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/10	10	0/10			5.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/10	10	0/10			5.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/10	10	0/10			5.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/10	10	0/10			5.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/10	10	0/10			5.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/10	10	1/10	1.000-1.000	1.00	5.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/10	10	0/10			5.000	13.000	
2-BUTANONE	UG/KG	0/5	5	0/5			10.000	13.000	
2-HEXANONE	UG/KG	0/5	5	0/5			10.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/5	5	0/5			10.000	13.000	
ACETONE	UG/KG	1/10	10	1/10	56.000-56.000	56.00	11.000	16.000	
BENZENE	UG/KG	1/10	10	1/10	2.000-2.000	2.00	5.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/10	10	0/10			5.000	13.000	
BROMOFORM	UG/KG	0/10	10	0/10			5.000	13.000	
BROMOMETHANE	UG/KG	0/10	10	0/10			10.000	13.000	
CARBON DISULFIDE	UG/KG	0/10	10	0/10			5.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/10	10	0/10			5.000	13.000	
CHLOROBENZENE	UG/KG	0/10	10	0/10			5.000	13.000	
CHLOROETHANE	UG/KG	0/10	10	0/10			10.000	13.000	
CHLOROFORM	UG/KG	1/10	10	1/10	9.000-9.000	9.00	5.000	13.000	
CHLOROMETHANE	UG/KG	0/10	10	0/10			10.000	13.000	

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/10	10	0/10			5.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/10	10	0/10			5.000	13.000	
ETHYLBENZENE	UG/KG	0/10	10	0/10			5.000	13.000	
METHYLENE CHLORIDE	UG/KG	3/10	10	3/10	6.000-38.000	17.00	11.000	28.000	
STYRENE	UG/KG	0/10	10	0/10			5.000	13.000	
TETRACHLOROETHENE	UG/KG	5/9	9	5/9	1.000-15.000	7.20	6.000	13.000	
TOLUENE	UG/KG	5/10	10	5/10	1.000-3.000	2.00	6.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/10	10	0/10			5.000	13.000	
TRICHLOROETHENE	UG/KG	3/10	10	3/10	1.000-12.000	6.33	6.000	13.000	
VINYL ACETATE	UG/KG	0/10	10	0/10			10.000	13.000	
VINYL CHLORIDE	UG/KG	0/10	10	0/10			10.000	13.000	
XYLENES, TOTAL	UG/KG	0/10	10	0/10			5.000	13.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	7/15	15	7/15	2.000-350.000	73.29	5.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/15	15	1/15	190.000-190.000	190.00	5.000	140.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/15	15	0/15			5.000	710.000	
1,1-DICHLOROETHANE	UG/KG	2/15	15	2/15	1.000-22.000	11.50	5.000	710.000	
1,1-DICHLOROETHENE	UG/KG	1/15	15	1/15	39.000-39.000	39.00	5.000	710.000	
1,2-DICHLOROETHANE	UG/KG	1/15	15	1/15	2.000-2.000	2.00	5.000	710.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	2/15	15	2/15	3.000-4.000	3.50	5.000	710.000	
1,2-DICHLOROPROPANE	UG/KG	0/15	15	0/15			5.000	710.000	
2-BUTANONE	UG/KG	1/11	11	1/11	3.000-3.000	3.00	6.000	280.000	
2-HEXANONE	UG/KG	1/15	15	1/15	2.000-2.000	2.00	11.000	1500.000	
4-METHYL-2-PENTANONE	UG/KG	3/15	15	3/15	2.000-14.000	9.67	6.000	280.000	
ACETONE	UG/KG	1/14	14	1/14	63.000-63.000	63.00	6.000	280.000	
BENZENE	UG/KG	1/15	15	1/15	2.000-2.000	2.00	5.000	710.000	
BROMODICHLOROMETHANE	UG/KG	0/15	15	0/15			5.000	710.000	
BROMOFORM	UG/KG	0/15	15	0/15			5.000	710.000	
BROMOMETHANE	UG/KG	0/15	15	0/15			11.000	1500.000	
CARBON DISULFIDE	UG/KG	5/15	15	5/15	2.000-790.000	165.40	5.000	140.000	
CARBON TETRACHLORIDE	UG/KG	0/15	15	0/15			5.000	710.000	
CHLOROBENZENE	UG/KG	0/15	15	0/15			5.000	710.000	
CHLOROETHANE	UG/KG	0/15	15	0/15			11.000	1500.000	
CHLOROFORM	UG/KG	4/15	15	4/15	2.000-280.000	72.75	5.000	140.000	
CHLOROMETHANE	UG/KG	0/15	15	0/15			11.000	1500.000	

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DRAFT

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/15	15	0/15			5.000	710.000	
DIBROMOCHLOROMETHANE	UG/KG	0/15	15	0/15			5.000	710.000	
ETHYLBENZENE	UG/KG	2/15	15	2/15	2.000-140.000	71.00	5.000	710.000	
METHYLENE CHLORIDE	UG/KG	0/15	15	0/15			6.000	640.000	
STYRENE	UG/KG	0/15	15	0/15			5.000	6000.000	
TETRACHLOROETHENE	UG/KG	8/14	14	8/14	4.000-15000.000	1902.63	5.000	6.000	
TOLUENE	UG/KG	5/15	15	5/15	2.000-160.000	34.20	6.000	710.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/15	15	0/15			5.000	710.000	
TRICHLOROETHENE	UG/KG	5/15	15	5/15	2.000-90.000	30.00	5.000	6.000	
VINYL ACETATE	UG/KG	0/15	15	0/15			11.000	1500.000	
VINYL CHLORIDE	UG/KG	0/15	15	0/15			11.000	1500.000	
XYLENES, TOTAL	UG/KG	2/15	15	2/15	6.000-120.000	63.00	5.000	710.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/6	6	0/6			10.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/6	6	0/6			10.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/6	6	0/6			10.000	12.000	
ACETONE	UG/KG	0/6	6	0/6			10.000	71.000	
BENZENE	UG/KG	0/6	6	0/6			10.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
BROMOFORM	UG/KG	0/6	6	0/6			10.000	12.000	
BROMOMETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/6	6	0/6			10.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/6	6	0/6			10.000	12.000	
CHLOROBENZENE	UG/KG	0/6	6	0/6			10.000	12.000	
CHLOROETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
CHLOROFORM	UG/KG	0/6	6	0/6			10.000	12.000	
CHLOROMETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			10.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/6	6	0/6			10.000	12.000	
ETHYLBENZENE	UG/KG	0/6	6	0/6			10.000	12.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
METHYLENE CHLORIDE	UG/KG	1/6	6	1/6	19.000-19.000	19.00	10.000	12.000	
STYRENE	UG/KG	0/6	6	0/6			10.000	12.000	
TETRACHLOROETHENE	UG/KG	0/6	6	0/6			10.000	12.000	
TOLUENE	UG/KG	0/6	6	0/6			10.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/6	6	0/6			10.000	12.000	
TRICHLOROETHENE	UG/KG	0/6	6	0/6			10.000	12.000	
VINYL ACETATE	UG/KG	0/5	5	0/5			10.000	12.000	
VINYL CHLORIDE	UG/KG	0/6	6	0/6			10.000	12.000	
XYLENES, TOTAL	UG/KG	0/6	6	0/6			10.000	12.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/15	15	1/15	9.000-9.000	9.00	5.000	780.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/15	15	0/15			5.000	780.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/15	15	0/15			5.000	780.000	
1,1-DICHLOROETHANE	UG/KG	1/15	15	1/15	25.000-25.000	25.00	5.000	780.000	
1,1-DICHLOROETHENE	UG/KG	1/15	15	1/15	2.000-2.000	2.00	5.000	780.000	
1,2-DICHLOROETHANE	UG/KG	0/15	15	0/15			5.000	780.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	3/15	15	3/15	1.000-29.000	11.00	5.000	780.000	
1,2-DICHLOROPROPANE	UG/KG	0/15	15	0/15			5.000	780.000	
2-BUTANONE	UG/KG	1/7	7	1/7	42.000-42.000	42.00	6.000	29.000	
2-HEXANONE	UG/KG	1/10	10	1/10	2.000-2.000	2.00	3.000	1600.000	
4-METHYL-2-PENTANONE	UG/KG	2/10	10	2/10	5.000-11.000	8.00	6.000	13.000	
ACETONE	UG/KG	1/16	16	1/16	52.000-52.000	52.00	11.000	100.000	
BENZENE	UG/KG	0/15	15	0/15			5.000	780.000	
BROMODICHLOROMETHANE	UG/KG	0/15	15	0/15			5.000	780.000	
BROMOFORM	UG/KG	0/15	15	0/15			5.000	780.000	
BROMOMETHANE	UG/KG	0/15	15	0/15			11.000	1600.000	
CARBON DISULFIDE	UG/KG	3/15	15	3/15	4.000-390.000	133.00	5.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/15	15	0/15			5.000	780.000	
CHLOROBENZENE	UG/KG	0/15	15	0/15			5.000	780.000	
CHLOROETHANE	UG/KG	0/15	15	0/15			11.000	1600.000	
CHLOROFORM	UG/KG	1/15	15	1/15	160.000-160.000	160.00	5.000	13.000	
CHLOROMETHANE	UG/KG	0/15	15	0/15			11.000	1600.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/15	15	0/15			5.000	780.000	
DIBROMOCHLOROMETHANE	UG/KG	0/15	15	0/15			5.000	780.000	
ETHYLBENZENE	UG/KG	0/15	15	0/15			5.000	780.000	
METHYLENE CHLORIDE	UG/KG	2/16	16	2/16	3.000-5.000	4.00	5.000	30.000	
STYRENE	UG/KG	0/15	15	0/15			5.000	780.000	
TETRACHLOROETHENE	UG/KG	4/15	15	4/15	1.000-420.000	116.75	5.000	13.000	
TOLUENE	UG/KG	4/15	15	4/15	1.000-2.000	1.50	1.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/15	15	0/15			5.000	780.000	
TRICHLOROETHENE	UG/KG	1/15	15	1/15	19.000-19.000	19.00	5.000	780.000	
VINYL ACETATE	UG/KG	0/14	14	0/14			11.000	1600.000	
VINYL CHLORIDE	UG/KG	0/15	15	0/15			11.000	1600.000	
XYLENES, TOTAL	UG/KG	0/15	15	0/15			5.000	780.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	3/13	13	3/13	8.000-6600.000	2225.67	5.000	750.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/13	13	1/13	190.000-190.000	190.00	5.000	750.000	
1,1,2-TRICHLOROETHANE	UG/KG	1/13	13	1/13	2.000-2.000	2.00	5.000	750.000	
1,1-DICHLOROETHANE	UG/KG	5/13	13	5/13	6.000-290.000	98.40	5.000	750.000	
1,1-DICHLOROETHENE	UG/KG	3/13	13	3/13	5.000-460.000	169.00	5.000	750.000	
1,2-DICHLOROETHANE	UG/KG	0/12	12	0/12			5.000	750.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	6/13	13	6/13	2.000-150.000	56.67	5.000	750.000	
1,2-DICHLOROPROPANE	UG/KG	0/13	13	0/13			5.000	750.000	
2-BUTANONE	UG/KG	1/8	8	1/8	20.000-20.000	20.00	7.000	14.000	
2-HEXANONE	UG/KG	1/10	10	1/10	2.000-2.000	2.00	11.000	1500.000	
4-METHYL-2-PENTANONE	UG/KG	3/10	10	3/10	1.000-25.000	9.33	6.000	1500.000	
ACETONE	UG/KG	1/13	13	1/13	53.000-53.000	53.00	11.000	67.000	
BENZENE	UG/KG	0/13	13	0/13			5.000	750.000	
BROMODICHLOROMETHANE	UG/KG	0/13	13	0/13			5.000	750.000	
BROMOFORM	UG/KG	0/13	13	0/13			5.000	750.000	
BROMOMETHANE	UG/KG	0/13	13	0/13			11.000	1500.000	
CARBON DISULFIDE	UG/KG	2/13	13	2/13	2.000-2.000	2.00	5.000	750.000	
CARBON TETRACHLORIDE	UG/KG	0/13	13	0/13			5.000	750.000	
CHLOROBENZENE	UG/KG	0/13	13	0/13			5.000	750.000	
CHLOROETHANE	UG/KG	0/13	13	0/13			11.000	1500.000	
CHLOROFORM	UG/KG	1/13	13	1/13	2.000-2.000	2.00	5.000	750.000	
CHLOROMETHANE	UG/KG	0/13	13	0/13			11.000	1500.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/13	13	0/13			5.000	750.000	
DIBROMOCHLOROMETHANE	UG/KG	0/13	13	0/13			5.000	750.000	
ETHYLBENZENE	UG/KG	1/13	13	1/13	10.000-10.000	10.00	5.000	750.000	
METHYLENE CHLORIDE	UG/KG	1/13	13	1/13	31.000-31.000	31.00	6.000	35.000	
STYRENE	UG/KG	0/13	13	0/13			5.000	750.000	
TETRACHLOROETHENE	UG/KG	3/13	13	3/13	1.000-2800.000	935.33	5.000	14.000	
TOLUENE	UG/KG	3/13	13	3/13	1.000-66.000	22.67	5.000	750.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/13	13	0/13			5.000	750.000	
TRICHLOROETHENE	UG/KG	4/13	13	4/13	4.000-1300.000	348.25	5.000	750.000	
VINYL ACETATE	UG/KG	0/13	13	0/13			11.000	1500.000	
VINYL CHLORIDE	UG/KG	0/13	13	0/13			11.000	1500.000	
XYLENES, TOTAL	UG/KG	1/13	13	1/13	39.000-39.000	39.00	5.000	750.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			6.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	12.000	
1,1-DICHLOROETHANE	UG/KG	1/4	4	1/4	15.000-15.000	15.00	6.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			6.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/4	4	1/4	33.000-33.000	33.00	6.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			6.000	12.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	12.000	
ACETONE	UG/KG	0/4	4	0/4			11.000	27.000	
BENZENE	UG/KG	0/4	4	0/4			6.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	12.000	
BROMOFORM	UG/KG	0/4	4	0/4			6.000	12.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			6.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			6.000	12.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			6.000	12.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROFORM	UG/KG	0/4	4	0/4			6.000	12.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	12.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	12.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			6.000	12.000	
METHYLENE CHLORIDE	UG/KG	1/4	4	1/4	3.000-3.000	3.00	11.000	13.000	
STYRENE	UG/KG	0/4	4	0/4			6.000	12.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			6.000	12.000	
TOLUENE	UG/KG	1/4	4	1/4	1.000-1.000	1.00	6.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	12.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			6.000	12.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			6.000	12.000	

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			5.000	5.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			5.000	5.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			5.000	5.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	1/1	1	1/1	10.000-10.000	10.00			
ACETONE	UG/KG	1/1	1	1/1	89.000-89.000	89.00			
BENZENE	UG/KG	0/1	1	0/1			5.000	5.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
BROMOFORM	UG/KG	0/1	1	0/1			5.000	5.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	1/1	1	1/1	3.000-3.000	3.00			
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			5.000	5.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			5.000	5.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			5.000	5.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			5.000	5.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			5.000	5.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
STYRENE	UG/KG	0/1	1	0/1			5.000	5.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			5.000	5.000	
TOLUENE	UG/KG	0/1	1	0/1			5.000	5.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			5.000	5.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			5.000	5.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			5.000	5.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/9	9	0/9			360.000	1700.000	
1,2-DICHLOROBENZENE	UG/KG	0/9	9	0/9			360.000	1700.000	
1,3-DICHLOROBENZENE	UG/KG	0/9	9	0/9			360.000	1700.000	
1,4-DICHLOROBENZENE	UG/KG	0/9	9	0/9			360.000	1700.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/9	9	0/9			910.000	8400.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/9	9	0/9			360.000	1700.000	
2,4-DICHLOROPHENOL	UG/KG	0/9	9	0/9			360.000	1700.000	
2,4-DIMETHYLPHENOL	UG/KG	1/9	9	1/9	100.000-100.000	100.00	360.000	1700.000	
2,4-DINITROPHENOL	UG/KG	0/9	9	0/9			910.000	8400.000	
2,4-DINITROTOLUENE	UG/KG	1/9	9	1/9	53.000-53.000	53.00	360.000	1700.000	
2,6-DINITROTOLUENE	UG/KG	0/9	9	0/9			360.000	1700.000	
2-CHLORONAPHTHALENE	UG/KG	0/9	9	0/9			360.000	1700.000	
2-CHLOROPHENOL	UG/KG	0/9	9	0/9			360.000	1700.000	
2-METHYLNAPHTHALENE	UG/KG	7/9	9	7/9	56.000-1300.000	379.43	360.000	370.000	
2-METHYLPHENOL	UG/KG	1/9	9	1/9	45.000-45.000	45.00	360.000	1700.000	
2-NITROANILINE	UG/KG	0/9	8	0/9			910.000	8400.000	
2-NITROPHENOL	UG/KG	0/9	9	0/9			360.000	1700.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/10	10	0/10			360.000	3400.000	
3-NITROANILINE	NONE	0/8	8	0/8			910.000	8400.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/9	9	0/9			910.000	8400.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/9	9	0/9			360.000	1700.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/9	9	0/9			360.000	1700.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/9	9	0/9			360.000	1700.000	
4-METHYLPHENOL	UG/KG	1/9	9	1/9	50.000-50.000	50.00	360.000	1700.000	
4-NITROANILINE	UG/KG	0/9	9	0/9			910.000	8400.000	
4-NITROPHENOL	UG/KG	0/9	9	0/9			910.000	8400.000	
ACENAPHTHENE	UG/KG	1/9	9	1/9	100.000-100.000	100.00	360.000	1700.000	
ACENAPHTHYLENE	UG/KG	0/9	9	0/9			360.000	1700.000	
ANTHRACENE	UG/KG	1/10	10	1/10	100.000-100.000	100.00	360.000	1700.000	
BENZO(A)ANTHRACENE	UG/KG	7/10	10	7/10	48.000-190.000	96.86	750.000	1700.000	
BENZO(A)PYRENE	UG/KG	6/10	10	6/10	39.000-240.000	94.67	400.000	1700.000	
BENZO(B)FLUORANTHENE	UG/KG	7/10	10	7/10	45.000-340.000	126.43	750.000	1700.000	
BENZO(G,H,I)PERYLENE	UG/KG	4/10	10	4/10	47.000-270.000	125.75	360.000	1700.000	
BENZO(K)FLUORANTHENE	UG/KG	7/10	10	7/10	38.000-250.000	96.57	750.000	1700.000	
BENZOIC ACID	UG/KG	0/9	9	0/9			910.000	8400.000	
BENZYL ALCOHOL	UG/KG	0/9	9	0/9			360.000	1700.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/9	9	0/9			360.000	1700.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/9	9	0/9			360.000	1700.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	1/9	9	1/9	48.000-48.000	48.00	360.000	1700.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	3/10	10	3/10	45.000-100.000	72.67	370.000	1700.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/10	10	0/10			360.000	1700.000	
CARBAZOLE	UG/KG	1/5	5	1/5	65.000-65.000	65.00	360.000	440.000	
CHRYSENE	UG/KG	7/10	10	7/10	73.000-350.000	148.57	750.000	1700.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/10	10	1/10	240.000-240.000	240.00	360.000	750.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/10	10	0/10			360.000	1700.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	1/10	10	1/10	66.000-66.000	66.00	360.000	1700.000	
DIBENZOFURAN	UG/KG	3/9	9	3/9	81.000-440.000	217.00	360.000	1700.000	
DIETHYL PHTHALATE	UG/KG	0/9	9	0/9			360.000	1700.000	
DIMETHYL PHTHALATE	UG/KG	0/9	9	0/9			360.000	1700.000	
FLUORANTHENE	UG/KG	8/10	10	8/10	69.000-460.000	187.50	750.000	1700.000	
FLUORENE	UG/KG	1/9	9	1/9	110.000-110.000	110.00	360.000	1700.000	
HEXACHLOROBENZENE	UG/KG	0/9	9	0/9			360.000	1700.000	
HEXACHLOROBUTADIENE	UG/KG	0/9	9	0/9			360.000	1700.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/9	9	0/9			360.000	1700.000	
HEXACHLOROETHANE	UG/KG	0/9	9	0/9			360.000	1700.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	5/10	10	5/10	42.000-280.000	100.80	390.000	1700.000	
ISOPHORONE	UG/KG	0/9	9	0/9			360.000	1700.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/9	9	0/9			360.000	1700.000	
N-NITROSODIPHENYLAMINE	UG/KG	1/9	9	1/9	120.000-120.000	120.00	360.000	1700.000	
NAPHTHALENE	UG/KG	5/9	9	5/9	66.000-940.000	345.00	360.000	1700.000	
NITROBENZENE	UG/KG	0/9	9	0/9			360.000	1700.000	
P-CHLOROANILINE	UG/KG	0/9	9	0/9			360.000	1700.000	
PENTACHLOROPHENOL	UG/KG	0/9	9	0/9			910.000	8400.000	
PHENANTHRENE	UG/KG	10/10	10	10/10	69.000-1100.000	293.00			
PHENOL	UG/KG	0/9	9	0/9			360.000	1700.000	
PYRENE	UG/KG	7/10	10	7/10	83.000-450.000	200.43	74.000	1700.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	1500.000	
1,2-DICHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	1500.000	
1,3-DICHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	1500.000	
1,4-DICHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	1500.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/15	15	0/15			1800.000	7100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	
2,4-DICHLOROPHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	
2,4-DIMETHYLPHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	
2,4-DINITROPHENOL	UG/KG	0/15	15	0/15			1800.000	7100.000	
2,4-DINITROTOLUENE	UG/KG	0/15	15	0/15			370.000	1500.000	
2,6-DINITROTOLUENE	UG/KG	0/15	15	0/15			370.000	1500.000	
2-CHLORONAPHTHALENE	UG/KG	0/15	15	0/15			370.000	1500.000	
2-CHLOROPHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	
2-METHYLNAPHTHALENE	UG/KG	8/15	15	8/15	56.000-680.000	349.50	380.000	1500.000	
2-METHYLPHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	
2-NITROANILINE	UG/KG	0/15	15	0/15			1800.000	7100.000	
2-NITROPHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/15	15	0/15			740.000	2900.000	
3-NITROANILINE	NONE	0/15	15	0/15			1800.000	7100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/15	15	0/15			1800.000	7100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/15	15	0/15			370.000	1500.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/15	15	0/15			370.000	1500.000	
4-METHYLPHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	
4-NITROANILINE	UG/KG	0/15	15	0/15			1800.000	7100.000	
4-NITROPHENOL	UG/KG	0/15	15	0/15			1800.000	7100.000	
ACENAPHTHENE	UG/KG	0/15	15	0/15			370.000	1500.000	
ACENAPHTHYLENE	UG/KG	0/15	15	0/15			370.000	1500.000	
ANTHRACENE	UG/KG	0/15	15	0/15			370.000	1500.000	
BENZO(A)ANTHRACENE	UG/KG	3/15	15	3/15	48.000-130.000	90.00	380.000	1500.000	
BENZO(A)PYRENE	UG/KG	0/15	15	0/15			370.000	1500.000	
BENZO(B)FLUORANTHENE	UG/KG	1/15	15	1/15	45.000-45.000	45.00	380.000	1500.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/15	15	0/15			370.000	1500.000	
BENZO(K)FLUORANTHENE	UG/KG	0/15	15	0/15			370.000	1500.000	
BENZOIC ACID	UG/KG	0/15	15	0/15			1800.000	7100.000	
BENZYL ALCOHOL	UG/KG	0/15	15	0/15			370.000	1500.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/15	15	0/15			370.000	1500.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/15	15	0/15			370.000	1500.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/12	12	0/12			370.000	1500.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	6/15	15	6/15	140.000-7100.000	2285.00	380.000	1500.000	
BUTYL BENZYL PHTHALATE	UG/KG	1/15	15	1/15	75.000-75.000	75.00	370.000	1500.000	
CHRYSENE	UG/KG	1/15	15	1/15	70.000-70.000	70.00	380.000	1500.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/15	15	1/15	47.000-47.000	47.00	370.000	1500.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/15	15	0/15			370.000	1500.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/15	15	0/15			370.000	1500.000	
DIBENZOFURAN	UG/KG	4/15	15	4/15	50.000-160.000	106.00	380.000	1500.000	
DIETHYL PHTHALATE	UG/KG	0/15	15	0/15			370.000	1500.000	
DIMETHYL PHTHALATE	UG/KG	0/15	15	0/15			370.000	1500.000	
FLUORANTHENE	UG/KG	4/15	15	4/15	51.000-130.000	81.00	380.000	1500.000	
FLUORENE	UG/KG	0/15	15	0/15			370.000	1500.000	
HEXACHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	1500.000	
HEXACHLOROBUTADIENE	UG/KG	1/15	15	1/15	430.000-430.000	430.00	370.000	1500.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/15	15	0/15			370.000	1500.000	
HEXACHLOROETHANE	UG/KG	0/15	15	0/15			370.000	1500.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/15	15	0/15			370.000	1500.000	
ISOPHORONE	UG/KG	0/15	15	0/15			370.000	1500.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/15	15	0/15			370.000	1500.000	
N-NITROSODIPHENYLAMINE	UG/KG	1/15	15	1/15	43.000-43.000	43.00	370.000	1500.000	
NAPHTHALENE	UG/KG	7/15	15	7/15	66.000-390.000	213.14	380.000	1500.000	
NITROBENZENE	UG/KG	0/15	15	0/15			370.000	1500.000	
P-CHLOROANILINE	UG/KG	0/15	15	0/15			370.000	1500.000	
PENTACHLOROPHENOL	UG/KG	0/15	15	0/15			1800.000	7100.000	
PHENANTHRENE	UG/KG	8/15	15	8/15	57.000-450.000	221.38	380.000	1500.000	
PHENOL	UG/KG	0/15	15	0/15			370.000	1500.000	
PYRENE	UG/KG	4/15	15	4/15	59.000-140.000	87.75	380.000	1500.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/6	6	0/6			350.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/6	6	0/6			350.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/6	6	0/6			350.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/6	6	0/6			350.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/5	5	0/5			870.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/5	5	0/5			350.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/5	5	0/5			350.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/5	5	0/5			350.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/5	5	0/5			870.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/6	6	0/6			350.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/6	6	0/6			350.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/6	6	0/6			350.000	410.000	
2-CHLOROPHENOL	UG/KG	0/5	5	0/5			350.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/6	6	0/6			350.000	410.000	
2-METHYLPHENOL	UG/KG	0/5	5	0/5			350.000	410.000	
2-NITROANILINE	UG/KG	0/6	6	0/6			870.000	1000.000	
2-NITROPHENOL	UG/KG	0/5	5	0/5			350.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/6	6	0/6			350.000	410.000	
3-NITROANILINE	NONE	0/6	6	0/6			870.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/5	5	0/5			870.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/6	6	0/6			350.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/5	5	0/5			350.000	410.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/6	6	0/6			350.000	410.000	
4-METHYLPHENOL	UG/KG	0/5	5	0/5			350.000	410.000	
4-NITROANILINE	UG/KG	0/6	6	0/6			870.000	1000.000	
4-NITROPHENOL	UG/KG	0/5	5	0/5			870.000	1000.000	
ACENAPHTHENE	UG/KG	0/6	6	0/6			350.000	410.000	
ACENAPHTHYLENE	UG/KG	0/6	6	0/6			350.000	410.000	
ANTHRACENE	UG/KG	0/6	6	0/6			350.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/6	6	0/6			350.000	410.000	
BENZO(A)PYRENE	UG/KG	0/6	6	0/6			350.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/6	6	0/6			350.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/6	6	0/6			350.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/6	6	0/6			350.000	410.000	
BENZOIC ACID	UG/KG	0/6	6	0/6			870.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/6	6	0/6			350.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/6	6	0/6			350.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/6	6	0/6			350.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/6	6	0/6			350.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/6	6	1/6	52.000-52.000	52.00	350.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/6	6	0/6			350.000	410.000	
CARBAZOLE	UG/KG	0/5	5	0/5			350.000	410.000	
CHRYSENE	UG/KG	0/6	6	0/6			350.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/6	6	0/6			350.000	410.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/6	6	0/6			350.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/6	6	0/6			350.000	410.000	
DIBENZOFURAN	UG/KG	0/6	6	0/6			350.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/6	6	0/6			350.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/6	6	0/6			350.000	410.000	
FLUORANTHENE	UG/KG	0/6	6	0/6			350.000	410.000	
FLUORENE	UG/KG	0/6	6	0/6			350.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/6	6	0/6			350.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/6	6	0/6			350.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/6	6	0/6			350.000	410.000	
HEXACHLOROETHANE	UG/KG	0/6	6	0/6			350.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/6	6	0/6			350.000	410.000	
ISOPHORONE	UG/KG	0/6	6	0/6			350.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/6	6	0/6			350.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/6	6	0/6			350.000	410.000	
NAPHTHALENE	UG/KG	0/6	6	0/6			350.000	410.000	
NITROBENZENE	UG/KG	0/6	6	0/6			350.000	410.000	
P-CHLOROANILINE	UG/KG	0/6	6	0/6			350.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/5	5	0/5			870.000	1000.000	
PHENANTHRENE	UG/KG	1/6	6	1/6	52.000-52.000	52.00	350.000	410.000	
PHENOL	UG/KG	0/5	5	0/5			350.000	410.000	
PYRENE	UG/KG	0/6	6	0/6			350.000	410.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	1/16	16	1/16	220.000-220.000	220.00	330.000	830.000	
1,2-DICHLOROBENZENE	UG/KG	0/16	16	0/16			330.000	830.000	
1,3-DICHLOROBENZENE	UG/KG	0/16	16	0/16			330.000	830.000	
1,4-DICHLOROBENZENE	UG/KG	1/16	16	1/16	210.000-210.000	210.00	330.000	830.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/16	16	0/16			950.000	4000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/16	16	0/16			330.000	830.000	
2,4-DICHLOROPHENOL	UG/KG	0/16	16	0/16			330.000	830.000	
2,4-DIMETHYLPHENOL	UG/KG	0/16	16	0/16			330.000	830.000	
2,4-DINITROPHENOL	UG/KG	0/16	16	0/16			950.000	4000.000	
2,4-DINITROTOLUENE	UG/KG	1/16	16	1/16	110.000-110.000	110.00	330.000	830.000	
2,6-DINITROTOLUENE	UG/KG	0/16	16	0/16			330.000	830.000	
2-CHLORONAPHTHALENE	UG/KG	0/16	16	0/16			330.000	830.000	
2-CHLOROPHENOL	UG/KG	1/16	16	1/16	390.000-390.000	390.00	330.000	830.000	
2-METHYLNAPHTHALENE	UG/KG	2/16	16	2/16	50.000-200.000	125.00	380.000	830.000	
2-METHYLPHENOL	UG/KG	0/16	16	0/16			330.000	830.000	
2-NITROANILINE	UG/KG	0/16	16	0/16			950.000	4000.000	
2-NITROPHENOL	UG/KG	0/16	16	0/16			330.000	830.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/16	16	0/16			380.000	1700.000	
3-NITROANILINE	NONE	0/16	16	0/16			950.000	4000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/16	16	0/16			950.000	4000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/16	16	0/16			330.000	830.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/16	16	0/16			330.000	830.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/16	16	0/16			330.000	830.000	
4-METHYLPHENOL	UG/KG	0/16	16	0/16			330.000	830.000	
4-NITROANILINE	UG/KG	0/16	16	0/16			950.000	4000.000	
4-NITROPHENOL	UG/KG	1/16	16	1/16	330.000-330.000	330.00	950.000	4000.000	
ACENAPHTHENE	UG/KG	1/16	16	1/16	250.000-250.000	250.00	330.000	830.000	
ACENAPHTHYLENE	UG/KG	0/16	16	0/16			330.000	830.000	
ANTHRACENE	UG/KG	0/16	16	0/16			330.000	830.000	
BENZO(A)ANTHRACENE	UG/KG	1/16	16	1/16	38.000-38.000	38.00	380.000	830.000	
BENZO(A)PYRENE	UG/KG	0/16	16	0/16			330.000	830.000	
BENZO(B)FLUORANTHENE	UG/KG	1/16	16	1/16	39.000-39.000	39.00	380.000	830.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/16	16	0/16			330.000	830.000	
BENZO(K)FLUORANTHENE	UG/KG	0/16	16	0/16			330.000	830.000	
BENZOIC ACID	UG/KG	0/16	16	0/16			950.000	4000.000	
BENZYL ALCOHOL	UG/KG	0/16	16	0/16			330.000	830.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/16	16	0/16			330.000	830.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/16	16	0/16			330.000	830.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/13	13	0/13			330.000	830.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	8/16	16	8/16	55.000-5900.000	1655.75	330.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/16	16	0/16			330.000	830.000	
CARBAZOLE	UG/KG	0/4	4	0/4			380.000	420.000	
CHRYSENE	UG/KG	1/16	16	1/16	47.000-47.000	47.00	380.000	830.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/16	16	0/16			330.000	830.000	

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/16	16	0/16			330.000	830.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/16	16	0/16			330.000	830.000	
DIBENZOFURAN	UG/KG	1/16	16	1/16	36.000-36.000	36.00	380.000	830.000	
DIETHYL PHTHALATE	UG/KG	1/16	16	1/16	250.000-250.000	250.00	330.000	430.000	
DIMETHYL PHTHALATE	UG/KG	0/16	16	0/16			330.000	830.000	
FLUORANTHENE	UG/KG	1/16	16	1/16	53.000-53.000	53.00	380.000	830.000	
FLUORENE	UG/KG	0/16	16	0/16			330.000	830.000	
HEXACHLOROBENZENE	UG/KG	0/16	16	0/16			330.000	830.000	
HEXACHLOROBUTADIENE	UG/KG	0/16	16	0/16			330.000	830.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/16	16	0/16			330.000	830.000	
HEXACHLOROETHANE	UG/KG	0/16	16	0/16			330.000	830.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/16	16	0/16			330.000	830.000	
ISOPHORONE	UG/KG	1/16	16	1/16	190.000-190.000	190.00	330.000	830.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/16	16	0/16			330.000	830.000	
N-NITROSODIPHENYLAMINE	UG/KG	1/16	16	1/16	120.000-120.000	120.00	380.000	830.000	
NAPHTHALENE	UG/KG	0/16	16	0/16			330.000	830.000	
NITROBENZENE	UG/KG	0/16	16	0/16			330.000	830.000	
P-CHLOROANILINE	UG/KG	1/16	16	1/16	49.000-49.000	49.00	950.000	4000.000	
PENTACHLOROPHENOL	UG/KG	2/16	16	2/16	68.000-100.000	84.00	380.000	830.000	
PHENANTHRENE	UG/KG	1/16	16	1/16	380.000-380.000	380.00	330.000	830.000	
PHENOL	UG/KG	2/16	16	2/16	55.000-240.000	147.50	380.000	830.000	
PYRENE									

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/13	13	0/13			370.000	460.000	
1,2-DICHLOROBENZENE	UG/KG	0/13	13	0/13			370.000	460.000	
1,3-DICHLOROBENZENE	UG/KG	0/13	13	0/13			370.000	460.000	
1,4-DICHLOROBENZENE	UG/KG	0/13	13	0/13			370.000	460.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/13	13	0/13			940.000	2200.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/13	13	0/13			370.000	460.000	
2,4-DICHLOROPHENOL	UG/KG	0/13	13	0/13			370.000	460.000	
2,4-DIMETHYLPHENOL	UG/KG	0/13	13	0/13			370.000	460.000	
2,4-DINITROPHENOL	UG/KG	0/13	13	0/13			940.000	2200.000	
2,4-DINITROTOLUENE	UG/KG	0/13	13	0/13			370.000	460.000	
2,6-DINITROTOLUENE	UG/KG	0/13	13	0/13			370.000	460.000	
2-CHLORONAPHTHALENE	UG/KG	0/13	13	0/13			370.000	460.000	
2-CHLOROPHENOL	UG/KG	0/13	13	0/13			370.000	460.000	
2-METHYLNAPHTHALENE	UG/KG	1/13	13	1/13	55.000-55.000	55.00	370.000	460.000	
2-METHYLPHENOL	UG/KG	0/13	13	0/13			370.000	460.000	
2-NITROANILINE	UG/KG	0/13	13	0/13			940.000	2200.000	
2-NITROPHENOL	UG/KG	0/13	13	0/13			370.000	460.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/13	13	0/13			370.000	920.000	
3-NITROANILINE	NONE	0/13	13	0/13			940.000	2200.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/13	13	0/13			940.000	2200.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/13	13	0/13			370.000	460.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/13	13	0/13			370.000	460.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/13	13	0/13			370.000	460.000	
4-METHYLPHENOL	UG/KG	0/13	13	0/13			370.000	460.000	
4-NITROANILINE	UG/KG	0/13	13	0/13			940.000	2200.000	
4-NITROPHENOL	UG/KG	0/13	13	0/13			940.000	2200.000	
ACENAPHTHENE	UG/KG	0/13	13	0/13			370.000	460.000	
ACENAPHTHYLENE	UG/KG	0/13	13	0/13			370.000	460.000	
ANTHRACENE	UG/KG	0/13	13	0/13			370.000	460.000	
BENZO(A)ANTHRACENE	UG/KG	0/13	13	0/13			370.000	460.000	
BENZO(A)PYRENE	UG/KG	0/13	13	0/13			370.000	460.000	
BENZO(B)FLUORANTHENE	UG/KG	0/13	13	0/13			370.000	460.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/13	13	0/13			370.000	460.000	
BENZO(K)FLUORANTHENE	UG/KG	0/13	13	0/13			370.000	460.000	
BENZOIC ACID	UG/KG	0/13	13	0/13			940.000	2200.000	
BENZYL ALCOHOL	UG/KG	0/13	13	0/13			370.000	460.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/13	13	0/13			370.000	460.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/13	13	0/13			370.000	460.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/11	11	0/11			370.000	460.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	5/13	13	5/13	140.000-6000.000	3188.00	370.000	450.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/13	13	0/13			370.000	460.000	
CARBAZOLE	UG/KG	0/3	3	0/3			370.000	450.000	
CHRYSENE	UG/KG	0/13	13	0/13			370.000	460.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/13	13	0/13			370.000	460.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/13	13	0/13			370.000	460.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/13	13	0/13			370.000	460.000	
DIBENZOFURAN	UG/KG	0/13	13	0/13			370.000	460.000	
DIETHYL PHTHALATE	UG/KG	0/13	13	0/13			370.000	460.000	
DIMETHYL PHTHALATE	UG/KG	0/13	13	0/13			370.000	460.000	
FLUORANTHENE	UG/KG	0/13	13	0/13			370.000	460.000	
FLUORENE	UG/KG	0/13	13	0/13			370.000	460.000	
HEXACHLOROBENZENE	UG/KG	0/13	13	0/13			370.000	460.000	
HEXACHLOROBUTADIENE	UG/KG	0/13	13	0/13			370.000	460.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/13	13	0/13			370.000	460.000	
HEXACHLOROETHANE	UG/KG	0/13	13	0/13			370.000	460.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/13	13	0/13			370.000	460.000	
ISOPHORONE	UG/KG	0/13	13	0/13			370.000	460.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/13	13	0/13			370.000	460.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/13	13	0/13			370.000	460.000	
NAPHTHALENE	UG/KG	0/13	13	0/13			370.000	460.000	
NITROBENZENE	UG/KG	0/13	13	0/13			370.000	460.000	
P-CHLOROANILINE	UG/KG	0/13	13	0/13			370.000	460.000	
PENTACHLOROPHENOL	UG/KG	0/13	13	0/13			940.000	2200.000	
PHENANTHRENE	UG/KG	0/13	13	0/13			370.000	460.000	
PHENOL	UG/KG	0/13	13	0/13			370.000	460.000	
PYRENE	UG/KG	0/13	13	0/13			370.000	460.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			920.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			920.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			370.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			370.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			370.000	410.000	
2-CHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/4	4	0/4			370.000	410.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			920.000	1900.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/4	4	0/4			370.000	780.000	
3-NITROANILINE	NONE	0/4	4	0/4			920.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			920.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			370.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			370.000	410.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
4-NITROANILINE	UG/KG	0/4	4	0/4			920.000	1900.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			920.000	1900.000	
ACENAPHTHENE	UG/KG	0/4	4	0/4			370.000	410.000	
ACENAPHTHYLENE	UG/KG	0/4	4	0/4			370.000	410.000	
ANTHRACENE	UG/KG	0/4	4	0/4			370.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/4	4	0/4			370.000	410.000	
BENZO(A)PYRENE	UG/KG	0/4	4	0/4			370.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/4	4	0/4			370.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/4	4	0/4			370.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/4	4	0/4			370.000	410.000	
BENZOIC ACID	UG/KG	0/4	4	0/4			920.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/4	4	0/4			370.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			370.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			370.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			370.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/4	4	1/4	94.000-94.000	94.00	370.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	410.000	
CARBAZOLE	UG/KG	0/2	2	0/2			370.000	380.000	
CHRYSENE	UG/KG	0/4	4	0/4			370.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	410.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/4	4	0/4			370.000	410.000	
DIBENZOFURAN	UG/KG	0/4	4	0/4			370.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	410.000	
FLUORANTHENE	UG/KG	0/4	4	0/4			370.000	410.000	
FLUORENE	UG/KG	0/4	4	0/4			370.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			370.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			370.000	410.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			370.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/4	4	0/4			370.000	410.000	
ISOPHORONE	UG/KG	0/4	4	0/4			370.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/4	4	0/4			370.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			370.000	410.000	
NAPHTHALENE	UG/KG	0/4	4	0/4			370.000	410.000	
NITROBENZENE	UG/KG	0/4	4	0/4			370.000	410.000	
P-CHLOROANILINE	UG/KG	0/4	4	0/4			370.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
PHENANTHRENE	UG/KG	0/4	4	0/4			920.000	1900.000	
PHENOL	UG/KG	0/4	4	0/4			370.000	410.000	
PYRENE	UG/KG	0/4	4	0/4			370.000	410.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			770.000	770.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/9	9	0/9			3.600	360.000	
4,4'-DDE	UG/KG	0/9	9	0/9			3.600	360.000	
4,4'-DDT	UG/KG	0/9	9	0/9			3.600	360.000	
ALDRIN	UG/KG	0/9	9	0/9			1.800	180.000	
ALPHA-BHC	UG/KG	0/9	9	0/9			1.800	180.000	
ALPHA-CHLORDANE	UG/KG	0/9	9	0/9			1.800	1800.000	
AROCLOR-1016	UG/KG	0/9	9	0/9			36.000	1800.000	
AROCLOR-1221	UG/KG	0/9	9	0/9			73.000	1800.000	
AROCLOR-1232	UG/KG	0/9	9	0/9			36.000	1800.000	
AROCLOR-1242	UG/KG	0/9	9	0/9			36.000	1800.000	
AROCLOR-1248	UG/KG	0/9	9	0/9			36.000	1800.000	
AROCLOR-1254	UG/KG	4/9	8	4/9	45.000-11000.000	3361.25	36.000	950.000	
AROCLOR-1260	UG/KG	3/9	9	3/9	230.000-2800.000	1196.67	36.000	950.000	
BETA-BHC	UG/KG	0/9	9	0/9			1.800	180.000	
DELTA-BHC	UG/KG	0/9	9	0/9			1.800	180.000	
DIELDRIN	UG/KG	0/9	9	0/9			3.600	360.000	
ENDOSULFAN II	UG/KG	0/9	9	0/9			3.600	360.000	
ENDOSULFAN SULFATE	UG/KG	0/9	9	0/9			3.600	360.000	
ENDOSULFAN-I	UG/KG	0/9	9	0/9			1.800	180.000	
ENDRIN	UG/KG	1/9	9	1/9	5.000-5.000	5.00	3.600	360.000	
ENDRIN ALDEHYDE	UG/KG	0/6	6	0/6			3.600	4.300	
ENDRIN KETONE	UG/KG	0/9	9	0/9			3.600	360.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/9	9	0/9			1.800	180.000	
GAMMA-CHLORDANE	UG/KG	0/9	9	0/9			1.800	1800.000	
HEPTACHLOR	UG/KG	0/9	9	0/9			1.800	180.000	
HEPTACHLOR EPOXIDE	UG/KG	0/9	9	0/9			1.800	180.000	
METHOXYCHLOR	UG/KG	0/9	9	0/9			18.000	1800.000	
TOXAPHENE	UG/KG	0/9	9	0/9			180.000	3600.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/14	14	0/14			18.000	210.000	
4,4'-DDE	UG/KG	0/14	14	0/14			18.000	210.000	
4,4'-DDT	UG/KG	0/14	14	0/14			18.000	210.000	
ALDRIN	UG/KG	0/14	14	0/14			9.000	100.000	
ALPHA-BHC	UG/KG	0/14	14	0/14			9.000	100.000	
ALPHA-CHLORDANE	UG/KG	0/14	14	0/14			90.000	1000.000	
AROCLOR-1016	UG/KG	0/14	14	0/14			90.000	1000.000	
AROCLOR-1221	UG/KG	0/14	14	0/14			90.000	1000.000	
AROCLOR-1232	UG/KG	0/14	14	0/14			90.000	1000.000	
AROCLOR-1242	UG/KG	0/14	14	0/14			90.000	1000.000	
AROCLOR-1248	UG/KG	0/14	14	0/14			90.000	1000.000	
AROCLOR-1254	UG/KG	9/14	14	9/14	36.000-960.000	261.89	350.000	970.000	
AROCLOR-1260	UG/KG	5/15	15	5/15	120.000-370.000	216.00	180.000	2100.000	
BETA-BHC	UG/KG	1/14	14	1/14	78.000-78.000	78.00	9.000	100.000	
DELTA-BHC	UG/KG	0/14	14	0/14			9.000	100.000	
DIELDRIN	UG/KG	0/14	14	0/14			18.000	210.000	
ENDOSULFAN II	UG/KG	0/14	14	0/14			18.000	210.000	
ENDOSULFAN SULFATE	UG/KG	0/14	14	0/14			18.000	210.000	
ENDOSULFAN-I	UG/KG	0/14	14	0/14			9.000	100.000	
ENDRIN	UG/KG	0/14	14	0/14			18.000	210.000	
ENDRIN KETONE	UG/KG	0/14	14	0/14			18.000	210.000	
GAMMA-BHC (LINDANE)	UG/KG	0/14	14	0/14			9.000	100.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-CHLORDANE	UG/KG	0/14	14	0/14			90.000	1000.000	
HEPTACHLOR	UG/KG	0/14	14	0/14			9.000	100.000	
HEPTACHLOR EPOXIDE	UG/KG	0/14	14	0/14			9.000	100.000	
METHOXYCHLOR	UG/KG	0/14	14	0/14			90.000	1000.000	
TOXAPHENE	UG/KG	0/14	14	0/14			180.000	2100.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/7	5	0/7			3.500	200.000	
4,4'-DDE	UG/KG	0/7	5	0/7			3.500	200.000	
4,4'-DDT	UG/KG	0/7	5	0/7			3.500	200.000	
ALDRIN	UG/KG	0/7	5	0/7			1.800	100.000	
ALPHA-BHC	UG/KG	0/7	5	0/7			1.800	100.000	
ALPHA-CHLORDANE	UG/KG	0/7	5	0/7			1.800	100.000	
AROCLOR-1016	UG/KG	0/7	5	0/7			35.000	2000.000	
AROCLOR-1221	UG/KG	0/7	5	0/7			37.000	4000.000	
AROCLOR-1232	UG/KG	0/7	5	0/7			35.000	2000.000	
AROCLOR-1242	UG/KG	0/7	5	0/7			35.000	2000.000	
AROCLOR-1248	UG/KG	0/7	5	0/7			35.000	2000.000	
AROCLOR-1254	UG/KG	2/7	5	2/7	3000.000-3200.000	3100.00	35.000	41.000	
AROCLOR-1260	UG/KG	0/7	5	0/7			35.000	2000.000	
BETA-BHC	UG/KG	0/7	5	0/7			1.800	100.000	
DELTA-BHC	UG/KG	0/7	5	0/7			1.800	100.000	
DIELDRIN	UG/KG	0/7	5	0/7			3.500	200.000	
ENDOSULFAN II	UG/KG	0/7	5	0/7			3.500	200.000	
ENDOSULFAN SULFATE	UG/KG	0/7	5	0/7			3.500	200.000	
ENDOSULFAN-I	UG/KG	0/7	5	0/7			1.800	100.000	
ENDRIN	UG/KG	0/7	5	0/7			3.500	200.000	
ENDRIN ALDEHYDE	UG/KG	1/7	5	1/7	8.700-8.700	8.70	3.500	200.000	
ENDRIN KETONE	UG/KG	0/7	5	0/7			3.500	200.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/7	5	0/7			1.800	100.000	
GAMMA-CHLORDANE	UG/KG	0/7	5	0/7			1.800	100.000	
HEPTACHLOR	UG/KG	0/7	5	0/7			1.800	100.000	
HEPTACHLOR EPOXIDE	UG/KG	0/7	5	0/7			1.800	100.000	
METHOXYCHLOR	UG/KG	0/7	5	0/7			18.000	1000.000	
TOXAPHENE	UG/KG	0/7	5	0/7			180.000	10000.000	

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/17	14	0/17			3.800	110.000	
4,4'-DDE	UG/KG	0/17	14	0/17			3.800	110.000	
4,4'-DDT	UG/KG	0/17	14	0/17			3.800	110.000	
ALDRIN	UG/KG	0/17	14	0/17			2.000	53.000	
ALPHA-BHC	UG/KG	0/17	14	0/17			2.000	53.000	
ALPHA-CHLORDANE	UG/KG	0/17	14	0/17			2.000	530.000	
AROCLOR-1016	UG/KG	0/17	14	0/17			38.000	970.000	
AROCLOR-1221	UG/KG	0/17	14	0/17			77.000	2000.000	
AROCLOR-1232	UG/KG	0/17	14	0/17			38.000	970.000	
AROCLOR-1242	UG/KG	0/17	14	0/17			38.000	970.000	
AROCLOR-1248	UG/KG	0/17	14	0/17			38.000	970.000	
AROCLOR-1254	UG/KG	2/17	14	2/17	1400.000-1700.000	1550.00	38.000	1100.000	
AROCLOR-1260	UG/KG	0/17	14	0/17			38.000	1100.000	
BETA-BHC	UG/KG	0/17	14	0/17			2.000	53.000	
DELTA-BHC	UG/KG	0/17	14	0/17			2.000	53.000	
DIELDRIN	UG/KG	0/17	14	0/17			3.800	110.000	
ENDOSULFAN II	UG/KG	0/17	14	0/17			3.800	110.000	
ENDOSULFAN SULFATE	UG/KG	0/17	14	0/17			3.800	110.000	
ENDOSULFAN-I	UG/KG	0/17	14	0/17			2.000	53.000	
ENDRIN	UG/KG	0/17	14	0/17			3.800	110.000	
ENDRIN ALDEHYDE	UG/KG	1/6	3	1/6	5.000-5.000	5.00	3.800	97.000	
ENDRIN KETONE	UG/KG	0/17	14	0/17			3.800	110.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/17	14	0/17			2.000	53.000	
GAMMA-CHLORDANE	UG/KG	0/17	14	0/17			2.000	530.000	
HEPTACHLOR	UG/KG	0/17	14	0/17			2.000	53.000	
HEPTACHLOR EPOXIDE	UG/KG	0/17	14	0/17			2.000	53.000	
METHOXYCHLOR	UG/KG	0/17	14	0/17			20.000	530.000	
TOXAPHENE	UG/KG	0/17	14	0/17			190.000	5000.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/13	13	0/13			3.700	46.000	
4,4'-DDE	UG/KG	0/13	13	0/13			3.700	46.000	
4,4'-DDT	UG/KG	0/13	13	0/13			3.700	46.000	
ALDRIN	UG/KG	0/13	13	0/13			1.900	23.000	
ALPHA-BHC	UG/KG	0/13	13	0/13			1.900	23.000	
ALPHA-CHLORDANE	UG/KG	0/13	13	0/13			1.900	230.000	
AROCLOR-1016	UG/KG	0/13	13	0/13			37.000	230.000	
AROCLOR-1221	UG/KG	0/13	13	0/13			75.000	230.000	
AROCLOR-1232	UG/KG	0/13	13	0/13			37.000	230.000	
AROCLOR-1242	UG/KG	0/13	13	0/13			37.000	230.000	
AROCLOR-1248	UG/KG	1/13	13	1/13	110.000-110.000	110.00	37.000	230.000	
AROCLOR-1254	UG/KG	1/13	13	1/13	130.000-130.000	130.00	37.000	460.000	
AROCLOR-1260	UG/KG	1/13	13	1/13	210.000-210.000	210.00	37.000	460.000	
BETA-BHC	UG/KG	0/13	13	0/13			1.900	23.000	
DELTA-BHC	UG/KG	0/13	13	0/13			1.900	23.000	
DIELDRIN	UG/KG	0/13	13	0/13			3.700	46.000	
ENDOSULFAN II	UG/KG	0/13	13	0/13			3.700	46.000	
ENDOSULFAN SULFATE	UG/KG	0/13	13	0/13			3.700	46.000	
ENDOSULFAN-I	UG/KG	0/13	13	0/13			1.900	23.000	
ENDRIN	UG/KG	0/13	13	0/13			3.700	46.000	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.700	4.500	
ENDRIN KETONE	UG/KG	0/13	13	0/13			3.700	46.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/13	13	0/13			1.900	23.000	
GAMMA-CHLORDANE	UG/KG	0/13	13	0/13			1.900	230.000	
HEPTACHLOR	UG/KG	0/13	13	0/13			1.900	23.000	
HEPTACHLOR EPOXIDE	UG/KG	0/13	13	0/13			1.900	23.000	
METHOXYCHLOR	UG/KG	0/13	13	0/13			19.000	230.000	
TOXAPHENE	UG/KG	0/13	13	0/13			190.000	460.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/4	4	0/4			3.700	19.000	
4,4'-DDE	UG/KG	0/4	4	0/4			3.700	19.000	
4,4'-DDT	UG/KG	0/4	4	0/4			3.700	19.000	
ALDRIN	UG/KG	0/4	4	0/4			1.900	9.500	
ALPHA-BHC	UG/KG	0/4	4	0/4			1.900	9.500	
ALPHA-CHLORDANE	UG/KG	0/4	4	0/4			1.900	95.000	
AROCLOR-1016	UG/KG	0/4	4	0/4			37.000	95.000	
AROCLOR-1221	UG/KG	0/4	4	0/4			74.000	95.000	
AROCLOR-1232	UG/KG	0/4	4	0/4			37.000	95.000	
AROCLOR-1242	UG/KG	0/4	4	0/4			37.000	95.000	
AROCLOR-1248	UG/KG	0/4	4	0/4			37.000	95.000	
AROCLOR-1254	UG/KG	1/4	4	1/4	77.000-77.000	77.00	37.000	190.000	
AROCLOR-1260	UG/KG	0/4	4	0/4			37.000	190.000	
BETA-BHC	UG/KG	0/4	4	0/4			1.900	9.500	
DELTA-BHC	UG/KG	0/4	4	0/4			1.900	9.500	
DIELDRIN	UG/KG	0/4	4	0/4			3.700	19.000	
ENDOSULFAN II	UG/KG	0/4	4	0/4			3.700	19.000	
ENDOSULFAN SULFATE	UG/KG	0/4	4	0/4			3.700	19.000	
ENDOSULFAN-I	UG/KG	0/4	4	0/4			1.900	9.500	
ENDRIN	UG/KG	0/4	4	0/4			3.700	19.000	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			3.700	4.100	
ENDRIN KETONE	UG/KG	0/4	4	0/4			3.700	19.000	

001066

5699

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/4	4	0/4			1.900	9.500	
GAMMA-CHLORDANE	UG/KG	0/4	4	0/4			1.900	95.000	
HEPTACHLOR	UG/KG	0/4	4	0/4			1.900	9.500	
HEPTACHLOR EPOXIDE	UG/KG	0/4	4	0/4			1.900	9.500	
METHOXYCHLOR	UG/KG	0/4	4	0/4			19.000	95.000	
TOXAPHENE	UG/KG	0/4	4	0/4			190.000	210.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			18.000	18.000	
4,4'-DDE	UG/KG	0/1	1	0/1			18.000	18.000	
4,4'-DDT	UG/KG	0/1	1	0/1			18.000	18.000	
ALDRIN	UG/KG	0/1	1	0/1			9.200	9.200	
ALPHA-BHC	UG/KG	0/1	1	0/1			9.200	9.200	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			180.000	180.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			180.000	180.000	
BETA-BHC	UG/KG	0/1	1	0/1			9.200	9.200	
DELTA-BHC	UG/KG	0/1	1	0/1			9.200	9.200	
DIELDRIN	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			9.200	9.200	
ENDRIN	UG/KG	0/1	1	0/1			18.000	18.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			18.000	18.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			9.200	9.200	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			92.000	92.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			9.200	9.200	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			9.200	9.200	
METHOXYCHLOR	UG/KG	0/1	1	0/1			92.000	92.000	
TOXAPHENE	UG/KG	0/1	1	0/1			180.000	180.000	

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AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 0 - .5 FEET									
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/2	2	0/2			32.000	140.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/2	2	0/2			59.000	150.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			230.000	420.000	
HEPTACHLORODIBENZOFURANS	NG/G	1/2	2	1/2	320.000-320.000	320.00	320.000	320.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			170.000	270.000	
HEXACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			270.000	420.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	2/2	2	2/2	610.000-1100.000	855.00			
OCTACHLORODIBENZOFURAN	NG/G	1/2	2	1/2	1300.000-1300.000	1300.00	540.000	540.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			220.000	370.000	
PENTACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			160.000	310.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			140.000	350.000	
TETRACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			120.000	160.000	

AREA: Graphite Furnace, Oil Burner, and Coal Pile Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: .5 - 1 FEET									
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/2	2	0/2			47.000	270.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/2	2	0/2			26.000	190.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			150.000	310.000	
HEPTACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			180.000	200.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			230.000	300.000	
HEXACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			120.000	270.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	0/2	2	0/2			360.000	890.000	
OCTACHLORODIBENZOFURAN	NG/G	1/2	2	1/2	240.000-240.000	240.00	620.000	620.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			140.000	350.000	
PENTACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			120.000	200.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			110.000	360.000	
TETRACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			78.000	160.000	

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D.2.17 KC-2 WAREHOUSE AREA

The KC-2 warehouse (see Figure D.2-21) is the designated RCRA storage facility for PCBs at the FEMP. It is located north of the graphite furnace/oil burner area and south of the fire training area. The warehouse stored drums, equipment, bulk inventory items, and work order materials. Access to the warehouse is through loading-bay doors on the south side of the building; a concrete pad extends from the south side of the building approximately 10 feet to a railroad bed. The railroad is oriented east-west on the south side of the KC-2 Warehouse. Surface water drains from the concrete pad to the south. Surface water flow is uncontrolled sheet flow to the area occupied by the railroad bed. Table D-1 summarizes parameters known to be present or used in the warehouse.

Soil sampling in the KC-2 warehouse area was performed under the Operable Unit 5 RI/FS Work Plan Addenda. Soil samples were collected from four surface soil sampling points (KC-1 to KC-4) and one soil boring (1272) located between the warehouse and the railroad tracks in the area.

During the field investigation, the concrete pad and the soil in its vicinity did not show any visible signs of contamination such as discolorations, stains, or stressed vegetation. Because the concrete pad did not show any visual evidence of contamination, the surface soil in the vicinity of the railroad bed was sampled.

Surface Soil

Surface soil sampling locations in the vicinity of the KC-2 warehouse are shown in Figure D.2-21. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-17 presents the distribution of constituents with respect to background for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

All of the radionuclides for which analyses were performed for the 0- to 0.5-foot depth interval were detected in all four samples collected and exhibited levels greater than twice background, with the exception of thorium-228. These analytes include uranium-238 (24.9 to 60 pCi/g), total uranium (80.5 to 175 mg/kg), uranium-234 (19.5 to 52.1 pCi/g), thorium-230 (5.02 to 9.27 pCi/g), uranium-235/236 (0.91 to 23.7 pCi/g), and thorium-232 (1.15 to 2.97 pCig). Total thorium, which was not analyzed for at this depth, is expected to be elevated as well, based on the elevated

thorium-232 concentrations. Analyses were performed only for total uranium and total thorium in the 0.5- to 1.0-foot depth interval. Neither of these compounds was detected at this depth in the one sample collected.

A number of inorganic constituents were elevated at least two times background in the area south of the KC-2 warehouse. These include arsenic, calcium, chromium, copper, lead, magnesium, sodium, and zinc. Of these constituents, calcium, lead, magnesium, sodium, and zinc were detected at concentrations greater than five times background. Molybdenum and silver, for which no background concentrations were detected, were also recorded in the 0- to 0.5-foot depth interval.

Only two volatile organic compounds were detected in the top 0.5 feet of soil: 4-methyl-2-pentanone (one of four samples at a concentration of 1 μg/kg) and toluene (four of four samples ranging 5 to 51 μg/kg). Fuels, such as gasoline and kerosene, which are potential sources of toluene, were stored inside the warehouse.

Thirty semivolatile organic compounds were detected in the top 0.5 feet of surface soil in the vicinity of the KC-2 warehouse. A number of these compounds are PAHs, which are likely to be associated with treated railroad ties in the track area, leaks from the trains, or the PCB-contaminated waste oils that are stored in the warehouse. The range of concentrations of the PAH compounds detected in the surface soils is 140 to 18,000 μg/kg. The semivolatile compound tributyl phosphate, used as an uranium extractant, was also detected in surface soil near the KC-2 warehouse in one of four samples at a concentration of 66 μg/kg.

The PCB Aroclor-1254 was consistently detected in all surface soil samples collected in this area at levels ranging from 1100 to 2100 μg/kg. No pesticides were detected in the area south of the KC-2 warehouse.

Subsurface Soil

Subsurface soil samples were only collected from Boring 1272, shown in Figure D.2-21. The summary of analytical results is presented in Table D.2-17.

The only radionuclide analyses conducted on the subsurface soil samples collected in this area were for total uranium and total thorium. The only concentration detected in the subsurface samples was

that of total thorium, which was present at a concentration greater than twice background in the 5.0- to 10.0-foot depth interval (23 mg/kg).

No analyses were conducted for inorganic and organic constituents in the subsurface soil near the KC-2 warehouse.

Conclusion

Contamination at the KC-2 warehouse is present primarily in the surface soil. Several radionuclides were detected at the surface at levels at least twice background. Total uranium and total thorium contaminant levels decreased within the 0.5- to 1.0-foot depth and deeper. Surface soil is characterized by low-level PCB (1 to 2 ppm) and PAH (0.14 to 18 ppm) contamination throughout the area. Inorganics that were detected above five times background in the surface soil include calcium, lead, magnesium, sodium, and zinc, with the majority of the highest concentrations present in the southeastern portion of the building. The lack of subsurface soil samples in this area limits the evaluation of contamination at depth. The contamination present in the surface soil is likely associated with spills near the railroad track area.

TABLE D.2-17
KC-2 WAREHOUSE
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.166	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	7	■	■	■	⊙		■	⊙	⊙		●							
0.5 - 1	1		-						-									
1 - 1.5	0																	
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	0																	
3 - 5	1		-						-									
5 - 10	1		-						⊙									
10 - 15	1		-						-									
15 - 20	0																	

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	4	○		⊙	○	●	-	■	⊙	○	⊙	○	●	■	■	○	-	X	●	○	-	○	X	■	-	○	■
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	16.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

⊙ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

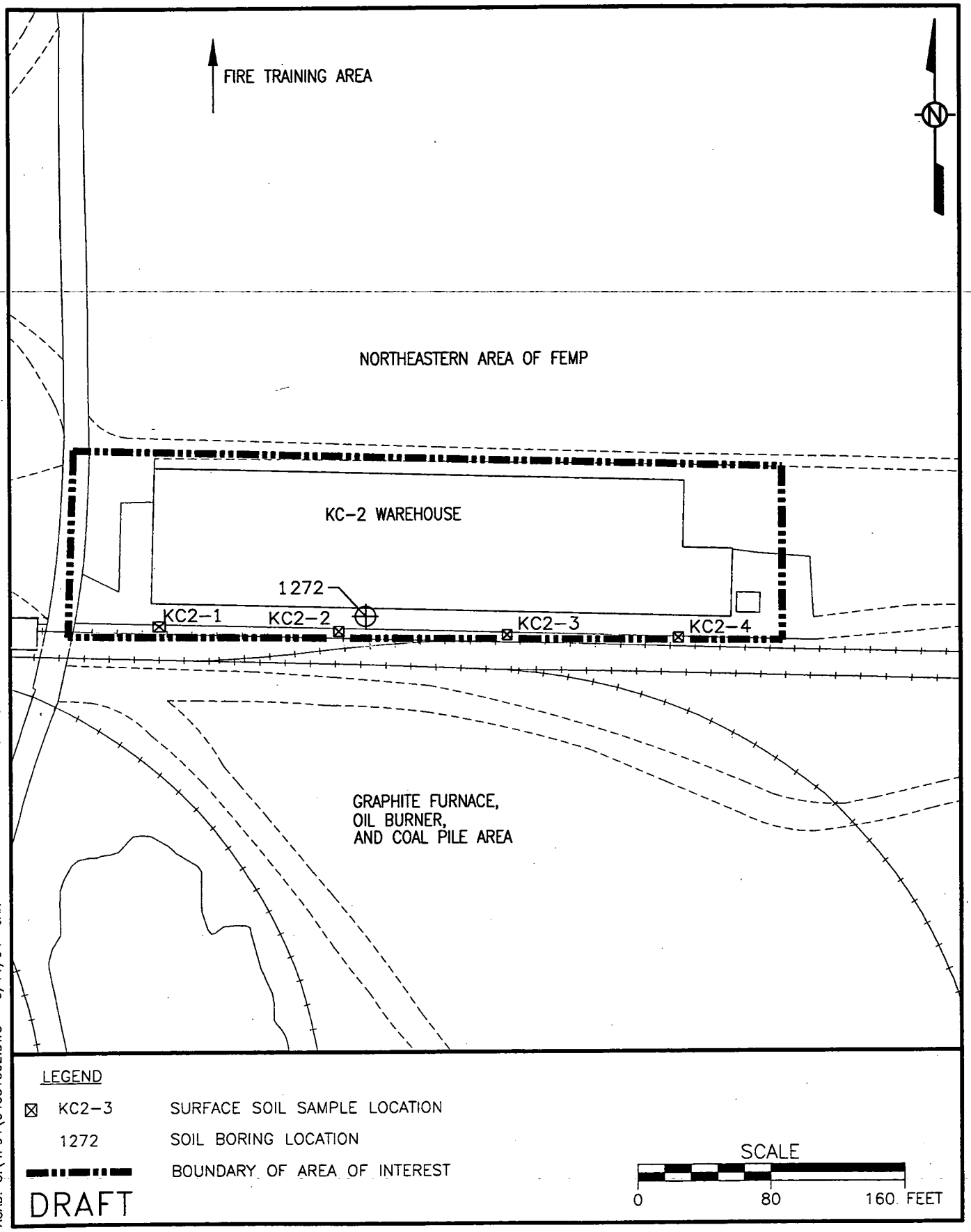
TABLE D.2-17
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg) Number of Samples	4-Methyl-2-pentanone	Toluene				
Surface Soil:							
0-0.5	4	X	X				
0.5 - 1	0						
1 - 1.5	0						
Subsurface Soil:							
1.5 - 3	0						
3 - 5	0						
5 - 10	0						
10 - 15	0						
15 - 20	0						

Depth Interval, Feet	SEMIVOLATILES (ug/kg) Number of Samples	2-Chlorophenol	2-Methylnaphthalene	3,3'-Dichlorobenzidine	4-Chloro-3-methylphenol	4-Nitroaniline	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Benzyl Alcohol	Bis(2-Ethylhexyl) Phthalate	Butyl benzyl phthalate	Chrysene	Di-n-butyl phthalate	Di-n-octyl phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	N-Nitroso-di-n-Propylamine	Naphthalene	Phenanthrene	Phenol	Pyrene	Tributyl Phosphate
Surface Soil:																																
0-0.5	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
0.5 - 1	0																															
1 - 1.5	0																															
Subsurface Soil:																																
1.5 - 3	0																															
3 - 5	0																															
5 - 10	0																															
10 - 15	0																															
15 - 20	0																															

Depth Interval, Feet	PESTICIDES/PCBs (ug/kg) Number of Samples	Aroclor-1254							
Surface Soil:									
0-0.5	7	X							
0.5 - 1	0								
1 - 1.5	0								
Subsurface Soil:									
1.5 - 3	0								
3 - 5	0								
5 - 10	0								
10 - 15	0								
15 - 20	0								

☐ "Blank" - Compound was not analyzed.
[-] Analyzed and not detected.
[X] Detection where background level not recorded.



STATE PLANAR COORDINATE SYSTEM 1927

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FIGURE D.2-21. KC-2 WAREHOUSE AREA

E 5699

KC-2 Warehouse Area

Summary Soil Statistics

AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	4/4	0	4/4	24.900-60.000	46.20	11.000	11.000	1.24
URANIUM, TOTAL	MG/KG	4/4	0	4/4	80.500-175.000	140.13	11.000	11.000	3.73
URANIUM-234	PCI/G	4/4	0	4/4	19.500-52.100	35.85	11.000	11.000	1.24
THORIUM-230	PCI/G	4/4	4	4/4	5.020-9.270	7.16	11.000	11.000	1.97
RADIUM-226	PCI/G	4/4	0	4/4	1.560-3.390	2.32	11.000	11.000	1.42
URANIUM-235/236	PCI/G	4/4	0	4/4	0.910-23.700	7.16	11.000	11.000	0.156
THORIUM-232	PCI/G	4/4	4	3/4	1.146-2.970	2.06	11.000	11.000	1.36
THORIUM, TOTAL	MG/KG	0/4	4	0/4			10.400	27.100	12.4
RADIUM-228	PCI/G	4/4	0	4/4	1.320-3.970	2.58	11.000	11.000	1.25
THORIUM-228	PCI/G	4/4	4	3/4	1.170-2.740	1.99	11.000	11.000	1.43
NEPTUNIUM-237	PCI/G	0/4	0	0/4			0.200	0.908	NA
STRONTIUM-90	PCI/G	1/4	0	1/4	2.550-2.550	2.55	0.500	0.809	0.424
TECHNETIUM-99	PCI/G	0/4	0	0/4			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	0	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	4/4	0	2/4	0.460-1.420	0.83	11.000	11.000	0.711
GROSS ALPHA	PCI/G	4/4	0	4/4	63.300-151.000	115.83	11.000	11.000	
GROSS BETA	PCI/G	4/4	0	4/4	50.000-95.100	78.95	11.000	11.000	

001079

05/24/94

AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM, TOTAL	MG/KG	0/1	0	0/1			11.000	11.000	3.73
THORIUM, TOTAL	MG/KG	0/1	0	0/1			23.000	23.000	12.4

001080

05/24/94

AREA: KC2 Warehouse
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	0/1	0	0/1			11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/1	0	0/1			23.000	23.000	11.1

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AREA: KC2 Warehouse
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM, TOTAL	MG/KG	0/1	0	0/1			11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	1/1	0	1/1	23.000-23.000	23.00	11.000	11.000	11.1

001082

05/24/94

AREA: KC2 Warehouse
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	0/1	0	0/1			11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	0/1	0	0/1			23.000	23.000	11.1

001083

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AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	4/4	4	0/4	3910.000-4600.000	4282.50	11.000	11.000	11900
ARSENIC	MG/KG	4/4	4	2/4	3.100-16.600	8.83	11.000	11.000	8.20
BARIUM	MG/KG	4/4	4	0/4	47.400-79.700	65.63	11.000	11.000	95.7
BERYLLIUM	MG/KG	2/4	4	1/4	0.570-0.630	0.60	1.800	2.000	0.6
CADMIUM	MG/KG	0/4	4	0/4			1.000	5.000	0.870
CALCIUM	MG/KG	4/4	4	4/4	117000.000-140000.000	128750.00	11.000	11.000	4340
CHROMIUM	MG/KG	4/4	4	4/4	16.800-34.300	24.63	11.000	11.000	15.5
COBALT	MG/KG	2/4	4	0/4	3.800-5.300	4.55	9.100	9.900	14.2
COPPER	MG/KG	4/4	4	4/4	23.300-51.500	39.08	11.000	11.000	14.1
CYANIDE	MG/KG	1/4	4	0/4	0.140-0.140	0.14	0.110	0.110	0.270
IRON	MG/KG	4/4	4	1/4	12300.000-24900.000	17575.00	11.000	11.000	21700
LEAD	MG/KG	4/4	4	4/4	110.000-220.000	161.25	11.000	11.000	26.4
MAGNESIUM	MG/KG	4/4	4	4/4	28100.000-48600.000	34325.00	11.000	11.000	2780
MANGANESE	MG/KG	4/4	4	0/4	482.000-654.000	560.25	11.000	11.000	1350
MERCURY	MG/KG	0/4	4	0/4			0.100	0.110	0.3
MOLYBDENUM	MG/KG	2/4	4	2/4	6.600-11.100	8.85	18.300	19.900	NA
NICKEL	MG/KG	2/4	4	1/4	17.400-27.800	22.60	18.300	19.900	20.9
POTASSIUM	MG/KG	4/4	4	0/4	480.000-766.000	632.25	11.000	11.000	1230
SELENIUM	MG/KG	0/4	4	0/4			0.380	0.430	0.72
SILICON	MG/KG	4/4	4	0/4	620.000-1100.000	789.50	11.000	11.000	1800
SILVER	MG/KG	2/4	4	2/4	5.700-7.100	6.40	9.100	9.900	NA
SODIUM	MG/KG	4/4	4	4/4	265.000-403.000	307.75	11.000	11.000	51.1

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AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
THALLIUM	MG/KG	0/4	4	0/4			0.380	0.430	0.58
VANADIUM	MG/KG	4/4	4	0/4	12.500-20.300	16.85	11.000	11.000	30.4
ZINC	MG/KG	4/4	4	4/4	112.000-378.000	240.50	11.000	11.000	59.6

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AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			11.000	11.000	
2-BUTANONE	UG/KG	0/4	4	0/4			11.000	11.000	
2-HEXANONE	UG/KG	0/4	4	0/4			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/4	4	0/4			11.000	11.000	
ACETONE	UG/KG	1/4	4	1/4	1.000-1.000	1.00	11.000	11.000	
BENZENE	UG/KG	0/4	4	0/4			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
BROMOFORM	UG/KG	0/4	4	0/4			11.000	11.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			11.000	11.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			11.000	11.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
CHLOROFORM	UG/KG	0/4	4	0/4			11.000	11.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	11.000	

001066

AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	11.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			11.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			11.000	11.000	
STYRENE	UG/KG	0/4	4	0/4			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			11.000	11.000	
TOLUENE	UG/KG	4/4	4	4/4	5.000-51.000	21.25	11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			11.000	11.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			11.000	11.000	

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AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	1500.000	
1,2-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	1500.000	
1,3-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	1500.000	
1,4-DICHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	1500.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			1800.000	7200.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	1500.000	
2,4-DICHLOROPHENOL	UG/KG	0/4	4	0/4			370.000	1500.000	
2,4-DIMETHYLPHENOL	UG/KG	0/4	4	0/4			370.000	1500.000	
2,4-DINITROPHENOL	UG/KG	0/4	4	0/4			1800.000	7200.000	
2,4-DINITROTOLUENE	UG/KG	0/4	4	0/4			370.000	1500.000	
2,6-DINITROTOLUENE	UG/KG	0/4	4	0/4			370.000	1500.000	
2-CHLORONAPHTHALENE	UG/KG	0/4	4	0/4			370.000	1500.000	
2-CHLOROPHENOL	UG/KG	1/4	4	1/4	48.000-48.000	48.00	1400.000	1500.000	
2-METHYLNAPHTHALENE	UG/KG	4/4	4	4/4	220.000-350.000	267.50	11.000	11.000	
2-METHYLPHENOL	UG/KG	0/4	4	0/4			370.000	1500.000	
2-NITROANILINE	UG/KG	0/4	4	0/4			1800.000	7200.000	
2-NITROPHENOL	UG/KG	0/4	4	0/4			370.000	1500.000	
3,3'-DICHLOROBENZIDINE	UG/KG	1/4	4	1/4	190.000-190.000	190.00	740.000	3000.000	
3-NITROANILINE	NONE	0/4	4	0/4			1800.000	7200.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/4	4	0/4			1800.000	7200.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/4	4	0/4			370.000	1500.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	1/4	4	1/4	46.000-46.000	46.00	1400.000	1500.000	

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000108

AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/4	4	0/4			370.000	1500.000	
4-METHYLPHENOL	UG/KG	0/4	4	0/4			370.000	1500.000	
4-NITROANILINE	UG/KG	1/4	4	1/4	330.000-330.000	330.00	1800.000	7200.000	
4-NITROPHENOL	UG/KG	0/4	4	0/4			1800.000	7200.000	
ACENAPHTHENE	UG/KG	4/4	4	4/4	160.000-1000.000	472.50	11.000	11.000	
ACENAPHTHYLENE	UG/KG	4/4	4	4/4	410.000-3100.000	1237.50	11.000	11.000	
ANTHRACENE	UG/KG	4/4	4	4/4	850.000-3600.000	1857.50	11.000	11.000	
BENZO(A)ANTHRACENE	UG/KG	4/4	4	4/4	1600.000-9200.000	5500.00	11.000	11.000	
BENZO(A)PYRENE	UG/KG	4/4	4	4/4	2600.000-12000.000	7250.00	11.000	11.000	
BENZO(B)FLUORANTHENE	UG/KG	4/4	4	4/4	3300.000-15000.000	8450.00	11.000	11.000	
BENZO(G,H,I)PERYLENE	UG/KG	4/4	4	4/4	2000.000-8700.000	5525.00	11.000	11.000	
BENZO(K)FLUORANTHENE	UG/KG	4/4	4	4/4	2900.000-12000.000	7050.00	11.000	11.000	
BENZOIC ACID	UG/KG	1/4	4	1/4	97.000-97.000	97.00	7000.000	7200.000	
BENZYL ALCOHOL	UG/KG	1/4	4	1/4	69.000-69.000	69.00	1400.000	1500.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/4	4	0/4			370.000	1500.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/4	4	0/4			370.000	1500.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/4	4	0/4			370.000	1500.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	4/4	4	4/4	270.000-11000.000	3437.50	11.000	11.000	
BUTYL BENZYL PHTHALATE	UG/KG	1/4	4	1/4	74.000-74.000	74.00	1400.000	1500.000	
CHRYSENE	UG/KG	4/4	4	4/4	2500.000-12000.000	7250.00	11.000	11.000	
DI-N-BUTYL PHTHALATE	UG/KG	4/4	4	4/4	610.000-6100.000	2592.50	11.000	11.000	
DI-N-OCTYL PHTHALATE	UG/KG	2/4	4	2/4	180.000-260.000	220.00	1400.000	1500.000	

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AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	4/4	4	4/4	920.000-3500.000	2305.00	11.000	11.000	
DIBENZOFURAN	UG/KG	4/4	4	4/4	140.000-400.000	277.50	11.000	11.000	
DIETHYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	1500.000	
DIMETHYL PHTHALATE	UG/KG	0/4	4	0/4			370.000	1500.000	
FLUORANTHENE	UG/KG	4/4	4	4/4	3100.000-18000.000	9625.00	11.000	11.000	
FLUORENE	UG/KG	4/4	4	4/4	140.000-840.000	420.00	11.000	11.000	
HEXACHLOROBENZENE	UG/KG	0/4	4	0/4			370.000	1500.000	
HEXACHLOROBUTADIENE	UG/KG	0/4	4	0/4			370.000	1500.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/4	4	0/4			370.000	1500.000	
HEXACHLOROETHANE	UG/KG	0/4	4	0/4			370.000	1500.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	4/4	4	4/4	2000.000-8700.000	5450.00	11.000	11.000	
ISOPHORONE	UG/KG	0/4	4	0/4			370.000	1500.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	1/4	4	1/4	39.000-39.000	39.00	1400.000	1500.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/4	4	0/4			370.000	1500.000	
NAPHTHALENE	UG/KG	4/4	4	4/4	180.000-340.000	252.50	11.000	11.000	
NITROBENZENE	UG/KG	0/4	4	0/4			370.000	1500.000	
P-CHLOROANILINE	UG/KG	0/4	4	0/4			370.000	1500.000	
PENTACHLOROPHENOL	UG/KG	0/4	4	0/4			1800.000	7200.000	
PHENANTHRENE	UG/KG	4/4	4	4/4	1300.000-9900.000	4525.00	11.000	11.000	
PHENOL	UG/KG	1/4	4	1/4	110.000-110.000	110.00	1400.000	1500.000	
PYRENE	UG/KG	4/4	4	4/4	2600.000-14000.000	8100.00	11.000	11.000	
TRIBUTYL PHOSPHATE	UG/KG	1/4	4	1/4	66.000-66.000	66.00	1400.000	1500.000	

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AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/4	0	0/4			19.000	92.000	
4,4'-DDE	UG/KG	0/4	0	0/4			19.000	92.000	
4,4'-DDT	UG/KG	0/4	0	0/4			19.000	92.000	
ALDRIN	UG/KG	0/4	0	0/4			9.400	46.000	
ALPHA-BHC	UG/KG	0/4	0	0/4			9.400	46.000	
ALPHA-CHLORDANE	UG/KG	0/4	0	0/4			94.000	460.000	
AROCLOR-1016	UG/KG	0/4	0	0/4			94.000	460.000	
AROCLOR-1221	UG/KG	0/4	0	0/4			94.000	460.000	
AROCLOR-1232	UG/KG	0/4	0	0/4			94.000	460.000	
AROCLOR-1242	UG/KG	0/4	0	0/4			94.000	460.000	
AROCLOR-1248	UG/KG	0/4	0	0/4			94.000	460.000	
AROCLOR-1254	UG/KG	4/4	4	4/4	1100.000-2100.000	1425.00	11.000	11.000	
AROCLOR-1260	UG/KG	0/4	0	0/4			190.000	920.000	
BETA-BHC	UG/KG	0/4	0	0/4			9.400	46.000	
DELTA-BHC	UG/KG	0/4	0	0/4			9.400	46.000	
DIELDRIN	UG/KG	0/4	0	0/4			19.000	92.000	
ENDOSULFAN II	UG/KG	0/4	0	0/4			19.000	92.000	
ENDOSULFAN SULFATE	UG/KG	0/4	0	0/4			19.000	92.000	
ENDOSULFAN-I	UG/KG	0/4	0	0/4			9.400	46.000	
ENDRIN	UG/KG	0/4	0	0/4			19.000	92.000	
ENDRIN KETONE	UG/KG	0/4	0	0/4			19.000	92.000	
GAMMA-BHC (LINDANE)	UG/KG	0/4	0	0/4			9.400	46.000	

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AREA: KC2 Warehouse
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-CHLORDANE	UG/KG	0/4	0	0/4			94.000	460.000	
HEPTACHLOR	UG/KG	0/4	0	0/4			9.400	46.000	
HEPTACHLOR EPOXIDE	UG/KG	0/4	0	0/4			9.400	46.000	
METHOXYCHLOR	UG/KG	0/4	0	0/4			94.000	460.000	
TOXAPHENE	UG/KG	0/4	0	0/4			190.000	920.000	

250100

D.2.18 FIRE TRAINING AREA

The fire training area, as shown on Figure D.2-22, is located in the north central portion of the FEMP, north of the KC-2 warehouse. This area contains the burn house, the burn pond and drain pit sump, and the burn trough.

Contamination of this area has occurred from monthly fire training exercises that involved burning 30 to 40 drums of waste solvents and waste oils per training exercise. Table D-1 summarizes the parameters known to be present or used in the area. The materials were placed in the drain pit sump for disposal. The drain pit sump is reportedly an unlined excavation with no connections to the storm drains.

Surface drainage in the fire training area flows south toward the former production area. All surface drainage in the field between the fire training area and the KC-2 warehouse flows into a concrete drainage box inlet located immediately adjacent to the warehouse. A pipe, several feet below the ground surface, exits the box inlet and appears to drain to the northwest.

Removal Action No. 28 involves the removal of contaminated soil and contaminated structures (i.e., buildings, tanks, sump, and pond) in the fire training area. The fire training area is a designated HWMU under RCRA because of the use and disposal of solvents in the area. The final Removal Action Work Plan/Closure Plan Information and Data (RAWP/CPID) was approved in November 1993 by the EPA. To date, no removal of contaminated structures or soil has taken place. Sampling activities, which commenced in June 1993, are ongoing. The projected completion date for removal activities associated with Removal Action No. 28 is July 1995.

Three separate soil sampling investigations were conducted in the vicinity of the fire training area. These investigations were performed under the site-wide RI, in 1988 (collection of 9 surface soil samples), the PASA Work Plan (drilling of eight borings, 1508 - 1515) and the Operable Unit 5 RI/FS Work Plan Addenda (collection of 7 surface soil samples, 1668 - 1673; and FT-5).

Surface Soil

Locations of surface soil sampling in and near the fire training area are shown in Figure D.2-22. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in

the area. Table D.2-18 presents the distribution of constituents with respect to background for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Within the top 6 inches of soil in this area, the majority of radionuclides exhibited elevated levels greater than twice background. The maximum total uranium concentration in the surface soil was 1170 mg/kg, at 0 to 0.5 feet. Only uranium-238, total uranium, and uranium-234 were elevated above background levels within the 0.5- to 1.0- and 1.0- to 1.5-foot depth intervals.

The only inorganic constituents to show highly elevated concentrations above background levels in the surface soil in the fire training area were cadmium, calcium, magnesium, and zinc. Antimony, molybdenum, and silver were detected, but no background levels were recorded.

The VOCs 1,1-dichloroethane, 2-butanone, acetone, and methylene chloride were detected in the top 0.5 feet of soil at the fire training area. Of these constituents, only acetone and methylene chloride, both common laboratory contaminants, were detected in the 1.0- to 1.5-foot depth interval.

Nineteen semivolatile organic compounds, mostly PAHs, were detected in the 0- to 0.5-foot depth interval in the vicinity of the fire training area. However, in the 1.0- to 1.5-foot depth interval, only bis(2-ethylhexyl)phthalate and di-n-butyl phthalate were detected. The PCB aroclor-1260 was detected in one sample in the 0- to 0.5-foot depth interval slightly above the laboratory detection limit at 1.3 ppm; however, and it was not detected at the 1.0- to 1.5-foot depth. The pesticide 4,4'-DDT was detected in one sample in the 0- to 0.5-foot depth interval only, at 19 ppb.

Subsurface Soil

Subsurface soil sampling locations for the fire training area are shown in Figure D.2-22. Table D.2-18 presents the distribution of constituents with respect to the maximum background levels for each sample depth interval.

Of the radionuclides in the 1.5- to 3.0-foot depth interval for which analyses were performed, only uranium-238, total uranium, uranium-234, uranium-235/236, and total thorium levels were elevated above twice background. Technetium-99 was detected, but no background level was recorded. The

only radiological constituents elevated above background at depths below 3.0 feet were total uranium and total thorium. Total uranium was detected to a depth of 20 feet and total thorium to 15 feet.

Inorganics were detected in the 1.5- to 3.0-foot depth interval in the subsurface soil, the only depth interval in the subsurface to be analyzed for inorganics. Cadmium, cyanide, and lead were the only inorganic constituents to exhibit significantly elevated concentrations in the subsurface soil located in the vicinity of the fire training area. Silver was also detected at this depth interval, but no background level was recorded. These metals are constituents of waste oils burned in this area.

Eight VOCs were detected at the 1.5- to 3.0-foot interval, the only interval in the subsurface to be analyzed for VOCs. The majority of these compounds are constituents of solvents ignited as part of the fire training exercises (i.e., 1,1,1-trichloroethane, 1,1-dichloroethane, trichloroethene).

Nine semivolatile compounds, mainly PAHs, were detected in the subsurface soil at the 1.5- to 3.0-foot depth. The majority of these compounds were also detected in the 0- to 0.5-foot depth interval. These compounds are constituents of waste oils used in the fire training activities.

The PCB aroclor-1260 was detected in the subsurface soil at the 1.5- to 3.0-foot depth interval in three samples with concentrations ranging from 0.24 to 2.7 ppm . It was also detected within the top 6 inches of surface soil. The presence of PCBs in this area can probably be linked to the use of PCB-contaminated waste oils, which were ignited for fire training purposes. No pesticides were detected in the subsurface soil of the fire training area. The furan octachlorodibenzofuran was detected in this area in the 1.5- to 3.0-foot depth interval.

Conclusions

The major contaminants in the soil of the fire training area are uranium-238, uranium-234, total uranium, and total thorium. All other constituents, such as volatile organics, PAHs and heavy metals, appear to be confined to the 0- to 0.5-foot depth and are associated with solvents and waste oils burned during the training exercises.

The probable sources of this contamination are the facilities of the fire training area. Waste solvents and oils containing radionuclide, inorganic, and organic contaminants were used extensively in the area under limited containment practices.

TABLE D.2-18
FIRE TRAINING AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	0.156	1.25	1.43	NA	1.47	NA	NA	NA	0.424	0.711
0 - 0.5	12					○		●		●	●	-	X	X		X	-	●
0.5 - 1	1			●	○	○	-	-	○	-	-	-	-	-	-	-	-	-
1 - 1.5	1			●	○	○	-	-	○	-	-	-	-	-	-	-	-	-
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	6																	
3 - 5	2		●						●									
5 - 10	7		●															
10 - 15	6		●						●									
15 - 20	2		●						○									

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		0.711	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	8	○	X	●	●	●			●	●	●	●	○	●		●	-	X	●	●	●	○	X	●	-	○	
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		ND	16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	9	●	-	●	●	○	●	○	●	●	●	●	○	●	○	○	○	-	●	○	-	○	X	●	-	○	○
3 - 5	0																										
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

● Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-18
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)										
	Number of Samples	1,1,-Dichloroethane	1,2,-Dichloroethene (total)	1,1,1-Trichloroethane	2-Butanone	Carbon disulfide	Chloroform	Methylene chloride	Tetrachloroethene	Toluene	Trichloroethene
Surface Soil:											
0 - 0.5	8	-	-	-	X	X	-	X	X	X	-
0.5 - 1	0										
1 - 1.5	0										
Subsurface Soil:											
1.5 - 3	9	X	X	X	X	X	X	-	X	X	X
3 - 5	0										
5 - 10	0										
10 - 15	0										
15 - 20	0										

Depth Interval, Feet	SEMIVOLATILES (ug/kg)																						
	Number of Samples	2,4-Dimethylphenol	4-Methylphenol	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-octyl phthalate	Dibenzo(a,h)anthracene	Fluoranthene	Ideno(1,2,3-cd)pyrene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Surface Soil:																					
0 - 0.5	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X
0.5 - 1	0																				
1 - 1.5	0																				
Subsurface Soil:																					
1.5 - 3	9	X	X	-	-	-	X	-	X	-	X	X	-	X	-	-	X	X	-	-	-
3 - 5	0																				
5 - 10	0																				
10 - 15	0																				
15 - 20	0																				

☐ "Blank" - Compound was not analyzed.

⊙ Analyzed and not detected.

X Detection where background level not recorded.

TABLE D.2-18
(Continued)

	PESTICIDES/PCBs (ug/kg)										DIOXINS/FURANS (ng/g)									
Depth Interval, Feet	Number of Samples	4,4'-DDT	Aroclor-1254	Aroclor-1260							Number of Samples	Octachlorodibenzofuran								
Surface Soil:																				
0 - 0.5	6	X	X	X							3	-								
0.5 - 1	0										0									
1 - 1.5	0										0									
Subsurface Soil:																				
1.5 - 3	9	-	-	X							6	X								
3 - 6	0										0									
6 - 10	0										0									
10 - 15	0										0									
15 - 20	0										0									

[ ] "Blank" - Compound was not analyzed.

[-] Analyzed and not detected.

[X] Detection where background level not recorded.

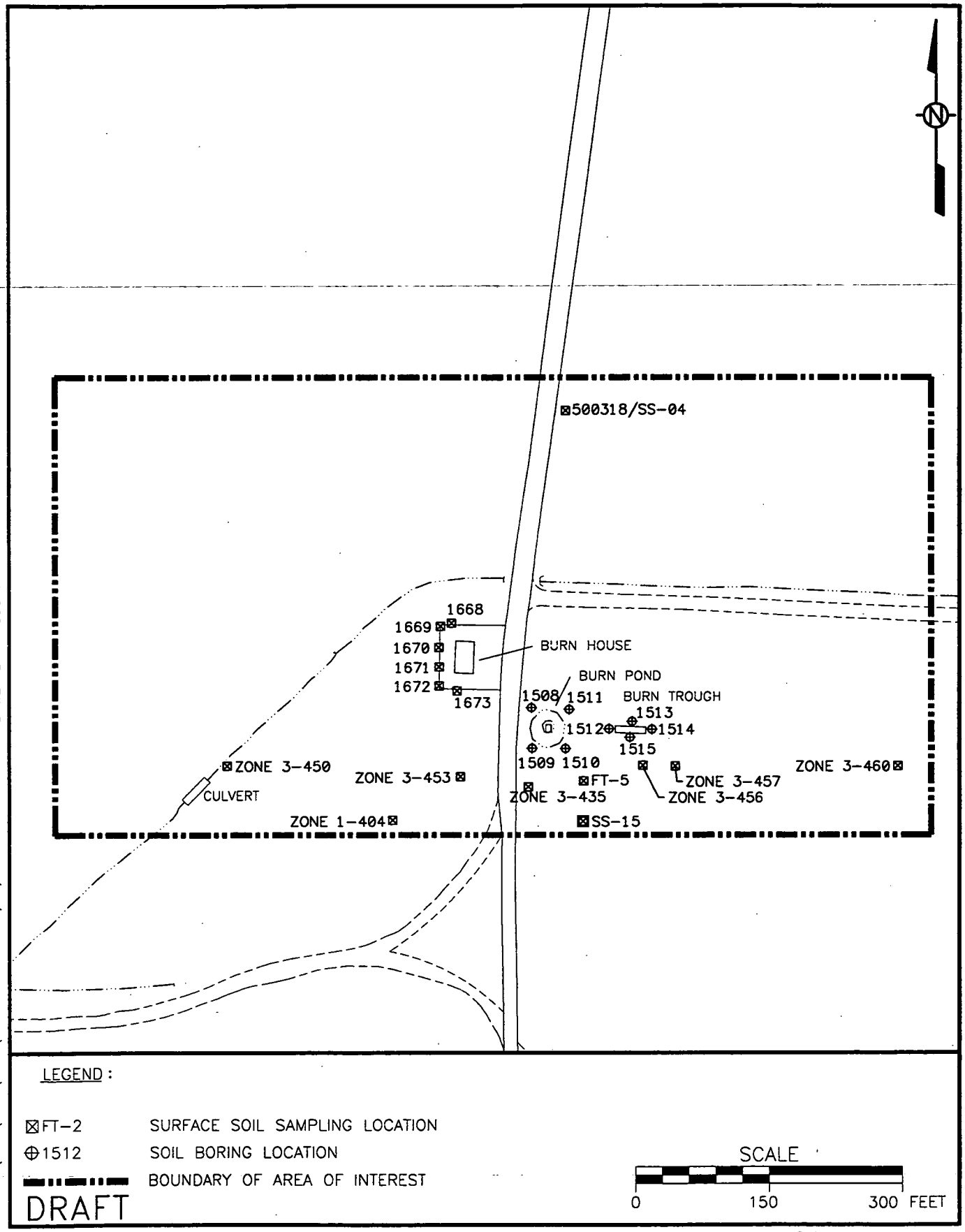

FIGURE D.2-22. FIRE TRAINING AREA

Fire Training Area

Summary Soil Statistics

AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	12/12	11	12/12	2.100-348.000	112.60			1.24
URANIUM, TOTAL	MG/KG	21/21	20	21/21	9.900-1170.000	174.08			3.73
URANIUM-234	PCI/G	12/12	11	12/12	1.500-361.000	92.29			1.24
THORIUM-230	PCI/G	11/11	11	7/11	1.000-13.500	3.45			1.97
RADIUM-226	PCI/G	8/8	7	0/8	0.400-1.300	0.92			1.42
URANIUM-235/236	PCI/G	9/12	11	9/12	0.700-19.100	6.79	0.600	0.600	0.156
THORIUM-232	PCI/G	8/11	11	1/11	0.700-5.200	1.48	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	16/19	12	2/19	3.000-82.000	14.05	5.472	5.472	12.4
RADIUM-228	PCI/G	5/8	7	2/8	0.800-5.800	2.16	0.500	0.500	1.25
THORIUM-228	PCI/G	9/11	11	2/11	0.600-6.200	1.66	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/11	10	0/11			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	2/10	10	2/10	1.900-2.900	2.40	0.600	0.600	NA
PLUTONIUM-238	PCI/G	1/10	10	1/10	1.300-1.300	1.30	0.600	0.600	NA
STRONTIUM-90	PCI/G	3/11	10	3/11	0.600-5.000	3.30	0.500	2.000	0.424
TECHNETIUM-99	PCI/G	6/11	10	6/11	8.700-27.300	15.58	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/8	7	0/8			1.000	2.100	NA
CESIUM-137	PCI/G	5/8	7	3/8	0.600-1.400	0.92	0.200	0.200	0.711

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001101

AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	1/1	0	1/1	12.800-12.800	12.80			1.24
URANIUM, TOTAL	MG/KG	1/1	0	1/1	32.000-32.000	32.00			3.73
URANIUM-234	PCI/G	1/1	0	1/1	3.900-3.900	3.90			1.24
THORIUM-230	PCI/G	1/1	0	0/1	1.300-1.300	1.30			1.97
RADIUM-226	PCI/G	1/1	0	0/1	0.400-0.400	0.40			1.42
URANIUM-235/236	PCI/G	0/1	0	0/1			0.600	0.600	0.156
THORIUM-232	PCI/G	0/1	0	0/1			0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	1/1	0	0/1	5.472-5.472	5.47			12.4
RADIUM-228	PCI/G	0/1	0	0/1			0.500	0.500	1.25
THORIUM-228	PCI/G	0/1	0	0/1			0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/1	0	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	0	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	0	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	0	0/1			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/1	0	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	0	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	0	0/1			0.200	0.200	0.711

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AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	1/1	0	1/1	21.300-21.300	21.30			1.24
URANIUM, TOTAL	MG/KG	1/1	0	1/1	59.000-59.000	59.00			3.73
URANIUM-234	PCI/G	1/1	0	1/1	5.900-5.900	5.90			1.24
THORIUM-230	PCI/G	1/1	0	0/1	1.100-1.100	1.10			1.97
RADIUM-226	PCI/G	1/1	0	0/1	0.500-0.500	0.50			1.42
URANIUM-235/236	PCI/G	0/1	0	0/1			0.600	0.600	0.156
THORIUM-232	PCI/G	0/1	0	0/1			0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	1/1	0	0/1	5.472-5.472	5.47			12.4
RADIUM-228	PCI/G	0/1	0	0/1			0.500	0.500	1.25
THORIUM-228	PCI/G	0/1	0	0/1			0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/1	0	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	0	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	0	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	0	0/1			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/1	0	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	0	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	0	0/1			0.200	0.200	0.711

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM, TOTAL	MG/KG	4/4	3	4/4	7.070-59.200	21.21			3.69
THORIUM, TOTAL	MG/KG	7/7	6	2/7	5.360-136.000	32.05			11.1

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	1/1	1	1/1	14.300-14.300	14.30			3.69
THORIUM, TOTAL	MG/KG	2/2	2	1/2	10.000-14.000	12.00			11.1

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM, TOTAL	MG/KG	5/6	6	5/6	6.530-13.600	9.19	4.480	4.480	3.69
THORIUM, TOTAL	MG/KG	8/8	8	1/8	5.000-78.000	16.25			11.1

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	3/4	4	1/4	3.400-6.410	4.45	4.540	4.540	3.69
THORIUM, TOTAL	MG/KG	6/7	7	2/7	3.000-17.000	9.67	4.000	4.000	11.1

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	2/2	2	2/2	8.250-13.800	11.03			3.69
THORIUM, TOTAL	MG/KG	1/1	1	0/1	10.000-10.000	10.00			11.1

001108

AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	9/9	9	0/9	2390.000-10600.000	5477.78			11900
ANTIMONY	MG/KG	1/2	2	1/2	3.100-3.100	3.10	1.200	3.200	NA
ARSENIC	MG/KG	9/9	9	1/9	2.100-8.300	3.93			8.20
BARIUM	MG/KG	9/9	9	1/9	31.400-117.000	57.82			95.7
BERYLLIUM	MG/KG	6/9	9	1/9	0.530-0.630	0.57	0.620	1.300	0.6
CADMIUM	MG/KG	6/9	9	6/9	4.100-7.600	5.47	1.100	1.300	0.870
CALCIUM	MG/KG	9/9	9	8/9	2240.000-130000.000	82737.78			4340
CHROMIUM	MG/KG	8/9	9	2/9	9.600-23.500	13.58	12.200	12.200	15.5
COBALT	MG/KG	9/9	9	1/9	4.800-15.700	7.36			14.2
COPPER	MG/KG	9/9	9	5/9	13.200-52.900	19.91			14.1
CYANIDE	MG/KG	6/9	9	4/9	0.170-1.200	0.50	0.110	0.130	0.270
IRON	MG/KG	9/9	9	0/9	5630.000-21000.000	11073.33			21700
LEAD	MG/KG	8/8	8	6/8	22.400-114.000	52.33			26.4
MAGNESIUM	MG/KG	9/9	9	8/9	1730.000-35900.000	21625.56			2780
MANGANESE	MG/KG	8/8	8	1/8	304.000-1480.000	490.88			1350
MERCURY	MG/KG	0/9	9	0/9			0.060	0.160	0.3
MOLYBDENUM	MG/KG	4/9	9	4/9	2.200-4.600	2.93	2.300	4.400	NA
NICKEL	MG/KG	9/9	9	7/9	13.500-25.700	21.08			20.9
POTASSIUM	MG/KG	9/9	9	1/9	300.000-1490.000	665.22			1230
SELENIUM	MG/KG	2/8	8	1/8	0.510-0.810	0.66	0.230	0.480	0.72
SILICON	MG/KG	3/3	3	0/3	247.000-797.000	437.00			1800
SILVER	MG/KG	7/9	9	7/9	4.300-10.400	6.76	0.460	0.510	NA

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AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	8/9	9	8/9	77.100-171.000	126.45	35.100	35.100	51.1
THALLIUM	MG/KG	0/9	9	0/9			0.230	0.630	0.58
VANADIUM	MG/KG	9/9	9	0/9	10.500-29.700	17.20			30.4
ZINC	MG/KG	9/9	9	8/9	43.200-2150.000	414.96			59.6

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	9/9	9	2/9	8470.000-16800.000	12942.22			16100
ANTIMONY	MG/KG	0/8	8	0/8			1.200	7.300	NA
ARSENIC	MG/KG	9/9	9	1/9	4.800-10.000	6.73			9.57
BARIUM	MG/KG	9/9	9	4/9	69.200-156.000	114.64			119
BERYLLIUM	MG/KG	1/9	9	0/9	0.530-0.530	0.53	1.400	1.900	0.620
CADMIUM	MG/KG	8/9	9	8/9	2.600-4.200	3.39	1.200	1.200	0.910
CALCIUM	MG/KG	9/9	9	0/9	4850.000-97700.000	34118.89			150000
CHROMIUM	MG/KG	9/9	9	4/9	13.000-24.300	19.69			20.7
COBALT	MG/KG	9/9	9	4/9	6.100-26.000	15.39			15.7
COPPER	MG/KG	9/9	9	1/9	11.400-21.500	16.74			20.0
CYANIDE	MG/KG	1/9	9	1/9	0.500-0.500	0.50	0.010	0.330	.17
IRON	MG/KG	9/9	9	0/9	16200.000-30200.000	24444.44			30700
LEAD	MG/KG	9/9	9	7/9	14.800-71.000	25.44			15.6
MAGNESIUM	MG/KG	9/9	9	0/9	2830.000-24600.000	8721.11			42600
MANGANESE	MG/KG	9/9	9	0/9	285.000-1080.000	624.00			1300
MERCURY	MG/KG	1/9	9	0/9	0.180-0.180	0.18	0.090	0.120	0.29
MOLYBDENUM	MG/KG	0/9	9	0/9			1.800	4.900	2.7
NICKEL	MG/KG	9/9	9	6/9	15.300-67.100	40.59			34.3
POTASSIUM	MG/KG	9/9	9	0/9	590.000-1020.000	849.78			1980
SELENIUM	MG/KG	0/9	9	0/9			0.400	0.780	NA
SILICON	MG/KG	1/1	1	0/1	872.000-872.000	872.00			1590
SILVER	MG/KG	4/9	9	4/9	2.800-5.600	4.05	2.100	2.400	NA

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	9/9	9	1/9	85.300-363.000	133.71			285
THALLIUM	MG/KG	0/9	9	0/9			0.390	0.540	0.49
VANADIUM	MG/KG	9/9	9	0/9	20.400-25.800	24.09			37.8
ZINC	MG/KG	9/9	9	0/9	47.300-75.300	63.01			82.0

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AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/8	8	0/8			5.000	30.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/8	8	0/8			5.000	30.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/8	8	0/8			5.000	30.000	
1,1-DICHLOROETHANE	UG/KG	0/8	8	0/8			5.000	30.000	
1,1-DICHLOROETHENE	UG/KG	0/8	8	0/8			5.000	30.000	
1,2-DICHLOROETHANE	UG/KG	0/8	8	0/8			5.000	30.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/8	8	0/8			5.000	30.000	
1,2-DICHLOROPROPANE	UG/KG	0/8	8	0/8			5.000	30.000	
2-BUTANONE	UG/KG	3/7	7	3/7	11.000-13.000	12.33	11.000	23.000	
2-HEXANONE	UG/KG	0/8	8	0/8			5.000	60.000	
4-METHYL-2-PENTANONE	UG/KG	0/8	8	0/8			11.000	60.000	
ACETONE	UG/KG	0/8	8	0/8			11.000	93.000	
BENZENE	UG/KG	0/8	8	0/8			5.000	30.000	
BROMODICHLOROMETHANE	UG/KG	0/8	8	0/8			5.000	30.000	
BROMOFORM	UG/KG	0/8	8	0/8			5.000	30.000	
BROMOMETHANE	UG/KG	0/8	8	0/8			11.000	60.000	
CARBON DISULFIDE	UG/KG	3/8	8	3/8	3.000-11.000	6.00	5.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/8	8	0/8			5.000	30.000	
CHLOROBENZENE	UG/KG	0/8	8	0/8			5.000	30.000	
CHLOROETHANE	UG/KG	0/8	8	0/8			11.000	60.000	
CHLOROFORM	UG/KG	0/8	8	0/8			5.000	30.000	
CHLOROMETHANE	UG/KG	0/8	8	0/8			11.000	60.000	

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FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/8	8	0/8			5.000	30.000	
DIBROMOCHLOROMETHANE	UG/KG	0/8	8	0/8			5.000	30.000	
ETHYLBENZENE	UG/KG	0/8	8	0/8			5.000	30.000	
METHYLENE CHLORIDE	UG/KG	1/8	8	1/8	220.000-220.000	220.00	6.000	13.000	
STYRENE	UG/KG	0/8	8	0/8			5.000	30.000	
TETRACHLOROETHENE	UG/KG	2/8	8	2/8	2.000-170.000	86.00	5.000	13.000	
TOLUENE	UG/KG	1/8	8	1/8	2.000-2.000	2.00	5.000	30.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/8	8	0/8			5.000	30.000	
TRICHLOROETHENE	UG/KG	0/8	8	0/8			5.000	30.000	
VINYL ACETATE	UG/KG	0/7	7	0/7			11.000	60.000	
VINYL CHLORIDE	UG/KG	0/8	8	0/8			11.000	60.000	
XYLENES, TOTAL	UG/KG	0/8	8	0/8			5.000	30.000	

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/9	9	1/9	3.000-3.000	3.00	6.000	14.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/9	9	0/9			6.000	14.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	14.000	
1,1-DICHLOROETHANE	UG/KG	1/9	9	1/9	6.000-6.000	6.00	6.000	14.000	
1,1-DICHLOROETHENE	UG/KG	0/9	9	0/9			6.000	14.000	
1,2-DICHLOROETHANE	UG/KG	0/9	9	0/9			6.000	14.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	1/9	9	1/9	2.000-2.000	2.00	6.000	14.000	
1,2-DICHLOROPROPANE	UG/KG	0/9	9	0/9			6.000	14.000	
2-BUTANONE	UG/KG	1/9	9	1/9	86.000-86.000	86.00	12.000	76.000	
2-HEXANONE	UG/KG	0/9	9	0/9			12.000	14.000	
4-METHYL-2-PENTANONE	UG/KG	0/9	9	0/9			12.000	14.000	
ACETONE	UG/KG	0/9	9	0/9			12.000	30.000	
BENZENE	UG/KG	0/9	9	0/9			6.000	14.000	
BROMODICHLOROMETHANE	UG/KG	0/9	9	0/9			6.000	14.000	
BROMOFORM	UG/KG	0/9	9	0/9			6.000	14.000	
BROMOMETHANE	UG/KG	0/9	9	0/9			12.000	14.000	
CARBON DISULFIDE	UG/KG	0/9	9	0/9			6.000	14.000	
CARBON TETRACHLORIDE	UG/KG	0/9	9	0/9			6.000	14.000	
CHLOROBENZENE	UG/KG	0/9	9	0/9			6.000	14.000	
CHLOROETHANE	UG/KG	0/9	9	0/9			12.000	14.000	
CHLOROFORM	UG/KG	1/9	9	1/9	2.000-2.000	2.00	6.000	14.000	
CHLOROMETHANE	UG/KG	0/9	9	0/9			12.000	14.000	

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			6.000	14.000	
DIBROMOCHLOROMETHANE	UG/KG	0/9	9	0/9			6.000	14.000	
ETHYLBENZENE	UG/KG	0/9	9	0/9			6.000	14.000	
METHYLENE CHLORIDE	UG/KG	0/9	9	0/9			6.000	14.000	
STYRENE	UG/KG	0/9	9	0/9			6.000	14.000	
TETRACHLOROETHENE	UG/KG	1/9	9	1/9	2.000-2.000	2.00	6.000	14.000	
TOLUENE	UG/KG	1/9	9	1/9	2.000-2.000	2.00	6.000	14.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/9	9	0/9			6.000	14.000	
TRICHLOROETHENE	UG/KG	1/9	9	1/9	1.000-1.000	1.00	6.000	14.000	
VINYL ACETATE	UG/KG	0/9	9	0/9			12.000	14.000	
VINYL CHLORIDE	UG/KG	0/9	9	0/9			12.000	14.000	
XYLENES, TOTAL	UG/KG	0/9	9	0/9			6.000	14.000	

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AREA: Fire Training Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/8	8	0/8			370.000	5600.000	
1,2-DICHLOROBENZENE	UG/KG	0/8	8	0/8			370.000	5600.000	
1,3-DICHLOROBENZENE	UG/KG	0/8	8	0/8			370.000	5600.000	
1,4-DICHLOROBENZENE	UG/KG	0/8	8	0/8			370.000	5600.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/8	8	0/8			950.000	27000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/8	8	0/8			370.000	5600.000	
2,4-DICHLOROPHENOL	UG/KG	0/8	8	0/8			370.000	5600.000	
2,4-DIMETHYLPHENOL	UG/KG	1/8	8	1/8	60.000-60.000	60.00	370.000	5600.000	
2,4-DINITROPHENOL	UG/KG	0/8	8	0/8			950.000	27000.000	
2,4-DINITROTOLUENE	UG/KG	0/8	8	0/8			370.000	5600.000	
2,6-DINITROTOLUENE	UG/KG	0/8	8	0/8			370.000	5600.000	
2-CHLORONAPHTHALENE	UG/KG	0/8	8	0/8			370.000	5600.000	
2-CHLOROPHENOL	UG/KG	0/8	8	0/8			370.000	5600.000	
2-METHYLNAPHTHALENE	UG/KG	0/8	8	0/8			370.000	5600.000	
2-METHYLPHENOL	UG/KG	0/8	8	0/8			370.000	5600.000	
2-NITROANILINE	UG/KG	0/8	8	0/8			950.000	27000.000	
2-NITROPHENOL	UG/KG	0/8	8	0/8			370.000	5600.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/9	9	0/9			380.000	11000.000	
3-NITROANILINE	NONE	0/8	8	0/8			950.000	27000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/8	8	0/8			950.000	27000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/8	8	0/8			370.000	5600.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/8	8	0/8			370.000	5600.000	

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AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/8	8	0/8			370.000	5600.000	
4-METHYLPHENOL	UG/KG	1/8	8	1/8	61.000-61.000	61.00	370.000	5600.000	
4-NITROANILINE	UG/KG	0/8	8	0/8			950.000	27000.000	
4-NITROPHENOL	UG/KG	0/8	8	0/8			950.000	27000.000	
ACENAPHTHENE	UG/KG	0/8	8	0/8			370.000	5600.000	
ACENAPHTHYLENE	UG/KG	1/8	8	1/8	48.000-48.000	48.00	370.000	5600.000	
ANTHRACENE	UG/KG	2/9	9	2/9	67.000-9800.000	4933.50	370.000	4200.000	
BENZO(A)ANTHRACENE	UG/KG	3/9	9	3/9	41.000-2700.000	967.00	370.000	4200.000	
BENZO(A)PYRENE	UG/KG	2/9	9	2/9	240.000-1600.000	920.00	370.000	4200.000	
BENZO(B)FLUORANTHENE	UG/KG	2/9	9	2/9	54.000-7700.000	3877.00	370.000	4200.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/9	9	1/9	200.000-200.000	200.00	370.000	5600.000	
BENZO(K)FLUORANTHENE	UG/KG	2/9	9	2/9	52.000-210.000	131.00	370.000	5600.000	
BENZOIC ACID	UG/KG	1/8	8	1/8	74.000-74.000	74.00	950.000	27000.000	
BENZYL ALCOHOL	UG/KG	0/8	8	0/8			370.000	5600.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/8	8	0/8			370.000	5600.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/8	8	0/8			370.000	5600.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/8	8	0/8			370.000	5600.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	3/9	9	3/9	43.000-570.000	235.00	370.000	4200.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/9	9	0/9			370.000	5600.000	
CHRYSENE	UG/KG	2/9	9	2/9	50.000-4700.000	2375.00	370.000	4200.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/9	9	0/9			370.000	5600.000	
DI-N-OCTYL PHTHALATE	UG/KG	1/9	9	1/9	280.000-280.000	280.00	370.000	5600.000	

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FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	1/9	9	1/9	62.000-62.000	62.00	370.000	5600.000	
DIBENZOFURAN	UG/KG	0/8	8	0/8			370.000	5600.000	
DIETHYL PHTHALATE	UG/KG	0/8	8	0/8			370.000	5600.000	
DIMETHYL PHTHALATE	UG/KG	0/8	8	0/8			370.000	5600.000	
FLUORANTHENE	UG/KG	7/9	9	7/9	56.000-3800.000	713.71	3900.000	4200.000	
FLUORENE	UG/KG	0/8	8	0/8			370.000	5600.000	
HEXACHLOROBENZENE	UG/KG	0/8	8	0/8			370.000	5600.000	
HEXACHLOROBUTADIENE	UG/KG	0/8	8	0/8			370.000	5600.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/8	8	0/8			370.000	5600.000	
HEXACHLOROETHANE	UG/KG	0/8	8	0/8			370.000	5600.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/9	9	1/9	180.000-180.000	180.00	370.000	5600.000	
ISOPHORONE	UG/KG	0/8	8	0/8			370.000	5600.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/8	8	0/8			370.000	5600.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/8	8	0/8			370.000	5600.000	
NAPHTHALENE	UG/KG	0/8	8	0/8			370.000	5600.000	
NITROBENZENE	UG/KG	0/8	8	0/8			370.000	5600.000	
O,O,O-TRIETHYLPHOSPHOROTHIOATE	UG/KG	0/6	6	0/6			0.030	0.040	
P-CHLOROANILINE	UG/KG	0/8	8	0/8			370.000	5600.000	
PENTACHLOROPHENOL	UG/KG	0/8	8	0/8			950.000	27000.000	
PHENANTHRENE	UG/KG	4/9	9	4/9	48.000-2200.000	595.50	370.000	4200.000	
PHENOL	UG/KG	1/8	8	1/8	44.000-44.000	44.00	370.000	5600.000	
PYRENE	UG/KG	7/9	9	7/9	64.000-6800.000	1177.86	3900.000	4200.000	

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FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
TRIBUTYL PHOSPHATE	UG/KG	0/1	1	0/1			410.000	410.000	

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AREA: Fire Training Area
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/9	9	0/9			420.000	2000.000	
1,2-DICHLOROBENZENE	UG/KG	0/9	9	0/9			420.000	2000.000	
1,3-DICHLOROBENZENE	UG/KG	0/9	9	0/9			420.000	2000.000	
1,4-DICHLOROBENZENE	UG/KG	0/9	9	0/9			420.000	2000.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/9	9	0/9			2000.000	9800.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/9	9	0/9			420.000	2000.000	
2,4-DICHLOROPHENOL	UG/KG	0/9	9	0/9			420.000	2000.000	
2,4-DIMETHYLPHENOL	UG/KG	1/9	9	1/9	100.000-100.000	100.00	420.000	2000.000	
2,4-DINITROPHENOL	UG/KG	0/9	9	0/9			2000.000	9800.000	
2,4-DINITROTOLUENE	UG/KG	0/9	9	0/9			420.000	2000.000	
2,6-DINITROTOLUENE	UG/KG	0/9	9	0/9			420.000	2000.000	
2-CHLORONAPHTHALENE	UG/KG	0/9	9	0/9			420.000	2000.000	
2-CHLOROPHENOL	UG/KG	0/9	9	0/9			420.000	2000.000	
2-METHYLNAPHTHALENE	UG/KG	0/9	9	0/9			420.000	2000.000	
2-METHYLPHENOL	UG/KG	0/9	9	0/9			420.000	2000.000	
2-NITROANILINE	UG/KG	0/9	9	0/9			2000.000	9800.000	
2-NITROPHENOL	UG/KG	0/9	9	0/9			420.000	2000.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/9	9	0/9			830.000	4000.000	
3-NITROANILINE	NONE	0/9	9	0/9			2000.000	9800.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/9	9	0/9			2000.000	9800.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/9	9	0/9			420.000	2000.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/9	9	0/9			420.000	2000.000	

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/9	9	0/9			420.000	2000.000	
4-METHYLPHENOL	UG/KG	1/9	9	1/9	110.000-110.000	110.00	420.000	2000.000	
4-NITROANILINE	UG/KG	0/9	9	0/9			2000.000	9800.000	
4-NITROPHENOL	UG/KG	0/9	9	0/9			2000.000	9800.000	
ACENAPHTHENE	UG/KG	0/9	9	0/9			420.000	2000.000	
ACENAPHTHYLENE	UG/KG	0/9	9	0/9			420.000	2000.000	
ANTHRACENE	UG/KG	0/9	9	0/9			420.000	2000.000	
BENZO(A)ANTHRACENE	UG/KG	0/9	9	0/9			420.000	2000.000	
BENZO(A)PYRENE	UG/KG	1/9	9	1/9	120.000-120.000	120.00	420.000	2000.000	
BENZO(B)FLUORANTHENE	UG/KG	0/9	9	0/9			420.000	2000.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/9	9	1/9	140.000-140.000	140.00	420.000	2000.000	
BENZO(K)FLUORANTHENE	UG/KG	0/9	9	0/9			420.000	2000.000	
BENZOIC ACID	UG/KG	1/9	9	1/9	65.000-65.000	65.00	2000.000	9800.000	
BENZYL ALCOHOL	UG/KG	0/9	9	0/9			420.000	2000.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/9	9	0/9			420.000	2000.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/9	9	0/9			420.000	2000.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/9	9	0/9			420.000	2000.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/9	9	2/9	96.000-180.000	138.00	420.000	2000.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/9	9	0/9			420.000	2000.000	
CHRYSENE	UG/KG	0/9	9	0/9			420.000	2000.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/9	9	0/9			420.000	2000.000	
DI-N-OCTYL PHTHALATE	UG/KG	1/9	9	1/9	50.000-50.000	50.00	420.000	2000.000	

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/9	9	0/9			420.000	2000.000	
DIBENZOFURAN	UG/KG	0/9	9	0/9			420.000	2000.000	
DIETHYL PHTHALATE	UG/KG	0/9	9	0/9			420.000	2000.000	
DIMETHYL PHTHALATE	UG/KG	0/9	9	0/9			420.000	2000.000	
FLUORANTHENE	UG/KG	0/9	9	0/9			420.000	2000.000	
FLUORENE	UG/KG	0/9	9	0/9			420.000	2000.000	
HEXACHLOROBENZENE	UG/KG	0/9	9	0/9			420.000	2000.000	
HEXACHLOROBUTADIENE	UG/KG	0/9	9	0/9			420.000	2000.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/9	9	0/9			420.000	2000.000	
HEXACHLOROETHANE	UG/KG	0/9	9	0/9			420.000	2000.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/9	9	1/9	120.000-120.000	120.00	420.000	2000.000	
ISOPHORONE	UG/KG	0/9	9	0/9			420.000	2000.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/9	9	0/9			420.000	2000.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/9	9	0/9			420.000	2000.000	
NAPHTHALENE	UG/KG	0/9	9	0/9			420.000	2000.000	
NITROBENZENE	UG/KG	0/9	9	0/9			420.000	2000.000	
P-CHLOROANILINE	UG/KG	0/9	9	0/9			420.000	2000.000	
PENTACHLOROPHENOL	UG/KG	2/9	9	2/9	98.000-260.000	179.00	2000.000	9800.000	
PHENANTHRENE	UG/KG	0/9	9	0/9			420.000	2000.000	
PHENOL	UG/KG	0/9	9	0/9			420.000	2000.000	
PYRENE	UG/KG	0/9	9	0/9			420.000	2000.000	
TRIBUTYL PHOSPHATE	UG/KG	0/1	1	0/1			480.000	480.000	

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AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/8	8	0/8			3.800	110.000	
4,4'-DDE	UG/KG	0/8	8	0/8			3.800	110.000	
4,4'-DDT	UG/KG	1/8	8	1/8	19.000-19.000	19.00	3.800	110.000	
ALDRIN	UG/KG	0/8	8	0/8			2.000	54.000	
ALPHA-BHC	UG/KG	0/8	8	0/8			2.000	54.000	
ALPHA-CHLORDANE	UG/KG	0/8	8	0/8			2.000	540.000	
AROCLOR-1016	UG/KG	0/8	8	0/8			38.000	540.000	
AROCLOR-1221	UG/KG	0/8	8	0/8			77.000	540.000	
AROCLOR-1232	UG/KG	0/8	8	0/8			38.000	540.000	
AROCLOR-1242	UG/KG	0/8	8	0/8			38.000	540.000	
AROCLOR-1248	UG/KG	0/8	8	0/8			38.000	540.000	
AROCLOR-1254	UG/KG	2/8	8	2/8	21.000-45.000	33.00	38.000	1100.000	
AROCLOR-1260	UG/KG	1/8	8	1/8	1300.000-1300.000	1300.00	38.000	1100.000	
BETA-BHC	UG/KG	0/8	8	0/8			2.000	54.000	
DELTA-BHC	UG/KG	0/8	8	0/8			2.000	54.000	
DIELDRIN	UG/KG	0/8	8	0/8			3.800	110.000	
ENDOSULFAN II	UG/KG	0/8	8	0/8			3.800	110.000	
ENDOSULFAN SULFATE	UG/KG	0/8	8	0/8			3.800	110.000	
ENDOSULFAN-I	UG/KG	0/8	8	0/8			2.000	54.000	
ENDRIN	UG/KG	0/8	8	0/8			3.800	110.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/8	8	0/8			3.800	110.000	

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AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/8	8	0/8			2.000	54.000	
GAMMA-CHLORDANE	UG/KG	0/8	8	0/8			2.000	540.000	
HEPTACHLOR	UG/KG	0/8	8	0/8			2.000	54.000	
HEPTACHLOR EPOXIDE	UG/KG	0/8	8	0/8			2.000	54.000	
METHOXYCHLOR	UG/KG	0/8	8	0/8			20.000	540.000	
SULFOTEP	UG/KG	0/6	6	0/6			0.030	0.040	
TOXAPHENE	UG/KG	0/8	8	0/8			180.000	1100.000	

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/9	9	0/9			20.000	430.000	
4,4'-DDE	UG/KG	0/9	9	0/9			20.000	430.000	
4,4'-DDT	UG/KG	0/9	9	0/9			20.000	430.000	
ALDRIN	UG/KG	0/9	9	0/9			9.800	220.000	
ALPHA-BHC	UG/KG	0/9	9	0/9			9.800	220.000	
ALPHA-CHLORDANE	UG/KG	0/9	9	0/9			98.000	2200.000	
AROCLOR-1016	UG/KG	0/9	9	0/9			98.000	2200.000	
AROCLOR-1221	UG/KG	0/9	9	0/9			98.000	2200.000	
AROCLOR-1232	UG/KG	0/9	9	0/9			98.000	2200.000	
AROCLOR-1242	UG/KG	0/9	9	0/9			98.000	2200.000	
AROCLOR-1248	UG/KG	0/9	9	0/9			98.000	2200.000	
AROCLOR-1254	UG/KG	0/9	9	0/9			200.000	4300.000	
AROCLOR-1260	UG/KG	3/9	9	3/9	240.000-2700.000	1546.67	200.000	820.000	
BETA-BHC	UG/KG	0/9	9	0/9			9.800	220.000	
DELTA-BHC	UG/KG	0/9	9	0/9			9.800	220.000	
DIELDRIN	UG/KG	0/9	9	0/9			20.000	430.000	
ENDOSULFAN II	UG/KG	0/9	9	0/9			20.000	430.000	
ENDOSULFAN SULFATE	UG/KG	0/9	8	0/9			20.000	430.000	
ENDOSULFAN-I	UG/KG	0/9	9	0/9			9.800	220.000	
ENDRIN	UG/KG	0/9	9	0/9			20.000	430.000	
ENDRIN KETONE	UG/KG	0/9	9	0/9			20.000	430.000	
GAMMA-BHC (LINDANE)	UG/KG	0/9	9	0/9			9.800	220.000	

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-CHLORDANE	UG/KG	0/9	9	0/9			98.000	2200.000	
HEPTACHLOR	UG/KG	0/9	9	0/9			9.800	220.000	
HEPTACHLOR EPOXIDE	UG/KG	0/9	9	0/9			9.800	220.000	
METHOXYCHLOR	UG/KG	0/9	9	0/9			98.000	2200.000	
TOXAPHENE	UG/KG	0/9	9	0/9			200.000	4300.000	

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AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
ORGANOPHOSPHORUS PESTICIDES DEPTH: 0 - .5 FEET									
AZINPHOSMETHYL	UG/KG	0/1	1	0/1			82.000	82.000	
DEMETON	UG/KG	0/1	1	0/1			66.000	66.000	
DIAZINON	UG/KG	0/1	1	0/1			33.000	33.000	
DIMETHOATE	UG/KG	0/6	6	0/6			0.030	0.040	
DISULFOTON	UG/KG	0/7	7	0/7			0.030	33.000	
ETHION	UG/KG	0/1	1	0/1			33.000	33.000	
FAMPHUR	UG/KG	0/6	6	0/6			0.090	0.120	
MALATHION	UG/KG	0/1	1	0/1			33.000	33.000	
METHYL PARATHION	UG/KG	0/7	7	0/7			0.060	33.000	
PARATHION	UG/KG	0/7	7	0/7			0.060	33.000	
PHORATE	UG/KG	0/6	6	0/6			0.060	0.080	
THIONAZIN	UG/KG	0/6	6	0/6			0.030	0.040	

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
ORGANOPHOSPHORUS PESTICIDES DEPTH: 1.5 - 3 FEET									
AZINPHOSMETHYL	UG/KG	0/6	6	0/6			81.000	82.000	
DEMETON	UG/KG	0/6	6	0/6			65.000	66.000	
DIAZINON	UG/KG	0/6	6	0/6			32.000	33.000	
DISULFOTON	UG/KG	0/6	6	0/6			32.000	33.000	
ETHION	UG/KG	0/6	6	0/6			32.000	33.000	
MALATHION	UG/KG	0/6	6	0/6			32.000	33.000	
METHYL PARATHION	UG/KG	0/6	6	0/6			32.000	33.000	
PARATHION	UG/KG	0/6	6	0/6			32.000	33.000	

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FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 0 - .5 FEET									
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/7	7	0/7			120.000	1000.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/1	1	0/1			1000.000	1000.000	
HEPTACHLORODIBENZOFURANS	NG/G	0/1	1	0/1			1000.000	1000.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/7	7	0/7			83.000	1000.000	
HEXACHLORODIBENZOFURANS	NG/G	0/7	7	0/7			110.000	1000.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
OCTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/7	7	0/7			100.000	1000.000	

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AREA: Fire Training Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 0 - .5 FEET									
PENTACHLORODIBENZOFURANS	NG/G	0/7	7	0/7			30.000	1000.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/7	7	0/7			36.000	1000.000	
TETRACHLORODIBENZOFURANS	NG/G	0/7	7	0/7			31.000	1000.000	

AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS									
DEPTH: 1.5 - 3 FEET									
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/6	6	0/6			960.000	1000.000	
HEPTACHLORODIBENZOFURANS	NG/G	0/6	6	0/6			960.000	1000.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/6	6	0/6			960.000	1000.000	
HEXACHLORODIBENZOFURANS	NG/G	0/6	6	0/6			960.000	1000.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
OCTACHLORODIBENZOFURAN	NG/G	1/6	6	1/6	1500.000-1500.000	1500.00	960.000	1000.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/6	6	0/6			960.000	1000.000	

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AREA: Fire Training Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 1.5 - 3 FEET									
PENTACHLORODIBENZOFURANS	NG/G	0/6	6	0/6			960.000	1000.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/6	6	0/6			960.000	1000.000	
TETRACHLORODIBENZOFURANS	NG/G	0/6	6	0/6			960.000	1000.000	

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D.2.19 TRAP RANGE

The trap range covers an approximate 1000- by 1000-foot area south of the sewage treatment plant access road and southeast of the former production area (Figure D.2-23). Several features distinguish the trap range area from the rest of the undeveloped area in this region of FEMP property. These features include two structures, a shooting platform, and a row of trees on the northern half of the western boundary, several individual trees on the southern boundary, and high-voltage power line towers along the eastern boundary. A Texas Gas and Oil Company pipeline easement crosses the southeast corner of the trap range area.

Sampling in the area occurred from July to September 1993. The sample program included a radiological walkover survey, a metal detector survey, surface soil sampling, and subsequent resampling based on the results of initial sample screening. Following the radiological walkover survey and metal detector survey, sampling from the 0- to 4.0-inch depth and the 4.0- to 8.0-inch depth was conducted at 18 locations in the trap range area. The general sampling area was bounded by a wedge-shaped shot fallout zone. According to standard trap industry guidelines, the highest incidence of lead shot fallout occurs between 75 and 375 feet downrange of the trap house. Sixty percent of the 18 soil samples were taken from this region. The remaining 40 percent were taken from the portion of the general sampling area that lies 375 feet beyond the trap house.

The 18 samples underwent a special sieve test procedure developed at the on-site laboratory. The test separated lead shot, trap fragments, and grass and rocks from the soil. Based on the percentage of lead shot and trap fragments in the samples, the soil fractions were selected for HSL metals analysis. Four soil fractions with the highest concentration of lead shot and three soil fractions with the lowest concentration of lead shot were analyzed.

Based on these tests, 14 locations were selected for surface soil sampling: seven of these samples were analyzed for HSL semivolatiles and the remaining seven were analyzed for limited HSL metals. These locations appear in Figure D.2-23. Table D.2-19 presents results for radiological, inorganic, and organic constituents with respect to the 95th percentile background values (background) according to depth.

Surface Soil

Analytical results for samples tested for radionuclides indicated that levels of total uranium and uranium-235/236 were greater than five times background in surface soil. The maximum concentration of total uranium is 23.7 mg/kg. Uranium-238, uranium-234, and strontium-90 were at least twice background. Plutonium-239/240 was detected in 7 of 9 samples in activities ranging from 0.4 to 1.7 pCi/g, but no background level was recorded.

Calcium, cyanide, lead, magnesium, and mercury were detected at levels at least five times background. Arsenic, chromium, copper, and zinc were detected at levels at least twice background. Barium, beryllium, cobalt, iron, manganese, potassium, and sodium were detected above background. Levels of lead were highest in samples from within the zone identified as having the greatest potential for lead shot fallout from trap shooting. Concentrations of lead in the surface soil (0 to 0.5 feet only) was 17.5 to 2180 mg/kg.

Semivolatile test results indicated that benzoic acid and bis(2-ethylhexyl)phthalate were present in the surface interval. No other surface soil sample intervals were tested.

Subsurface Soil

Only one sample each from the 5.0- to 10-foot and 10- to 15-foot sample intervals were tested for radionuclides. These samples were from locations 1746 and 1744, respectively. Uranium-234 and thorium-230 were detected above background in the 5.0- to 10-foot interval. All other radionuclides were either below background or were not detected.

Conclusion

The data suggest that uranium is the primary radiological contaminant in the surface soil. Total uranium concentrations ranged from 8.0 to 23.7 μg/kg with the highest concentration located in the southern portion of the area, at Boring 1746. The primary inorganic contaminant present at the trap range is lead.

The primary source of radiological contamination is most likely airborne transport from the former production area. The main source for inorganic contamination is lead shot. Wind dispersion of other inorganic constituents may also have occurred.

TABLE D.2-19
TRAP RANGE
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.166	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	10	▒	■	●	○	○	■	○	○	○	●	-	X	-	▒	-	-	○
0.5 - 1	0																	
1 - 1.5	0																	
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	0																	
3 - 5	0																	
5 - 10	1	○	○	●	●	-	-	-	○	○	○		-	-	-	-	-	-
10 - 15	1	-	-	○	○	○	-	-	○	-	○		-	-	-	-	-	-
15 - 20	0																	

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	16.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.68	30.4	59.6
0 - 0.5	16	○	X	▒	●	●	○	■	▒	●	▒	■	●	■	■	●	■	X	○	●	○	○	-	●	-	○	▒
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	16.7	20	0.17	30,700	16.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-19
(Continued)

Depth Interval, Feet	SEMIVOLATILES (ug/kg)									
	Number of Samples	Benzoic Acid	Bis(2-ethylhexyl)phthalate							
Surface Soil:										
0 - 0.5	2	X	X							
0.5 - 1	0									
1 - 1.5	0									
Subsurface Soil:										
1.5 - 3	0									
3 - 5	0									
5 - 10	0									
10 - 15	0									
15 - 20	0									

[ ] "Blank" - Compound was not analyzed.

[-] Analyzed and not detected.

[X] Detection where background level not recorded.

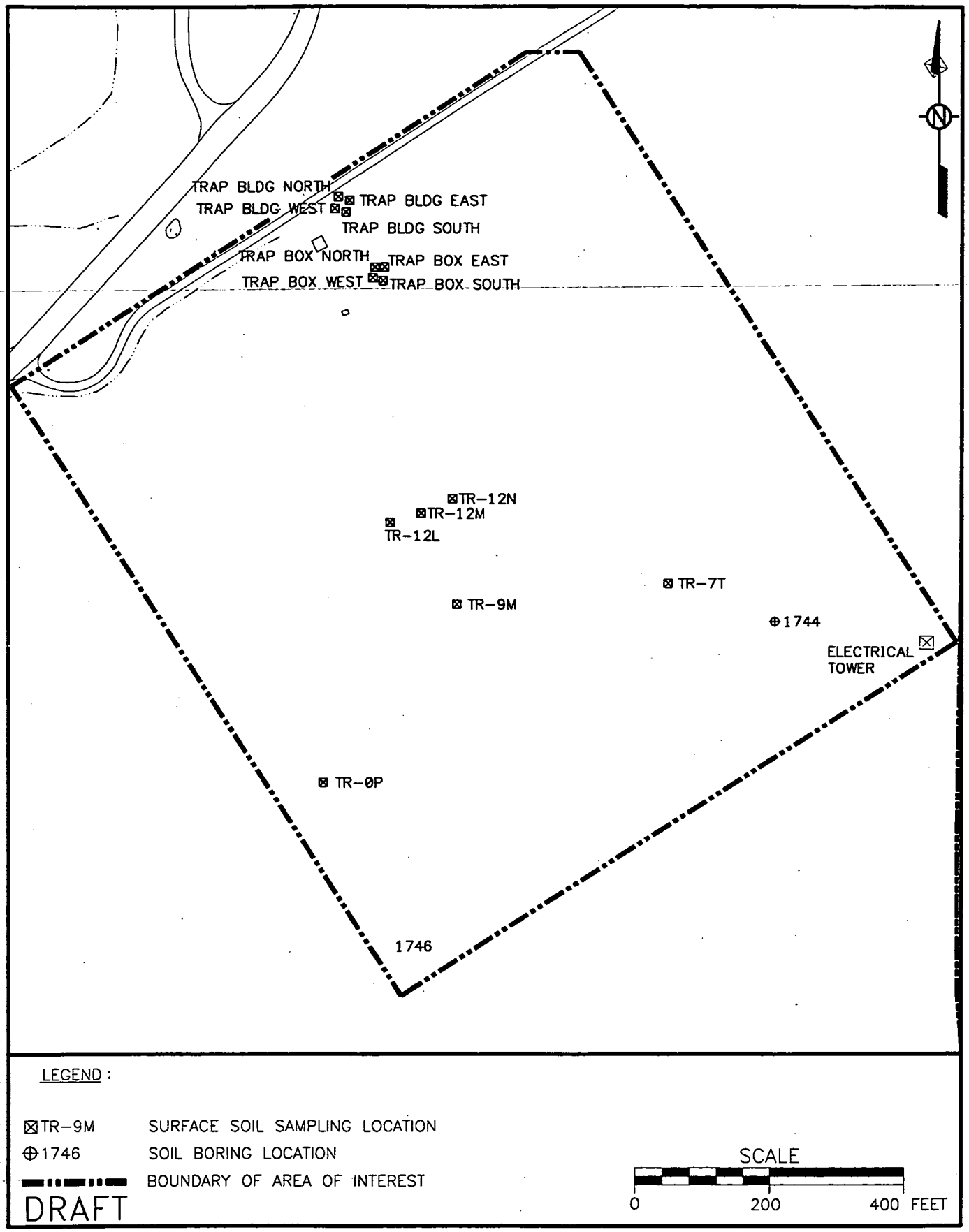

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FIGURE D.2-23. TRAP RANGE

Trap Range Area

Summary Soil Statistics

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	11/11	11	10/11	0.500-3.700	2.06			1.24
URANIUM, TOTAL	MG/KG	11/11	11	11/11	8.000-23.700	14.45			3.73
URANIUM-234	PCI/G	11/11	11	9/11	0.600-4.630	2.12			1.24
THORIUM-230	PCI/G	10/11	11	0/11	0.800-1.770	1.10	0.600	0.600	1.97
RADIUM-226	PCI/G	11/11	11	0/11	0.500-1.400	1.02			1.42
URANIUM-235/236	PCI/G	2/11	11	2/11	0.200-0.810	0.51	0.100	0.600	0.156
THORIUM-232	PCI/G	11/11	11	0/11	0.500-1.040	0.68			1.36
THORIUM, TOTAL	MG/KG	11/11	2	0/11	4.560-9.420	6.21			12.4
RADIUM-228	PCI/G	2/11	11	0/11	0.940-1.090	1.02	0.500	0.500	1.25
THORIUM-228	PCI/G	11/11	11	2/11	0.300-1.630	0.73			1.43
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	7/9	9	7/9	0.400-1.700	0.91	0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/9	9	0/9			0.200	0.600	NA
STRONTIUM-90	PCI/G	10/11	11	10/11	0.800-2.100	1.42	0.600	0.600	0.424
TECHNETIUM-99	PCI/G	0/11	11	0/11			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	9/11	11	0/11	0.230-0.700	0.48	0.200	0.200	0.711

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AREA: Trap Range Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.890-0.890	0.89			1.12
URANIUM, TOTAL	MG/KG	1/1	1	0/1	2.300-2.300	2.30			3.69
URANIUM-234	PCI/G	1/1	1	1/1	1.460-1.460	1.46			1.04
THORIUM-230	PCI/G	1/1	1	1/1	2.370-2.370	2.37			1.91
RADIUM-226	PCI/G	0/1	1	0/1			0.300	0.300	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	0/1	1	0/1			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	1/1	1	0/1	1.950-1.950	1.95			11.1
RADIUM-228	PCI/G	1/1	1	0/1	0.510-0.510	0.51			1.31
THORIUM-228	PCI/G	1/1	1	0/1	1.350-1.350	1.35			1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Trap Range Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	0/1	1	0/1			3.000	3.000	3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.660-0.660	0.66			1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.970-0.970	0.97			1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.510-0.510	0.51			1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	0/1	1	0/1			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	1/1	1	0/1	3.330-3.330	3.33			11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	1.050-1.050	1.05			1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA
GROSS ALPHA	PCI/G	0/1	1	0/1			11.000	11.000	

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	17/17	17	0/17	4130.000-10300.000	7430.59			11900
ANTIMONY	MG/KG	3/9	9	3/9	2.800-4.100	3.57	2.300	2.600	NA
ARSENIC	MG/KG	17/17	17	4/17	2.000-25.300	8.67			8.20
BARIUM	MG/KG	17/17	17	3/17	36.100-127.000	76.17			95.7
BERYLLIUM	MG/KG	8/17	17	4/17	0.350-0.730	0.57	0.860	3.200	0.6
CADMIUM	MG/KG	1/17	17	0/17	0.490-0.490	0.49	0.510	2.100	0.870
CALCIUM	MG/KG	17/17	17	10/17	778.000-87200.000	25204.53			4340
CHROMIUM	MG/KG	17/17	17	3/17	6.400-42.800	13.74			15.5
COBALT	MG/KG	17/17	17	1/17	3.300-14.800	8.32			14.2
COPPER	MG/KG	15/17	17	8/17	8.900-30.400	15.27	10.800	14.800	14.1
CYANIDE	MG/KG	9/11	11	8/11	0.190-4.300	0.87	0.270	0.280	0.270
IRON	MG/KG	17/17	17	2/17	10800.000-40600.000	17270.59			21700
LEAD	MG/KG	17/17	17	12/17	17.500-2180.000	502.82			26.4
MAGNESIUM	MG/KG	17/17	17	9/17	1160.000-26300.000	8266.47			2780
MANGANESE	MG/KG	17/17	17	2/17	361.000-1460.000	758.59			1350
MERCURY	MG/KG	3/17	17	2/17	0.060-6.300	2.31	0.050	0.340	0.3
MOLYBDENUM	MG/KG	2/17	17	2/17	7.500-8.500	8.00	0.920	3.800	NA
NICKEL	MG/KG	8/17	17	0/17	10.300-14.400	12.54	11.300	26.600	20.9
POTASSIUM	MG/KG	13/17	17	5/17	296.000-1860.000	1132.00	896.000	911.000	1230
SELENIUM	MG/KG	4/17	17	0/17	0.230-0.250	0.24	0.200	0.510	0.72
SILICON	MG/KG	17/17	17	0/17	56.900-718.000	302.63			1800
SILVER	MG/KG	0/17	17	0/17			0.420	2.600	NA

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	8/17	17	5/17	35.000-81.100	54.65	30.000	90.000	51.1
THALLIUM	MG/KG	0/17	17	0/17			0.200	0.510	0.58
VANADIUM	MG/KG	17/17	17	0/17	14.000-25.300	20.14			30.4
ZINC	MG/KG	16/17	17	6/17	24.500-168.000	65.51	11.400	11.400	59.6

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			6.000	6.000	
2-BUTANONE	UG/KG	0/2	2	0/2			12.000	13.000	
2-HEXANONE	UG/KG	0/2	2	0/2			12.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			12.000	13.000	
ACETONE	UG/KG	0/2	2	0/2			12.000	13.000	
BENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOFORM	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			12.000	13.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			12.000	13.000	
CHLOROFORM	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			12.000	13.000	

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			6.000	25.000	
STYRENE	UG/KG	0/2	2	0/2			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
TOLUENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			12.000	13.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			12.000	13.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			6.000	6.000	

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			410.000	430.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			410.000	430.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			410.000	430.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			410.000	430.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			2000.000	2100.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			410.000	430.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			410.000	430.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			410.000	430.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			2000.000	2100.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			410.000	430.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			410.000	430.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			410.000	430.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			410.000	430.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			410.000	430.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			2000.000	2100.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			410.000	430.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			820.000	850.000	
3,3'-DICHLOROBENZIDINE	NONE	0/2	2	0/2			2000.000	2100.000	
3-NITROANILINE	UG/KG	0/2	2	0/2			2000.000	2100.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			410.000	430.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			410.000	430.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			410.000	430.000	

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			410.000	430.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			410.000	430.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			2000.000	2100.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			2000.000	2100.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			410.000	430.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			410.000	430.000	
ANTHRACENE	UG/KG	0/2	2	0/2			410.000	430.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			410.000	430.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			410.000	430.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			410.000	430.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			410.000	430.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			410.000	430.000	
BENZOIC ACID	UG/KG	1/2	2	1/2	55.000-55.000	55.00	2000.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			410.000	430.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			410.000	430.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			410.000	430.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			410.000	430.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/2	2	1/2	62.000-62.000	62.00	410.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			410.000	430.000	
CHRYSENE	UG/KG	0/2	2	0/2			410.000	430.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			410.000	430.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			410.000	430.000	

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			410.000	430.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			410.000	430.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			410.000	430.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			410.000	430.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			410.000	430.000	
FLUORENE	UG/KG	0/2	2	0/2			410.000	430.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			410.000	430.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			410.000	430.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			410.000	430.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			410.000	430.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			410.000	430.000	
ISOPHORONE	UG/KG	0/2	2	0/2			410.000	430.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			410.000	430.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			410.000	430.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			410.000	430.000	
NITROBENZENE	UG/KG	0/2	2	0/2			410.000	430.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			410.000	430.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			410.000	430.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			2000.000	2100.000	
PHENOL	UG/KG	0/2	2	0/2			410.000	430.000	
PYRENE	UG/KG	0/2	2	0/2			410.000	430.000	

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			20.000	21.000	
4,4'-DDE	UG/KG	0/2	2	0/2			20.000	21.000	
4,4'-DDT	UG/KG	0/2	2	0/2			20.000	21.000	
ALDRIN	UG/KG	0/2	2	0/2			10.000	10.000	
ALPHA-BHC	UG/KG	0/2	2	0/2			10.000	10.000	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			100.000	100.000	
AROCLOR-1016	UG/KG	0/2	2	0/2			100.000	100.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			100.000	100.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			100.000	100.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			100.000	100.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			100.000	100.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			200.000	210.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			200.000	210.000	
BETA-BHC	UG/KG	0/2	2	0/2			10.000	10.000	
DELTA-BHC	UG/KG	0/2	2	0/2			10.000	10.000	
DIELDRIN	UG/KG	0/2	2	0/2			20.000	21.000	
ENDOSULFAN II	UG/KG	0/2	2	0/2			20.000	21.000	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			20.000	21.000	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			10.000	10.000	
ENDRIN	UG/KG	0/2	2	0/2			20.000	21.000	
ENDRIN KETONE	UG/KG	0/2	2	0/2			20.000	21.000	
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			10.000	10.000	

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AREA: Trap Range Area
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			100.000	100.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			10.000	10.000	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			10.000	10.000	
METHOXYCHLOR	UG/KG	0/2	2	0/2			100.000	100.000	
TOXAPHENE	UG/KG	0/2	2	0/2			200.000	210.000	

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AREA: Trap Range Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 5 - 10 FEET									
TOTAL ORGANIC CARBON	MG/KG	2/2	2	2/2	1188.000-4132.000	2660.00			

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D.2.20 AREA WEST OF K-65 SILOS

The area west of the K-65 silos covers an area located in the far western portion of the FEMP property, immediately west of the Operable Unit 4 study area (Figure D.2-24). No structures or buildings are located in this area.

The K-65 silos area, located on the western side of the FEMP and the eastern side of Paddys Run, includes four silos. These silos were constructed for storing waste slurries resulting from the processing of pitchblende ores and uranium concentrates. Currently, Silos 1 and 2 contain radium-bearing waste residues, Silo 3 contains metal oxide, and Silo 4 is empty. For removal of liquids after settling had occurred, decant ports were installed in Silos 1 and 2. These decant ports were each valved into a single pipe that led to a 9000-gallon decant sump tank. The decant sump tank is located between Silos 1 and 2 at a level below the base of the silos to allow for gravity drainage.

Long-term site personnel at the FEMP indicated that significant quantities of construction rubble and soil had been placed in the area west of the K-65 silos in 1984 following cessation of disposal operations in Waste Pit 4. The soil and rubble were generated during a construction project inside the production area and, as such, potentially contained elevated levels of uranium and other constituents present in the production area. Table D-1 summarizes parameters known to be present or transported to the area.

Soil sampling west of the K-65 silos area was performed during the 1987 Characterization Investigation Study (CIS), followed by the FEMP site-wide Remedial Investigation and the Waste Pit Runoff Control Removal Action. A total of eight soil borings and two surface soil samples were completed in the area as part of these three investigations. A program consisting of the addition of 37 soil borings was completed as part of the 1993 investigation to identify contamination that may exist along the path of a former drainageway in the area.

Surface Soil

Surface soil sampling locations west of the K-65 silos area are shown in Figure D.2-24. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was elevated above background in the area. Table D.2-20 presents the distribution of constituents with respect to background for each sample

depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Within the surface soil of the area, the uranium isotopes uranium-238 and uranium-234, total uranium, thorium-230, and radium-226 exhibited concentrations consistently greater than five times background within the 0- to 1.5-foot depth. The maximum concentration for total uranium in the area was 99 mg/kg and occurred in the 1.0- to 1.5-foot depth interval. Strontium-90 had elevated concentrations greater than two times background from depths of 0 to 1.0 foot. Lead-210 exhibited elevated activities greater than five times background levels from depths of 0 to 1.0 feet (18.99 to 37.09 pCi/g). Activities of polonium-210 were consistently detected from 0 to 1.5 feet (1.45 to 84.5 pCi/g). Uranium-235/236 activities were elevated throughout the surface soil intervals, with the highest levels present in the 1.0- to 1.5-foot depth interval. Technetium-99 (1.2 pCi/g) and plutonium-239/240 (1.10 pCi/g), both of which have no existing background values for comparison, were detected only in the 0- to 0.5-foot and 0.5- to 1.0-foot depths, respectively.

Only a few inorganic analytes exhibited highly elevated concentrations within the top 6 inches of soil and all but three decreased in concentrations within the 1.0- to 1.5-foot depth interval. The only inorganics to still display highly elevated concentrations within the 1.0- to 1.5-foot zone were calcium, magnesium, and sodium.

No analyses were conducted for volatile or semivolatile organic compounds within the surface soil west of the K-65 silos. No PCBs or pesticides were detected within the surface soil west of the K-65 silos.

Subsurface Soil

Subsurface soil sampling locations in the area west of the K-65 silos typically coincide with the general locations of the surface soil samples shown in Figure D.2-24. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-20 presents the distribution of constituents with respect to background for each sample depth interval.

Within the subsurface soil west of the K-65 silos, a number of radionuclides exhibited elevated contaminant levels over depth. These include uranium-238 (0.4 to 15.1 pCi/g), total uranium (1.3 to 58.3 mg/kg), uranium-234 (0.4 to 7.5 pCi/g), radium-226 (0.3 to 137 pCi/g), lead-210 (1.01 to 34.0 pCi/g), polonium-210 (1.08 to 34.37 pCi/g), uranium-235/236 (0.2 to 0.5 pCi/g), plutonium-239/240 (5.50 pCi/g at 5.0 to 10.0 feet), and technetium-99 (1.3 to 18.6 pCi/g). Thorium-230 activities were detected slightly above background from 1.5 to 10.0 feet. Thorium-232 and total thorium levels were slightly elevated from depths of 3.0 to 10.0 feet only. Radium-226 activities were elevated within the first 10 feet of subsurface soil and decreased thereafter. Strontium-90 activities were elevated only within the 5.0- to 10.0-foot depth interval, and cesium-137 was detected in the 1.5- to 3.0-foot and 5.0- to 10.0-foot depth intervals only. The 5.0- to 10.0-foot depth interval was conspicuous because of the number of elevated concentrations of constituents that were otherwise below background levels at previous depths. The elevated levels of these constituents may be attributable to the decant sump tank that is located within this depth in the area.

The inorganic constituents beryllium, cadmium, lead, molybdenum, selenium, and silver consistently displayed elevated concentrations throughout the subsurface depth intervals. Again, similar to the radionuclide characterization, the 5.0- to 10.0-foot depth interval conspicuously displayed a large number of elevated constituents that were previously detected at much lower concentrations within the shallower depths. As previously stated, this may be attributable to the presence of the K-65 decant sump tank, as a number of these constituents are components of the ore concentrates stored in the silos.

A limited number of volatile organic compounds were detected in the subsurface soil. 2-butanone, acetone, and methylene chloride (all of which are common laboratory contaminants) were detected within the 1.5- to 5.0-foot depth. Tetrachloroethene was detected at the 3.0- to 5.0-foot depth interval. The only semivolatile compounds detected in the subsurface soil were bis(2-ethylhexyl)phthalate, flouranthene, and pyrene. No PCBs or pesticides were detected.

Conclusion

Radionuclide constituents elevated above background are present in both the surface and subsurface soil. The presence of plutonium-239/240 cesium-137, strontium-90, and technetium-99 in this area is unexpected; its source is unknown. Many inorganic and radionuclide constituents are present in the subsurface that were not found in the surface. The area is downgradient of the K-65 decant tank.

Analytical data for the decant tank indicate the presence of elevated concentrations of many of the constituents detected in the soil.

The elevated levels of the uranium isotopes and the members of the uranium decay chain (e.g., radium-226, lead-210, or polonium-210) are strong indicators that the source of the contamination is related to the material in the K-65 silos. This could be spills during transfer operations at the silos, or spills or leakage from the K-65 decant sump. The construction debris could have contributed to the uranium contamination. Since most production activities involved purified uranium or its compounds, the construction debris is an unlikely source of the uranium decay-chain products. Available analytical data tend to support the assumption of lateral transport of leachate from the K-65 decant tank toward the west or spills/leaks that occurred during filling of the silos. An additional source for contaminants in the area west of the K-65 silos may be the construction debris.

TABLE D.2-20
WEST OF K-65 SILO
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Lead-210	Polonium-210	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137	Protactinium-231	Radium-224
Surface Soil:																						
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	1.00	ND	0.156	1.36	1.43	1.25	1.47	NA	NA	NA	0.424	ND	ND	0.711	ND	0.900
0 - 0.5	3	■	■	■	▒	■	■	X	▒	●	●	●	○	-	-	-	▒	X	-	-		
0.5 - 1	4	●	■	●	▒	■	■	X	●	○	○	○	○		X	-	▒	-		-		
1 - 1.5	2	■	■	■	▒	■	○	X	■	○	○	-	○		-	-	-	-		-		
Subsurface Soil:																						
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.25	11.4 ug/g	NA	NA	NA	ND	ND	0.436	ND	ND	ND	ND	1.01
1.5 - 3	10	■	■	■	●	▒	■	X	▒	○	○	○	○		X	X	-	X		X		
3 - 5	13	●	■	●	●	■	■	X	●	●	●	-	●	-	X	-	-	X		-	-	X
5 - 10	36	■	■	■	●	■	■	X	▒	●	●	●	●	-	X	-	■	X	-	X		
10 - 15	2	●	●	●	○	-		X	●	○	○	-	○	-	X	-	-	-		-		
15 - 20	1	●	●	●	○	○			-	○	○	○	○	-	-	-	-	-	-	-		

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	16.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	61.1	0.58	30.4	59.6
0 - 0.5	4	●	X	●	○	●	■	■	●	○	●	○	○	○	■	○	-	X	●	●	●	○	X	▒	○	○	●
0.5 - 1	5	●	-	●	○	●	▒	■	●	●	▒	-	●	○	■	○	-	-	●	●	○	○	X	▒	○	○	▒
1 - 1.5	2	●	-	○	○	●	-	■	●	○	●	-	●	○	■	○	-	-	●	●	-	○	-	▒	-	○	○
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150000	20.7	15.7	20	0.17	30,700	16.6	42,600	1300	0.29	2.70	34.3	1980	ND	1690	ND	285	0.49	37.8	82
1.5 - 3	9	○	-	○	○	▒	●	○	○	○	●	-	○	●	○	○	-	▒	○	○	X	○	X	○	○	○	●
3 - 5	17	●	-	▒	●	▒	▒	○	●	●	●	▒	●	▒	○	○	○	▒	●	●	X	○	X	○	○	●	●
5 - 10	37	■	-	■	■	■	▒	▒	■	■	■	-	■	■	▒	■	○	▒	■	■	X	▒	X	▒	○	■	■
10 - 15	3	○	-	○	○	-	▒	○	○	○	○	■	○	○	○	○	-	-	○	○	-	○	X	○	○	○	○
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-20
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)													SEMIVOLATILES (ug/kg)												
	Number of Samples	2-Butanone	Acetone	Methylene chloride	Tetrachloroethene									Number of Samples	Bis(2-ethylhexyl)phthalate	Fluoranthene	Pyrene									
Surface Soil:																										
0 - 0.5	0													0												
0.5 - 1	0													0												
1 - 1.5	0													2												
Subsurface Soil:																										
1.5 - 3	1	X	X	-	-									1	-	X	X									
3 - 5	1		X	X	X									1	X	-	-									
5 - 10	0													0												
10 - 15	1													1	X	-	-									
15 - 20	0																									

☐ "Blank" - Compound was not analyzed.

☐ - Analyzed and not detected.

☒ Detection where background level not recorded.

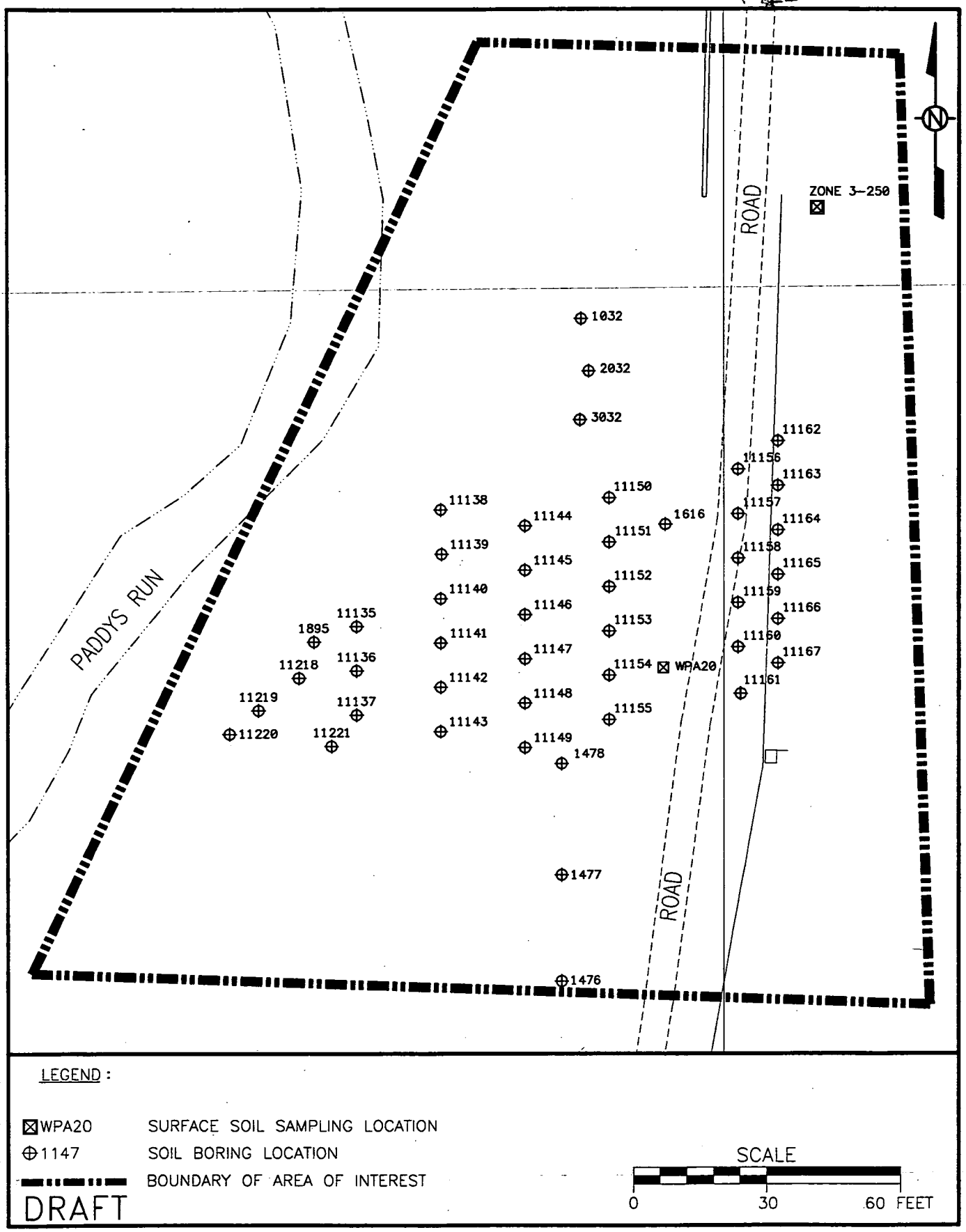

FIGURE D.2-24. AREA WEST OF K-65 SILOS

Area West of K-65 Silos

Summary Soil Statistics

AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	4/4	4	4/4	2.270-20.800	7.67	0.100	0.600	1.24
URANIUM, TOTAL	MG/KG	4/4	4	4/4	28.800-64.000	46.14	0.100	0.600	3.73
URANIUM-234	PCI/G	4/4	4	4/4	2.200-6.900	3.85	0.100	0.600	1.24
THORIUM-230	PCI/G	4/4	4	4/4	3.900-8.500	5.45	0.100	0.600	1.97
RADIUM-226	PCI/G	4/4	4	4/4	2.300-34.700	12.75	0.100	0.600	1.42
LEAD-210	PCI/G	1/1	1	1/1	18.990-18.990	18.99	0.100	0.600	1.30
POLONIUM-210	PCI/G	3/3	3	3/3	14.860-50.830	29.35	0.100	0.600	NA
URANIUM-235/236	PCI/G	2/4	4	2/4	0.200-0.400	0.30	0.100	0.600	0.156
THORIUM-232	PCI/G	4/4	4	1/4	0.700-1.400	1.05	0.100	0.600	1.36
THORIUM, TOTAL	MG/KG	4/4	0	1/4	6.384-12.769	9.58	0.100	0.600	12.4
RADIUM-228	PCI/G	1/4	4	1/4	1.400-1.400	1.40	0.500	0.500	1.25
THORIUM-228	PCI/G	4/4	4	0/4	0.700-1.200	1.03	0.100	0.600	1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.200	0.200	NA
STRONTIUM-90	PCI/G	3/5	0	3/5	0.700-1.000	0.83	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/5	5	1/5	1.200-1.200	1.20	1.000	1.100	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.100	1.100	NA
CESIUM-137	PCI/G	0/3	3	0/3			0.200	0.200	0.711
GROSS ALPHA	PCI/G	3/3	0	3/3	129.000-537.000	318.67	0.100	0.600	
GROSS BETA	PCI/G	3/3	0	3/3	106.000-357.000	219.00	0.100	0.600	

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AREA: Area West of K65 Silos
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	4/4	4	4/4	1.500-6.000	3.23	0.100	0.100	1.24
URANIUM, TOTAL	MG/KG	4/4	4	4/4	12.300-20.600	17.78	0.100	0.100	3.73
URANIUM-234	PCI/G	4/4	4	4/4	1.300-5.500	2.75	0.100	0.100	1.24
THORIUM-230	PCI/G	5/5	5	4/5	1.300-4.900	3.58	0.100	0.100	1.97
RADIUM-226	PCI/G	5/5	5	4/5	0.400-75.100	24.16	0.100	0.100	1.42
LEAD-210	PCI/G	1/1	1	1/1	37.090-37.090	37.09	0.100	0.100	1.30
POLONIUM-210	PCI/G	5/5	5	5/5	1.455-84.500	38.68	0.100	0.100	NA
URANIUM-235/236	PCI/G	2/4	4	2/4	0.200-0.300	0.25	0.100	0.100	0.156
THORIUM-232	PCI/G	5/5	5	0/5	0.300-1.100	0.80	0.100	0.100	1.36
THORIUM, TOTAL	MG/KG	5/5	0	0/5	2.736-10.032	7.30	0.100	0.100	12.4
RADIUM-228	PCI/G	1/5	5	0/5	0.800-0.800	0.80	0.500	0.500	1.25
THORIUM-228	PCI/G	5/5	5	0/5	0.700-0.800	0.74	0.100	0.100	1.43
PLUTONIUM-239/240	PCI/G	1/2	2	1/2	1.100-1.100	1.10	0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/4	0	0/4			0.200	0.200	NA
STRONTIUM-90	PCI/G	1/5	0	1/5	1.000-1.000	1.00	0.500	0.600	0.424
TECHNETIUM-99	PCI/G	0/5	5	0/5			1.000	1.000	NA
CESIUM-137	PCI/G	0/5	0	0/5			0.200	0.200	0.711
GROSS ALPHA	PCI/G	5/5	0	5/5	7.000-1750.000	598.10	0.100	0.100	
GROSS BETA	PCI/G	5/5	0	5/5	19.700-1520.000	513.78	0.100	0.100	

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AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	2/2	2	2/2	2.100-12.500	7.30	57.400	57.400	1.24
URANIUM, TOTAL	MG/KG	2/2	2	2/2	7.400-99.600	53.50	57.400	57.400	3.73
URANIUM-234	PCI/G	2/2	2	2/2	1.300-11.500	6.40	57.400	57.400	1.24
THORIUM-230	PCI/G	2/2	2	1/2	0.800-9.200	5.00	57.400	57.400	1.97
RADIUM-226	PCI/G	2/2	2	1/2	0.500-12.600	6.55	57.400	57.400	1.42
LEAD-210	PCI/G	1/1	1	0/1	1.251-1.251	1.25	57.400	57.400	1.30
POLONIUM-210	PCI/G	2/2	2	2/2	1.902-11.360	6.63	57.400	57.400	NA
URANIUM-235/236	PCI/G	1/1	1	1/1	1.000-1.000	1.00	57.400	57.400	0.156
THORIUM-232	PCI/G	2/2	2	0/2	0.600-1.100	0.85	57.400	57.400	1.36
THORIUM, TOTAL	MG/KG	2/2	0	0/2	5.472-10.033	7.75	57.400	57.400	12.4
RADIUM-228	PCI/G	0/2	2	0/2			0.500	0.500	1.25
THORIUM-228	PCI/G	2/2	2	0/2	0.400-1.100	0.75	57.400	57.400	1.43
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.700	0.424
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	0.711
GROSS ALPHA	PCI/G	1/2	0	1/2	190.000-190.000	190.00	5.700	5.700	
GROSS BETA	PCI/G	2/2	0	2/2	19.400-161.000	90.20	57.400	57.400	

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	9/9	0	6/9	0.900-15.100	5.23	6.000	6.000	1.12
URANIUM, TOTAL	MG/KG	11/11	0	11/11	4.300-58.300	22.70	6.000	6.000	3.69
URANIUM-234	PCI/G	9/9	0	7/9	0.500-7.500	2.98	6.000	6.000	1.04
THORIUM-230	PCI/G	10/10	0	2/10	0.800-2.400	1.30	6.000	6.000	1.91
RADIUM-226	PCI/G	9/9	0	3/9	0.400-4.600	1.54	6.000	6.000	1.47
LEAD-210	PCI/G	3/7	7	3/7	2.393-17.980	7.90	0.500	1.018	.850
POLONIUM-210	PCI/G	10/10	10	10/10	1.080-6.413	2.47	6.000	6.000	NA
URANIUM-235/236	PCI/G	4/9	0	4/9	0.200-0.500	0.33	0.100	0.100	0.150
THORIUM-232	PCI/G	10/10	0	0/10	0.300-1.200	0.73	6.000	6.000	1.26
THORIUM, TOTAL	MG/KG	10/10	0	0/10	2.736-10.944	6.66	6.000	6.000	11.1
RADIUM-228	PCI/G	2/11	0	0/11	0.600-0.800	0.70	0.500	0.500	1.31
THORIUM-228	PCI/G	10/10	0	0/10	0.300-1.000	0.71	6.000	6.000	1.38
PLUTONIUM-239/240	PCI/G	2/7	7	2/7	0.300-0.300	0.30	0.200	0.200	NA
PLUTONIUM-238	PCI/G	1/8	0	1/8	0.400-0.400	0.40	0.200	0.200	NA
STRONTIUM-90	PCI/G	0/9	0	0/9			0.500	0.800	.436
TECHNETIUM-99	PCI/G	2/11	0	2/11	3.000-4.200	3.60	1.000	1.000	NA
CESIUM-137	PCI/G	3/11	0	3/11	0.300-0.300	0.30	0.200	0.300	NA
GROSS ALPHA	PCI/G	11/11	0	11/11	8.300-76.000	27.56	6.000	6.000	
GROSS BETA	PCI/G	11/11	0	11/11	30.500-73.200	46.22	6.000	6.000	

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AREA: Area West of K65 Silos
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	14/14	14	7/14	0.400-3.600	1.70	11.000	11.000	1.12
URANIUM, TOTAL	MG/KG	17/17	17	11/17	2.600-26.600	8.50	11.000	11.000	3.69
URANIUM-234	PCI/G	14/14	14	6/14	0.400-2.800	1.23	11.000	11.000	1.04
THORIUM-230	PCI/G	16/17	17	3/17	0.800-2.900	1.27	0.600	0.600	1.91
RADIUM-226	PCI/G	15/18	18	4/18	0.300-137.000	10.10	0.250	0.250	1.47
LEAD-210	PCI/G	9/10	10	9/10	1.211-34.000	6.77	1.043	1.043	.850
POLONIUM-210	PCI/G	19/19	19	19/19	1.090-20.900	4.29	11.000	11.000	NA
URANIUM-235/236	PCI/G	2/13	13	2/13	0.200-0.200	0.20	0.100	0.600	0.150
THORIUM-232	PCI/G	15/17	17	2/17	0.400-1.300	0.75	0.300	0.600	1.26
THORIUM, TOTAL	MG/KG	17/17	0	2/17	1.420-11.856	6.25	11.000	11.000	11.1
RADIUM-228	PCI/G	0/18	18	0/18			0.500	1.300	1.31
THORIUM-228	PCI/G	16/17	17	2/17	0.400-1.500	0.76	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	3/13	13	3/13	0.300-0.700	0.47	0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/13	13	0/13			0.200	0.600	NA
STRONTIUM-90	PCI/G	0/14	14	0/14			0.500	3.500	.436
TECHNETIUM-99	PCI/G	3/18	18	3/18	1.700-7.700	5.17	1.000	1.200	NA
CESIUM-137	PCI/G	0/17	17	0/17			0.200	0.300	NA
GROSS ALPHA	PCI/G	15/17	0	15/17	7.200-41.900	17.46	5.000	6.100	
GROSS BETA	PCI/G	17/17	0	17/17	20.700-53.500	33.57	11.000	11.000	
PROTACTINIUM-231	PCI/G	0/1	1	0/1			7.200	7.200	NA
RADIUM-224	PCI/G	1/1	1	1/1	1.330-1.330	1.33	11.000	11.000	

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AREA: Area West of K65 Silos
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	37/38	0	22/38	0.400-7.800	1.78	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	44/44	0	29/44	0.500-20.700	5.77	37.700	52.400	3.69
URANIUM-234	PCI/G	38/38	0	19/38	0.400-5.500	1.49	37.700	52.400	1.04
THORIUM-230	PCI/G	43/45	0	2/45	0.400-2.100	1.20	0.600	0.600	1.91
RADIUM-226	PCI/G	36/44	0	7/44	0.300-11.000	1.16	0.250	0.300	1.47
LEAD-210	PCI/G	22/28	28	21/28	0.842-21.200	3.92	0.572	1.200	.850
POLONIUM-210	PCI/G	41/41	41	41/41	0.682-34.370	3.43	37.700	52.400	NA
URANIUM-235/236	PCI/G	5/37	0	5/37	0.200-0.400	0.26	0.100	0.600	0.150
THORIUM-232	PCI/G	38/45	45	2/45	0.300-1.400	0.78	0.100	0.600	1.26
THORIUM, TOTAL	MG/KG	45/45	0	2/45	0.912-12.768	6.58	37.700	52.400	11.1
RADIUM-228	PCI/G	4/46	0	1/46	0.600-1.400	0.89	0.500	0.500	1.31
THORIUM-228	PCI/G	41/45	0	1/45	0.200-1.600	0.76	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/6	6	0/6			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	7/31	0	7/31	0.400-5.500	1.80	0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/31	0	0/31			0.200	1.200	NA
STRONTIUM-90	PCI/G	3/33	0	3/33	0.600-2.800	1.37	0.500	3.300	.436
TECHNETIUM-99	PCI/G	5/46	46	5/46	1.300-18.600	9.68	1.000	1.200	NA
RUTHENIUM-106	PCI/G	0/5	5	0/5			1.000	1.000	NA
CESIUM-137	PCI/G	3/42	42	3/42	0.400-1.500	0.80	0.200	0.600	NA
GROSS ALPHA	PCI/G	36/40	0	36/40	5.100-282.000	29.95	4.400	6.600	
GROSS BETA	PCI/G	40/40	0	40/40	11.800-159.000	41.30	37.700	52.400	

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AREA: Area West of K65 Silos
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	3/3	3	2/3	0.913-2.700	2.04	6.000	6.000	1.12
URANIUM, TOTAL	MG/KG	2/2	2	2/2	8.600-11.400	10.00	6.000	6.000	3.69
URANIUM-234	PCI/G	3/3	3	2/3	0.932-2.300	1.78	6.000	6.000	1.04
THORIUM-230	PCI/G	2/2	2	0/2	1.000-1.600	1.30	6.000	6.000	1.91
RADIUM-226	PCI/G	0/2	2	0/2			0.250	0.250	1.47
POLONIUM-210	PCI/G	2/2	2	2/2	0.627-1.640	1.13	6.000	6.000	NA
URANIUM-235/236	PCI/G	1/3	3	1/3	0.200-0.200	0.20	0.100	0.600	0.150
THORIUM-232	PCI/G	1/2	2	0/2	0.800-0.800	0.80	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	2/2	0	0/2	5.380-7.296	6.34	6.000	6.000	11.1
RADIUM-228	PCI/G	0/2	2	0/2			0.500	0.500	1.31
THORIUM-228	PCI/G	2/2	2	0/2	0.686-0.700	0.69	6.000	6.000	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/3	3	1/3	2.100-2.100	2.10	0.600	0.700	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.600	2.100	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.200	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA
GROSS ALPHA	PCI/G	2/2	0	2/2	19.300-20.200	19.75	6.000	6.000	
GROSS BETA	PCI/G	2/2	0	2/2	29.900-31.700	30.80	6.000	6.000	

AREA: Area West of K65 Silos
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	1.300-1.300	1.30	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	1/1	1	1/1	4.152-4.152	4.15	0.600	0.600	3.69
URANIUM-234	PCI/G	1/1	1	1/1	2.100-2.100	2.10	0.600	0.600	1.04
THORIUM-230	PCI/G	1/1	1	0/1	1.600-1.600	1.60	0.600	0.600	1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.000-1.000	1.00	0.600	0.600	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.700-0.700	0.70	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	1/1	0	0/1	6.384-6.384	6.38	0.600	0.600	11.1
RADIUM-228	PCI/G	1/1	1	0/1	0.600-0.600	0.60	0.600	0.600	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.800-0.800	0.80	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

AREA: Area West of K65 Silos
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	5/5	5	0/5	0.600-0.997	0.80	6.000	6.000	1.12
URANIUM, TOTAL	MG/KG	1/4	4	0/4	2.740-2.740	2.74	3.200	4.500	3.69
URANIUM-234	PCI/G	4/5	5	1/5	0.800-1.300	0.96	0.600	0.600	1.04
THORIUM-230	PCI/G	5/5	5	0/5	0.800-1.750	1.14	6.000	6.000	1.91
RADIUM-226	PCI/G	4/4	4	0/4	0.660-0.870	0.78	6.000	6.000	1.47
LEAD-210	PCI/G	2/3	3	0/3	0.560-0.560	0.56	0.500	0.500	.850
POLONIUM-210	PCI/G	3/3	3	3/3	1.230-1.740	1.57	6.000	6.000	NA
URANIUM-235/236	PCI/G	0/5	5	0/5			0.600	0.600	0.150
THORIUM-232	PCI/G	2/5	5	0/5	0.730-0.730	0.73	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	5/5	5	0/5	1.760-6.600	4.97	6.000	6.000	11.1
RADIUM-228	PCI/G	3/5	5	0/5	0.580-0.740	0.69	0.500	0.500	1.31
THORIUM-228	PCI/G	4/5	5	1/5	0.905-1.470	1.23	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/2	2	2/2	0.600-0.808	0.70	6.000	6.000	.436
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA
ACTINIUM-227	PCI/G	0/2	2	0/2			0.300	0.600	.06
PROTACTINIUM-231	PCI/G	0/3	3	0/3			1.100	1.700	NA
RADIUM-224	PCI/G	3/3	3	3/3	0.670-0.830	0.78	6.000	6.000	

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AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	4/4	4	1/4	9860.000-13000.000	10860.00	0.100	0.600	11900
ANTIMONY	MG/KG	1/3	3	1/3	29.800-29.800	29.80	1.000	1.200	NA
ARSENIC	MG/KG	4/4	4	1/4	5.700-9.000	7.25	0.100	0.600	8.20
BARIUM	MG/KG	4/4	4	0/4	63.200-76.400	70.83	0.100	0.600	95.7
BERYLLIUM	MG/KG	4/4	4	3/4	0.490-0.960	0.78	0.100	0.600	0.6
CADMIUM	MG/KG	1/4	4	1/4	4.900-4.900	4.90	1.000	1.200	0.870
CALCIUM	MG/KG	4/4	4	4/4	27500.000-68600.000	52075.00	0.100	0.600	4340
CHROMIUM	MG/KG	4/4	4	3/4	12.400-19.400	16.05	0.100	0.600	15.5
COBALT	MG/KG	4/4	4	0/4	8.200-11.600	10.20	0.100	0.600	14.2
COPPER	MG/KG	4/4	4	4/4	16.700-20.500	18.58	0.100	0.600	14.1
CYANIDE	MG/KG	3/4	4	0/4	0.150-0.240	0.19	0.120	0.120	0.270
IRON	MG/KG	4/4	4	0/4	24.500-20800.000	13681.13	0.100	0.600	21700
LEAD	MG/KG	4/4	4	0/4	16.600-26.100	21.58	0.100	0.600	26.4
MAGNESIUM	MG/KG	4/4	4	4/4	12000.000-20500.000	16600.00	0.100	0.600	2780
MANGANESE	MG/KG	4/4	4	0/4	526.000-693.000	587.50	0.100	0.600	1350
MERCURY	MG/KG	0/4	4	0/4			0.100	0.120	0.3
MOLYBDENUM	MG/KG	2/4	4	2/4	4.300-4.700	4.50	2.700	2.800	NA
NICKEL	MG/KG	4/4	4	2/4	17.900-26.600	21.73	0.100	0.600	20.9
POTASSIUM	MG/KG	4/4	4	2/4	988.000-1590.000	1282.00	0.100	0.600	1230
SELENIUM	MG/KG	2/4	4	1/4	0.650-0.840	0.75	0.420	0.490	0.72
SILICON	MG/KG	3/3	3	0/3	218.000-652.000	430.67	0.100	0.600	1800
SILVER	MG/KG	2/4	4	2/4	4.800-9.700	7.25	1.100	1.200	NA

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AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	4/4	4	4/4	87.000-127.000	101.88	0.100	0.600	51.1
THALLIUM	MG/KG	1/4	4	0/4	0.510-0.510	0.51	0.420	0.460	0.58
VANADIUM	MG/KG	4/4	4	0/4	23.200-27.700	25.58	0.100	0.600	30.4
ZINC	MG/KG	4/4	4	1/4	47.400-64.700	54.93	0.100	0.600	59.6

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AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	5/5	5	2/5	9260.000-13500.000	11392.00	0.100	0.100	11900
ANTIMONY	MG/KG	0/4	4	0/4			1.000	2.600	NA
ARSENIC	MG/KG	5/5	5	1/5	6.600-8.700	7.74	0.100	0.100	8.20
BARIUM	MG/KG	5/5	5	0/5	65.700-82.900	72.12	0.100	0.100	95.7
BERYLLIUM	MG/KG	4/5	5	2/5	0.520-0.890	0.69	1.200	1.200	0.6
CADMIUM	MG/KG	1/5	5	1/5	1.900-1.900	1.90	1.000	1.100	0.870
CALCIUM	MG/KG	5/5	5	5/5	9740.000-80800.000	51048.00	0.100	0.100	4340
CHROMIUM	MG/KG	5/5	5	4/5	12.100-19.500	16.62	0.100	0.100	15.5
COBALT	MG/KG	5/5	5	1/5	7.900-14.300	12.12	0.100	0.100	14.2
COPPER	MG/KG	5/5	5	5/5	16.300-49.200	25.12	0.100	0.100	14.1
CYANIDE	MG/KG	0/4	4	0/4			0.110	0.570	0.270
IRON	MG/KG	5/5	5	4/5	18200.000-27900.000	23580.00	0.100	0.100	21700
LEAD	MG/KG	5/5	5	0/5	16.700-26.000	21.80	0.100	0.100	26.4
MAGNESIUM	MG/KG	5/5	5	5/5	3450.000-20600.000	13800.00	0.100	0.100	2780
MANGANESE	MG/KG	5/5	5	0/5	553.000-741.000	634.20	0.100	0.100	1350
MERCURY	MG/KG	0/5	5	0/5			0.060	0.110	0.3
MOLYBDENUM	MG/KG	0/5	5	0/5			2.600	4.200	NA
NICKEL	MG/KG	5/5	5	2/5	17.200-30.300	21.66	0.100	0.100	20.9
POTASSIUM	MG/KG	5/5	5	3/5	910.000-1530.000	1228.00	0.100	0.100	1230
SELENIUM	MG/KG	2/5	5	0/5	0.460-0.650	0.56	0.430	2.200	0.72
SILICON	MG/KG	5/5	5	0/5	98.900-593.000	407.98	0.100	0.100	1800
SILVER	MG/KG	1/5	5	1/5	4.200-4.200	4.20	0.230	1.100	NA

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AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
SODIUM	MG/KG	5/5	5	5/5	82.900-134.000	102.36	0.100	0.100	51.1
THALLIUM	MG/KG	1/4	4	0/4	0.260-0.260	0.26	0.430	2.100	0.58
VANADIUM	MG/KG	5/5	5	0/5	20.700-29.700	25.22	0.100	0.100	30.4
ZINC	MG/KG	5/5	5	2/5	46.100-189.000	82.02	0.100	0.100	59.6

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AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	2/2	2	1/2	8220.000-16200.000	12210.00	57.400	57.400	11900
ANTIMONY	MG/KG	0/1	1	0/1			1.100	3.000	NA
ARSENIC	MG/KG	2/2	2	0/2	2.000-6.800	4.40	57.400	57.400	8.20
BARIUM	MG/KG	2/2	2	0/2	56.400-88.100	72.25	57.400	57.400	95.7
BERYLLIUM	MG/KG	1/2	2	1/2	0.900-0.900	0.90	1.100	1.100	0.6
CADMIUM	MG/KG	0/2	2	0/2			1.100	1.100	0.870
CALCIUM	MG/KG	2/2	2	2/2	55200.000-57300.000	56250.00	57.400	57.400	4340
CHROMIUM	MG/KG	2/2	2	1/2	9.300-20.300	14.80	57.400	57.400	15.5
COBALT	MG/KG	2/2	2	0/2	7.900-11.800	9.85	57.400	57.400	14.2
COPPER	MG/KG	2/2	2	1/2	12.800-19.700	16.25	57.400	57.400	14.1
CYANIDE	MG/KG	0/2	2	0/2			0.110	0.270	0.270
IRON	MG/KG	2/2	2	1/2	14700.000-24900.000	19800.00	57.400	57.400	21700
LEAD	MG/KG	1/1	1	0/1	21.000-21.000	21.00	57.400	57.400	26.4
MAGNESIUM	MG/KG	2/2	2	2/2	11300.000-18900.000	15100.00	57.400	57.400	2780
MANGANESE	MG/KG	2/2	2	0/2	406.000-622.000	514.00	57.400	57.400	1350
MERCURY	MG/KG	0/2	2	0/2			0.050	0.100	0.3
MOLYBDENUM	MG/KG	0/2	2	0/2			2.600	3.700	NA
NICKEL	MG/KG	2/2	2	1/2	13.800-23.300	18.55	57.400	57.400	20.9
POTASSIUM	MG/KG	2/2	2	1/2	930.000-2270.000	1600.00	57.400	57.400	1230
SELENIUM	MG/KG	0/1	1	0/1			0.440	1.100	0.72
SILICON	MG/KG	2/2	2	0/2	597.000-818.000	707.50	57.400	57.400	1800
SILVER	MG/KG	0/2	2	0/2			0.430	1.100	NA

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AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	1/2	2	1/2	139.000-139.000	139.00	119.000	119.000	51.1
THALLIUM	MG/KG	0/2	2	0/2			0.220	0.440	0.58
VANADIUM	MG/KG	2/2	2	0/2	17.300-29.500	23.40	57.400	57.400	30.4
ZINC	MG/KG	1/2	2	0/2	58.800-58.800	58.80	57.400	57.400	59.6

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	10/10	10	0/10	6100.000-14700.000	10040.00	6.000	6.000	16100
ANTIMONY	MG/KG	0/7	7	0/7			0.950	2.900	NA
ARSENIC	MG/KG	8/8	8	0/8	3.700-9.100	6.81	6.000	6.000	9.57
BARIUM	MG/KG	10/10	10	0/10	41.900-84.800	69.24	6.000	6.000	119
BERYLLIUM	MG/KG	4/10	10	2/10	0.470-2.800	1.39	1.100	1.900	0.620
CADMIUM	MG/KG	4/10	10	4/10	1.200-1.700	1.48	0.950	1.200	0.910
CALCIUM	MG/KG	10/10	10	0/10	6710.000-119000.000	62861.00	6.000	6.000	150000
CHROMIUM	MG/KG	10/10	10	0/10	8.300-16.300	13.83	6.000	6.000	20.7
COBALT	MG/KG	9/10	10	0/10	7.200-11.000	9.79	6.100	6.100	15.7
COPPER	MG/KG	8/10	10	3/10	13.900-32.000	20.20	14.300	20.700	20.0
CYANIDE	MG/KG	0/8	8	0/8			0.110	0.300	.17
IRON	MG/KG	10/10	10	0/10	14200.000-22900.000	20290.00	6.000	6.000	30700
LEAD	MG/KG	8/8	8	4/8	9.300-27.300	15.81	6.000	6.000	15.6
MAGNESIUM	MG/KG	10/10	10	0/10	3650.000-38300.000	19166.00	6.000	6.000	42600
MANGANESE	MG/KG	10/10	10	0/10	434.000-956.000	645.90	6.000	6.000	1300
MERCURY	MG/KG	0/10	10	0/10			0.060	0.100	0.29
MOLYBDENUM	MG/KG	1/8	8	1/8	5.500-5.500	5.50	2.600	4.000	2.7
NICKEL	MG/KG	8/10	10	0/10	15.500-27.500	21.19	14.500	20.600	34.3
POTASSIUM	MG/KG	10/10	10	0/10	698.000-1610.000	1065.70	6.000	6.000	1980
SELENIUM	MG/KG	1/4	4	1/4	3.300-3.300	3.30	0.420	2.300	NA
SILICON	MG/KG	7/7	7	0/7	114.000-647.000	338.00	6.000	6.000	1590
SILVER	MG/KG	1/9	9	1/9	4.900-4.900	4.90	0.220	1.100	NA

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	8/10	10	0/10	87.100-216.000	121.73	76.700	84.800	285
THALLIUM	MG/KG	1/10	10	0/10	0.280-0.280	0.28	0.220	0.980	0.49
VANADIUM	MG/KG	10/10	10	0/10	17.900-36.800	26.16	6.000	6.000	37.8
ZINC	MG/KG	10/10	10	2/10	40.700-158.000	69.51	6.000	6.000	82.0

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	18/18	18	3/18	8770.000-20400.000	12003.89	11.000	11.000	16100
ANTIMONY	MG/KG	0/12	12	0/12			0.880	2.800	NA
ARSENIC	MG/KG	17/17	17	6/17	2.800-34.300	9.02	11.000	11.000	9.57
BARIUM	MG/KG	18/18	18	1/18	48.700-175.000	81.94	11.000	11.000	119
BERYLLIUM	MG/KG	14/17	17	11/17	0.360-2.900	1.26	0.430	1.300	0.620
CADMIUM	MG/KG	2/18	18	2/18	1.500-2.200	1.85	0.880	1.300	0.910
CALCIUM	MG/KG	18/18	18	0/18	4200.000-126000.000	45599.44	11.000	11.000	150000
CHROMIUM	MG/KG	18/18	18	5/18	11.000-28.700	16.98	11.000	11.000	20.7
COBALT	MG/KG	16/18	18	1/18	4.800-22.800	10.84	9.900	10.700	15.7
COPPER	MG/KG	13/18	18	7/18	13.600-33.800	21.26	18.100	33.800	20.0
CYANIDE	MG/KG	1/16	16	1/16	0.630-0.630	0.63	0.110	0.580	.17
IRON	MG/KG	18/18	18	5/18	14800.000-37100.000	25316.67	11.000	11.000	30700
LEAD	MG/KG	17/17	17	10/17	6.800-40.000	17.83	11.000	11.000	15.6
MAGNESIUM	MG/KG	18/18	18	0/18	2620.000-40100.000	15190.56	11.000	11.000	42600
MANGANESE	MG/KG	18/18	18	0/18	378.000-1140.000	653.33	11.000	11.000	1300
MERCURY	MG/KG	1/18	18	0/18	0.080-0.080	0.08	0.060	0.120	0.29
MOLYBDENUM	MG/KG	4/17	17	4/17	4.300-9.600	6.95	2.600	4.500	2.7
NICKEL	MG/KG	15/18	18	4/18	12.800-63.000	28.61	21.500	25.300	34.3
POTASSIUM	MG/KG	18/18	18	2/18	797.000-2930.000	1424.28	11.000	11.000	1980
SELENIUM	MG/KG	4/16	16	4/16	0.420-0.870	0.70	0.230	2.400	NA
SILICON	MG/KG	12/13	13	0/13	60.500-767.000	444.52	104.000	104.000	1590
SILVER	MG/KG	7/15	15	7/15	0.480-9.800	5.28	0.230	1.100	NA

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
SODIUM	MG/KG	9/18	18	0/18	91.800-167.000	131.31	45.700	210.000	285
THALLIUM	MG/KG	2/18	18	0/18	0.260-0.310	0.29	0.230	0.470	0.49
VANADIUM	MG/KG	18/18	18	3/18	18.100-47.000	28.62	11.000	11.000	37.8
ZINC	MG/KG	18/18	18	5/18	39.300-102.000	68.02	11.000	11.000	82.0

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	39/39	39	9/39	3900.000-87000.000	13696.67	37.700	52.400	16100
ANTIMONY	MG/KG	0/24	24	0/24			0.880	9.600	NA
ARSENIC	MG/KG	35/36	36	7/36	3.100-74.200	10.12	14.700	14.700	9.57
BARIUM	MG/KG	39/39	39	7/39	14.900-872.000	94.38	37.700	52.400	119
BERYLLIUM	MG/KG	27/39	39	21/39	0.490-5.200	1.24	0.420	3.300	0.620
CADMIUM	MG/KG	7/39	39	7/39	1.200-2.400	1.81	0.880	9.600	0.910
CALCIUM	MG/KG	39/39	39	7/39	2180.000-314000.000	70035.13	37.700	52.400	150000
CHROMIUM	MG/KG	39/39	39	8/39	6.200-115.000	18.55	37.700	52.400	20.7
COBALT	MG/KG	33/39	39	3/39	2.900-105.000	12.79	3.300	10.400	15.7
COPPER	MG/KG	34/39	39	13/39	6.900-171.000	25.93	13.500	37.300	20.0
CYANIDE	MG/KG	0/35	35	0/35			0.110	5.100	.17
IRON	MG/KG	39/39	39	9/39	8060.000-193000.000	28967.95	37.700	52.400	30700
LEAD	MG/KG	36/36	36	17/36	8.900-139.000	21.83	37.700	52.400	15.6
MAGNESIUM	MG/KG	39/39	39	1/39	2090.000-93200.000	15528.46	37.700	52.400	42600
MANGANESE	MG/KG	39/39	39	6/39	344.000-12200.000	1087.87	37.700	52.400	1300
MERCURY	MG/KG	1/39	39	0/39	0.050-0.050	0.05	0.050	1.000	0.29
MOLYBDENUM	MG/KG	11/37	37	11/37	3.500-9.000	5.75	2.300	23.100	2.7
NICKEL	MG/KG	37/39	39	10/39	7.300-186.000	30.14	9.300	18.600	34.3
POTASSIUM	MG/KG	39/39	39	7/39	576.000-10900.000	1643.74	37.700	52.400	1980
SELENIUM	MG/KG	2/31	31	2/31	0.470-1.800	1.14	0.400	3.900	NA
SILICON	MG/KG	29/29	29	1/29	24.600-5950.000	675.19	37.700	52.400	1590
SILVER	MG/KG	9/35	35	9/35	3.400-10.500	6.86	0.230	9.600	NA

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	34/39	39	1/39	42.200-638.000	139.71	136.000	209.000	285
THALLIUM	MG/KG	3/39	39	0/39	0.230-0.440	0.35	0.230	3.900	0.49
VANADIUM	MG/KG	39/39	39	10/39	10.400-190.000	33.38	37.700	52.400	37.8
ZINC	MG/KG	37/39	39	11/39	21.600-486.000	83.82	37.700	52.400	82.0

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	3/3	3	0/3	2620.000-7770.000	4920.00	6.000	6.000	16100
ANTIMONY	MG/KG	0/2	2	0/2			0.890	5.200	NA
ARSENIC	MG/KG	3/3	3	0/3	1.900-3.900	3.23	6.000	6.000	9.57
BARIUM	MG/KG	3/3	3	0/3	15.400-33.500	27.00	6.000	6.000	119
BERYLLIUM	MG/KG	0/3	3	0/3			0.360	1.100	0.620
CADMIUM	MG/KG	1/3	3	1/3	4.200-4.200	4.20	0.890	0.930	0.910
CALCIUM	MG/KG	3/3	3	0/3	113000.000-147000.000	131666.67	6.000	6.000	150000
CHROMIUM	MG/KG	3/3	3	0/3	7.800-16.900	11.90	6.000	6.000	20.7
COBALT	MG/KG	3/3	3	0/3	3.200-7.700	5.87	6.000	6.000	15.7
COPPER	MG/KG	2/2	2	0/2	10.500-15.700	13.10	6.000	6.000	20.0
CYANIDE	MG/KG	2/3	3	2/3	0.260-1.500	0.88	0.110	0.110	.17
IRON	MG/KG	3/3	3	0/3	10100.000-18800.000	13700.00	6.000	6.000	30700
LEAD	MG/KG	3/3	3	0/3	5.000-10.200	7.90	6.000	6.000	15.6
MAGNESIUM	MG/KG	3/3	3	0/3	23700.000-32000.000	27066.67	6.000	6.000	42600
MANGANESE	MG/KG	3/3	3	0/3	288.000-505.000	384.33	6.000	6.000	1300
MERCURY	MG/KG	0/3	3	0/3			0.100	0.110	0.29
MOLYBDENUM	MG/KG	0/3	3	0/3			1.700	3.700	2.7
NICKEL	MG/KG	3/3	3	0/3	6.700-21.800	14.47	6.000	6.000	34.3
POTASSIUM	MG/KG	3/3	3	0/3	413.000-1330.000	894.33	6.000	6.000	1980
SELENIUM	MG/KG	0/2	2	0/2			0.350	0.420	NA
SILICON	MG/KG	2/2	2	0/2	539.000-728.000	633.50	6.000	6.000	1590
SILVER	MG/KG	1/3	3	1/3	3.900-3.900	3.90	1.700	1.800	NA

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
SODIUM	MG/KG	3/3	3	0/3	185.000-239.000	206.33	6.000	6.000	285
THALLIUM	MG/KG	1/3	3	0/3	0.280-0.280	0.28	0.350	0.420	0.49
VANADIUM	MG/KG	3/3	3	0/3	13.300-21.800	18.17	6.000	6.000	37.8
ZINC	MG/KG	3/3	3	0/3	29.200-43.300	36.60	6.000	6.000	82.0

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 20 - 9999 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	5840.000-6600.000	6220.00	6.000	6.000	16100
ANTIMONY	MG/KG	2/2	2	2/2	21.200-22.100	21.65	6.000	6.000	NA
ARSENIC	MG/KG	2/2	2	0/2	3.200-3.900	3.55	6.000	6.000	9.57
BARIUM	MG/KG	2/2	2	0/2	34.600-47.600	41.10	6.000	6.000	119
BERYLLIUM	MG/KG	2/2	2	2/2	0.730-0.770	0.75	6.000	6.000	0.620
CADMIUM	MG/KG	2/2	2	2/2	3.700-4.300	4.00	6.000	6.000	0.910
CALCIUM	MG/KG	2/2	2	0/2	135000.000-144000.000	139500.00	6.000	6.000	150000
CHROMIUM	MG/KG	2/2	2	2/2	29.000-33.300	31.15	6.000	6.000	20.7
COBALT	MG/KG	2/2	2	0/2	9.600-10.100	9.85	6.000	6.000	15.7
COPPER	MG/KG	2/2	2	1/2	19.900-24.500	22.20	6.000	6.000	20.0
CYANIDE	MG/KG	1/2	2	1/2	0.282-0.282	0.28	0.110	0.110	.17
IRON	MG/KG	2/2	2	0/2	13800.000-15400.000	14600.00	6.000	6.000	30700
LEAD	MG/KG	2/2	2	0/2	6.500-8.900	7.70	6.000	6.000	15.6
MAGNESIUM	MG/KG	2/2	2	0/2	23700.000-24800.000	24250.00	6.000	6.000	42600
MANGANESE	MG/KG	2/2	2	0/2	415.000-463.000	439.00	6.000	6.000	1300
MERCURY	MG/KG	0/2	2	0/2			0.110	0.110	0.29
MOLYBDENUM	MG/KG	2/2	2	2/2	10.600-11.100	10.85	6.000	6.000	2.7
NICKEL	MG/KG	2/2	2	0/2	21.300-23.200	22.25	6.000	6.000	34.3
POTASSIUM	MG/KG	2/2	2	0/2	1090.000-1400.000	1245.00	6.000	6.000	1980
SELENIUM	MG/KG	0/2	2	0/2			0.450	0.450	NA
SILVER	MG/KG	2/2	2	2/2	17.100-17.600	17.35	6.000	6.000	NA
SODIUM	MG/KG	2/2	2	0/2	182.000-243.000	212.50	6.000	6.000	285

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 20 - 9999 FEET									
THALLIUM	MG/KG	0/2	2	0/2			0.450	0.450	0.49
VANADIUM	MG/KG	2/2	2	0/2	22.500-23.300	22.90	6.000	6.000	37.8
ZINC	MG/KG	2/2	2	0/2	34.200-43.300	38.75	6.000	6.000	82.0

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	1/1	1	1/1	8.000-8.000	8.00	6.000	6.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	1/1	1	1/1	79.000-79.000	79.00	6.000	6.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			10.000	10.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	1/1	1	1/1	230.000-230.000	230.00	11.000	11.000	
BENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
METHYLENE CHLORIDE	UG/KG	1/1	1	1/1	37.000-37.000	37.00	11.000	11.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	1/1	1	1/1	1.000-1.000	1.00	11.000	11.000	
TOLUENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			11.000	11.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			7.000	7.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 20 - 9999 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			6.000	6.000	
2-BUTANONE	UG/KG	1/1	1	1/1	2.000-2.000	2.00	6.000	6.000	
2-HEXANONE	UG/KG	0/2	2	0/2			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	1/2	2	1/2	24.000-24.000	24.00	11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			11.000	11.000	
BENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOFORM	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			11.000	11.000	
CARBON DISULFIDE	UG/KG	1/2	2	1/2	11.000-11.000	11.00	6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			11.000	11.000	
CHLOROFORM	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	11.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 20 - 9999 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	1/2	2	1/2	9.000-9.000	9.00	4.000	4.000	
STYRENE	UG/KG	0/2	2	0/2			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
TOLUENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			11.000	11.000	
XYLENES, TOTAL	UG/KG	1/2	2	1/2	9.000-9.000	9.00	6.000	6.000	

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			770.000	770.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
CHRYSENE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DIBENZOFURAN	UG/KG	0/1	1	0/1			390.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORANTHENE	UG/KG	1/1	1	1/1	40.000-40.000	40.00	6.000	6.000	
FLUORENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			390.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
ISOPHORONE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
NITROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			390.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			390.000	390.000	
PHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
PYRENE	UG/KG	1/1	1	1/1	45.000-45.000	45.00	6.000	6.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			950.000	950.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			380.000	380.000	
3-NITROANILINE	NONE	0/1	1	0/1			950.000	950.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			950.000	950.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			950.000	950.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	76.000-76.000	76.00	11.000	11.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			380.000	380.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			770.000	770.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	280.000-280.000	280.00	6.000	6.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
CHRYSENE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	

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DRAFT

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			390.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			390.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
ISOPHORONE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
NITROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			390.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			390.000	390.000	
PHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	

001202

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			1800.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			380.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			1800.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			380.000	390.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			380.000	390.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	390.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			1800.000	1900.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			380.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			760.000	780.000	
3-NITROANILINE	NONE	0/2	2	0/2			1800.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			1800.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			380.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	390.000	

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001203

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			380.000	390.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	390.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			1800.000	1900.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			1800.000	1900.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			380.000	390.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			380.000	390.000	
ANTHRACENE	UG/KG	0/2	2	0/2			380.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	390.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			380.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			380.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	390.000	
BENZOIC ACID	UG/KG	1/2	2	1/2	84.000-84.000	84.00	1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			380.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			380.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			380.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			380.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/2	2	1/2	120.000-120.000	120.00	380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	390.000	
CHRYSENE	UG/KG	0/2	2	0/2			380.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	390.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	390.000	

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001204

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	390.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			380.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	390.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	390.000	
FLUORENE	UG/KG	0/2	2	0/2			380.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			380.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			380.000	390.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			380.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			380.000	390.000	
ISOPHORONE	UG/KG	0/2	2	0/2			380.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			380.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			380.000	390.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			380.000	390.000	
NITROBENZENE	UG/KG	0/2	2	0/2			380.000	390.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			380.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			1800.000	1900.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			380.000	390.000	
PHENOL	UG/KG	0/2	2	0/2			380.000	390.000	
PYRENE	UG/KG	0/2	2	0/2			380.000	390.000	
TRIBUTYL PHOSPHATE	UG/KG	0/2	2	0/2			380.000	390.000	

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004205

DRAFT

AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			20.000	20.000	
4,4'-DDE	UG/KG	0/1	1	0/1			20.000	20.000	
4,4'-DDT	UG/KG	0/1	1	0/1			20.000	20.000	
ALDRIN	UG/KG	0/1	1	0/1			10.000	10.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			10.000	10.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			100.000	100.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			200.000	200.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			200.000	200.000	
BETA-BHC	UG/KG	0/1	1	0/1			10.000	10.000	
DELTA-BHC	UG/KG	0/1	1	0/1			10.000	10.000	
DIELDRIN	UG/KG	0/1	1	0/1			20.000	20.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			20.000	20.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			20.000	20.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			10.000	10.000	
ENDRIN	UG/KG	0/1	1	0/1			20.000	20.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			20.000	20.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			10.000	10.000	

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001208

DRAFT

AREA: Area West of K65 Silos
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			100.000	100.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			10.000	10.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			10.000	10.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			100.000	100.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.800	3.800	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			77.000	77.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			38.000	38.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.000	2.000	
ENDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.800	3.800	

002208

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

001209

5696

AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			19.000	19.000	
4,4'-DDE	UG/KG	0/1	1	0/1			19.000	19.000	
4,4'-DDT	UG/KG	0/1	1	0/1			19.000	19.000	
ALDRIN	UG/KG	0/1	1	0/1			9.400	9.400	
ALPHA-BHC	UG/KG	0/1	1	0/1			9.400	9.400	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			94.000	94.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			94.000	94.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			94.000	94.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			94.000	94.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			94.000	94.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			94.000	94.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			190.000	190.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			190.000	190.000	
BETA-BHC	UG/KG	0/1	1	0/1			9.400	9.400	
DELTA-BHC	UG/KG	0/1	1	0/1			9.400	9.400	
DIELDRIN	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			19.000	19.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			9.400	9.400	
ENDRIN	UG/KG	0/1	1	0/1			19.000	19.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			19.000	19.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			9.400	9.400	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			94.000	94.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			9.400	9.400	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			9.400	9.400	
METHOXYCHLOR	UG/KG	0/1	1	0/1			94.000	94.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	190.000	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 20 - 9999 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			18.000	19.000	
4,4'-DDE	UG/KG	0/2	2	0/2			18.000	19.000	
4,4'-DDT	UG/KG	0/2	2	0/2			18.000	19.000	
ALDRIN	UG/KG	0/2	2	0/2			9.200	9.300	
ALPHA-BHC	UG/KG	0/2	2	0/2			9.200	9.300	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			92.000	93.000	
AROCLOR-1016	UG/KG	0/2	2	0/2			92.000	93.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			92.000	93.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			92.000	93.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			92.000	93.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			92.000	93.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			180.000	190.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			180.000	190.000	
BETA-BHC	UG/KG	0/2	2	0/2			9.200	9.300	
DELTA-BHC	UG/KG	0/2	2	0/2			9.200	9.300	
DIELDRIN	UG/KG	0/2	2	0/2			18.000	19.000	
ENDOSULFAN II	UG/KG	0/2	2	0/2			18.000	19.000	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			18.000	19.000	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			9.200	9.300	
ENDRIN	UG/KG	0/2	2	0/2			18.000	19.000	
ENDRIN KETONE	UG/KG	0/2	2	0/2			18.000	19.000	
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			9.200	9.300	

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AREA: Area West of K65 Silos
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 20 - 9999 FEET									
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			92.000	93.000	
HEPTACHLOR	UG/KG	0/2	2	0/2			9.200	9.300	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			9.200	9.300	
METHOXYCHLOR	UG/KG	0/2	2	0/2			92.000	93.000	
TOXAPHENE	UG/KG	0/2	2	0/2			180.000	190.000	

D.2.21 K-65 SLURRY LINE AND CLEARWELL LINE (WEST OF THE PRODUCTION AREA)

The K-65 slurry line extends from the hot raffinate building in the Plant 2/3 area to the K-65 silos (Figure D.2-25). Waste material generated from the processing of pitchblende ore was pumped to the silos through the slurry pipeline, which was wholly contained in a 2.5-foot-deep, concrete trench approximately 1460 feet in length. The radioactivity of the waste material was primarily attributable to the presence of radium-226, but other radionuclides, metals, and, possibly, organic constituents most likely made up the contents of the slurry. Table D-1 summarizes parameters known to be present.

The Clearwell line is a system of pipelines that extend from the Clearwell, located in the waste pit area (Operable Unit 1), to Manhole 175, located south of the sewage treatment plant, with a portion of the pipe running through the K-65 pipe trench. Prior to February 1987, processed wastewater from the general sump was pumped through a system of pipelines to Waste Pit 5. Decant water from Waste Pit 5 flowed to the Clearwell and was pumped through the Clearwell line to Manhole 175 for discharge into the Great Miami River. The Clearwell currently receives only waste pit area runoff and rainfall recharge to Waste Pit 5. The pipelines currently in service from the Clearwell to Manhole 175 consist of both old and new lines. Water from the Clearwell line is sampled and analyzed as part of a National Pollution Discharge Elimination System (NPDES) permit. The analytical results from the permit report indicate elevated levels of total uranium in the water and moderately elevated levels of dissolved chromium, magnesium, nickel, and copper (Westinghouse Environmental Management Company of Ohio Waste Water Information Report, August 8, 1990).

Soil sampling of the area near the K-65 slurry line and the Clearwell line was performed during the 1987 CIS and the FEMP site-wide Remedial Investigation under the Operable Unit 5 RI/FS Work Plan Addenda. More than 100 surface soil samples were collected in the area west of the former production area as part of the CIS investigation. Soil samples collected from areas located along the traverse of the pipeline inside the production area were included in the individual area discussions in which the sample points fell. Only those sample points located outside the western boundary of the production area are discussed in this section.

Surface Soil

Surface soil sampling locations in the area of the K-65 slurry line and the Clearwell line west of the production area are shown in Figure D.2-25. Due to the voluminous number of sample location

points present in this area, Figure D.2-25 includes an inset of sample I.D. numbers (i.e. [A]-[ZZ]) which correspond to the soil sample locations within the area of interest. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-21 presents the distribution of constituents with respect to background for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Highly elevated concentrations of uranium-238, total uranium, uranium-234, uranium-235/236, thorium-230, thorium-232, total thorium, thorium-228, radium-226, and strontium-90, were detected in the 0- to 0.5-foot depth interval near the K-65 slurry line and the Clearwell line west of the production area. The only radionuclides to exhibit significant contamination at depth in the surface soil of this area were uranium-238, total uranium, uranium-234, thorium-232, total thorium, and radium-226. The maximum total uranium concentration in the surface soil was 628 mg/kg.

Only four inorganic constituents showed consistently elevated concentrations of at least two times background levels from 0- to 1.0-foot. These constituents were beryllium, calcium, magnesium, and sodium.

The only volatile organic compounds to be detected in the surface soil in the vicinity of the K-65 slurry line and Clearwell line west of the production area were acetone and toluene, both within the 0.5- to 1.0-foot depth interval only. Thirteen semivolatile organic compounds, mainly PAHs, were detected in the surface soil of eastern portion of the area. A total of 4 samples were collected from this area, which detected various semivolatile organics at levels ranging from 56 μg/kg to 10,000 μg/kg. However, only bis(2-ethylhexyl)phthalate was detected deeper than 6 inches.

Aroclor-1254, a PCB, was detected in the 0- to 0.5-foot depth interval only at sampling location WPA-31, located east of K-65 silos. The level of Aroclor-1254 was 14 μg/kg. No pesticides were detected in the surface soil samples.

Subsurface Soil

Subsurface sampling locations are located in the same areas as surface sampling as shown in Figure D.2-25. Table D.2-21 prevents the distribution of constituents with respect to the background for each sample interval.

The only radionuclide to exhibit consistently highly elevated concentrations throughout all depths of the subsurface soil was total uranium. The maximum concentration of total uranium was 116 mg/kg, which was detected within the 1.5- to 3.0-foot depth interval. However, uranium-238, uranium-234, and thorium-230 were detected at elevated levels sporadically throughout the 1.5- to 20.0-foot subsurface depths as well.

No inorganic constituents showed continuously elevated concentrations above background in the subsurface soil of this area. Methylene chloride, toluene, and trichloroethene were the only volatile organic compounds detected in the subsurface soil of this area. Of these, only toluene was detected in more than one depth interval (5.0 to 10.0 feet and 10.0 to 15.0 feet).

The only semivolatile organic compounds to be detected in the subsurface soil in the vicinity of the K-65 slurry line and Clearwell line west of the production area were bis(2-ethylhexyl)phthalate, a common laboratory contaminant, and n-nitroso-di-n-propylamine, both within the 5.0- to 10.0-foot depth only. No PCBs or pesticides were detected in the subsurface soil of this area.

Conclusions

Radiological contaminants in this area include high levels of uranium, thorium, and radium isotopes. Activities of uranium isotopes and total uranium present at levels exceeding five times background throughout the surface and subsurface soil depth intervals (to a depth of 20 feet) along the lines. Inorganic contaminants were, however, in the surface soil intervals, but only beryllium, calcium, magnesium, and sodium were present at levels exceeding five times background. Other chemical contaminants, including volatile organics, semivolatile organics, pesticides, and PCBs, were detected in a few locations and at relatively low concentrations. The majority of the soil contamination present in this area is attributable to radionuclide constituents that probably leaked from one or both of the pipelines present in this area. Airborne deposition of radiological constituents may be attributable to the overall radiological contamination in this area. Based on the level and distribution of radium-226 in the samples, the K-65 slurry line is a potential source of radiological contaminants in the soil of

eastern portion of the area. The waste pit area may be sources of radiological contamination in the western portion of the area, which is adjacent to the Clearwell and Waste Pit No. 1. Inorganic and organic contamination of the area is negligible, and the uranium contamination envelops all areas containing less significant concentrations of these constituents.

TABLE D.2-21
K-65 CLEARWELL LINE (WEST OF PRODUCTION AREA)
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	54	■	■			■		■	■	●	■	X	X	X	⊗	X	X	⊗
0.5 - 1	14	■	■	○	●	■	●	■	■	●	○	-	-	-	●	-	-	-
1 - 1.5	17	■	■			■		⊗	⊗								-	○
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	2	●	■	○	●	⊗	-	○	○	○	○	-	-	-	●	-	-	-
3 - 5	1	■	■	■	○	○	-	-	●	-	○		-	-	-	-	-	-
5-10	4	■	■	■	■	⊗	●	●	●	●	●	X	-	X	-	-	-	-
10 - 15	1	-	⊗	-	○	○	-	-	●	-	○	-	-	-	-	-	-	-
15 - 20	1	■	■	■	⊗	○	■	○	●	○	○	-	-	-	-	X	-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	4	●	X	●	●	⊗	⊗	■	●	○	⊗	○	●	■	■	○	-	X	●	●	-	○	X	⊗	-	○	●
0.5 - 1	3	●	-	●	●	⊗	●	■	●	○	●	-	●	○	⊗	○	-	-	●	●	-	○	-	⊗	-	●	●
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	16.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	235	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5-10	2	●	X	○	●	●	-	○	○	○	●	-	○	○	○	○	-	⊗	○	●	-	○	X	○	-	●	○
10 - 15	1	○	-	○	○	●	⊗	○	●	○	○	-	○	○	○	○	-		●	○	-		X	○	-	○	○
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

⊗ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

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TABLE D.2-21
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)								SEMIVOLATILES (ug/kg)															PESTICIDES/PCBs (ug/kg)									
	Number of Samples	Acetone	Methylene chloride	Toluene	Trichloroethene				Number of Samples	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Ideno(1,2,3-cd)pyrene	N-nitro-di-N-propylamine	Phenanthrene	Pyrene	Number of Samples	Aroclor-1254								
Surface Soil:																																	
0 - 0.5	3	-	-	-	-				3	X	X	X	X	X	X	X	X	X	X	X	-	X	X	4	X								
0.5 - 1	3	X	-	X	-				3	-	-	-	-	-	-	X	-	-	-	-	-	-	-	3	-								
1 - 1.5	0								0															0									
Subsurface Soil:																																	
1.5 - 3	2	-	-	-	-				1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0									
3 - 5	1	-	-	-	-				0															0									
5-10	4	-	-	X	-				2	-	-	-	-	-	-	X	-	-	-	-	X	-	-	2	-								
10 - 15	1	-	X	X	X				1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-								
15 - 20	0								0															0									

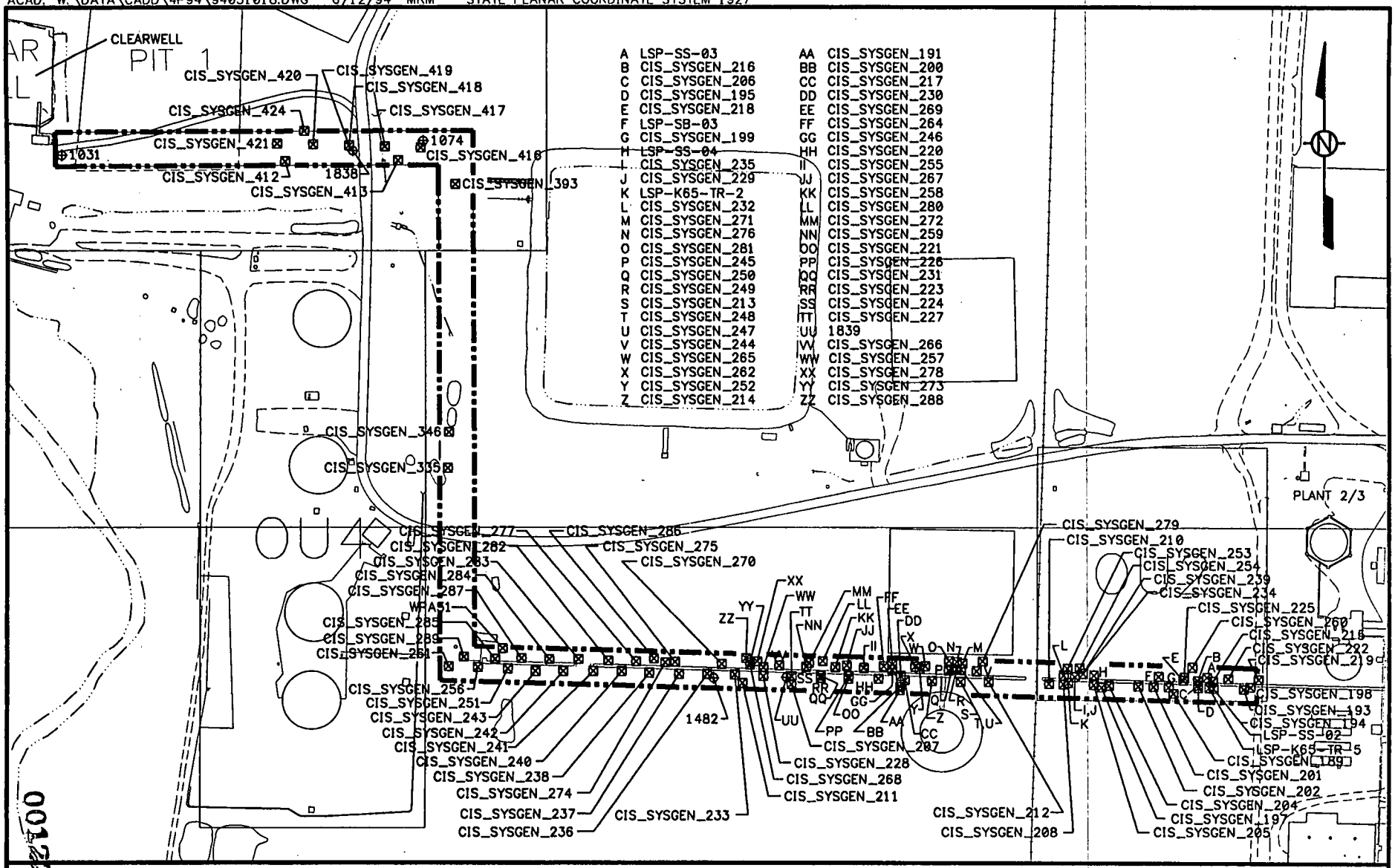
"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

001219

ACAD: W:\DATA\CADD\4P94\94051018.DWG 6/12/94 MRM STATE PLANAR COORDINATE SYSTEM 1927



LEGEND:

⊕1074	SOIL BORING LOCATION
⊠CIS_SYSGEN_416	SURFACE SOIL SAMPLING LOCATION
▬▬▬	BOUNDARY OF AREA OF INTEREST

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SCALE

0 200 400 FEET

FIGURE D.2-25. K-65 SLURRY LINE AND CLEARWELL LINE WEST OF THE FORMER PRODUCTION AREA

K-65 Slurry Line and Clearwell Line West of Production Area

Summary Soil Statistics

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	67/114	0	67/114	3.300-210.000	20.40	4.000	120.000	1.24
URANIUM, TOTAL	MG/KG	118/120	0	118/120	9.834-628.824	55.31	11.000	11.000	3.73
URANIUM-234	PCI/G	10/10	0	10/10	5.580-89.900	38.39	12.000	13.000	1.24
THORIUM-230	PCI/G	7/10	10	7/10	2.640-229.000	78.41	14.600	53.100	1.97
RADIUM-226	PCI/G	106/112	0	76/112	0.400-220.000	7.41	0.700	2.000	1.42
LEAD-210	PCI/G	4/4	0	4/4	3.700-168.580	72.66	12.000	13.000	1.30
URANIUM-235/236	PCI/G	11/11	0	11/11	0.290-6.500	2.02	12.000	13.000	0.156
THORIUM-232	PCI/G	89/113	0	53/113	0.210-40.000	4.19	0.300	6.500	1.36
THORIUM, TOTAL	MG/KG	116/116	0	71/116	1.915-364.800	34.10	12.000	13.000	12.4
RADIUM-228	PCI/G	3/3	3	3/3	1.350-1.800	1.52	12.000	13.000	1.25
THORIUM-228	PCI/G	10/10	10	6/10	0.690-62.700	9.11	12.000	13.000	1.43
NEPTUNIUM-237	PCI/G	1/10	0	1/10	0.214-0.214	0.21	0.200	0.200	NA
PLUTONIUM-239/240	PCI/G	1/10	10	1/10	0.300-0.300	0.30	0.200	0.470	NA
PLUTONIUM-238	PCI/G	1/10	10	1/10	0.600-0.600	0.60	0.200	0.200	NA
STRONTIUM-90	PCI/G	1/10	0	1/10	1.440-1.440	1.44	0.500	0.700	0.424
TECHNETIUM-99	PCI/G	6/10	0	6/10	1.790-602.000	103.10	1.000	1.200	NA
RUTHENIUM-106	PCI/G	3/100	0	3/100	2.250-10.550	7.52	1.000	37.100	NA
CESIUM-137	PCI/G	32/113	0	10/113	0.209-2.010	0.71	0.200	4.700	0.711
GROSS ALPHA	PCI/G	3/3	3	3/3	20.600-93.500	47.53	12.000	13.000	
GROSS BETA	PCI/G	3/3	3	3/3	32.900-57.100	43.55	12.000	13.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	11/30	0	11/30	4.400-65.600	14.86	2.500	68.600	1.24
URANIUM, TOTAL	MG/KG	30/32	0	30/32	7.450-204.428	42.11	11.000	11.000	3.73
URANIUM-234	PCI/G	3/3	3	3/3	3.830-4.400	4.17	12.000	12.000	1.24
THORIUM-230	PCI/G	3/3	3	1/3	1.800-2.000	1.91	12.000	12.000	1.97
RADIUM-226	PCI/G	30/30	0	20/30	0.700-75.900	6.99	12.000	12.000	1.42
URANIUM-235/236	PCI/G	3/3	3	3/3	0.200-0.220	0.21	12.000	12.000	0.156
THORIUM-232	PCI/G	23/30	0	11/30	0.600-14.600	2.46	0.300	4.200	1.36
THORIUM, TOTAL	MG/KG	30/30	0	15/30	2.736-133.152	21.13	12.000	12.000	12.4
RADIUM-228	PCI/G	3/3	3	1/3	1.120-1.330	1.22	12.000	12.000	1.25
THORIUM-228	PCI/G	3/3	3	0/3	0.960-1.070	1.03	12.000	12.000	1.43
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.200	0.200	NA
PLUTONIUM-239/240	PCI/G	0/3	3	0/3			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.200	0.200	NA
STRONTIUM-90	PCI/G	1/3	3	1/3	0.841-0.841	0.84	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/30	0	0/30			1.000	21.600	NA
CESIUM-137	PCI/G	0/30	0	0/30			0.200	2.900	0.711
GROSS ALPHA	PCI/G	3/3	3	3/3	22.700-24.200	23.45	12.000	12.000	
GROSS BETA	PCI/G	3/3	3	3/3	27.100-29.800	28.73	12.000	12.000	

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	2/17	0	2/17	56.300-78.200	67.25	2.500	12.400	1.24
URANIUM, TOTAL	MG/KG	17/17	0	17/17	7.450-233.036	42.58	2.500	12.400	3.73
RADIUM-226	PCI/G	14/16	0	7/16	0.600-11.900	3.20	0.700	0.800	1.42
THORIUM-232	PCI/G	16/17	0	6/17	0.900-5.100	1.91	0.500	0.500	1.36
THORIUM, TOTAL	MG/KG	17/17	0	6/17	4.560-46.512	16.68	2.500	12.400	12.4
RUTHENIUM-106	PCI/G	0/17	0	0/17			1.000	12.500	NA
CESIUM-137	PCI/G	1/17	0	0/17	0.400-0.400	0.40	0.200	1.200	0.711

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	1/3	0	1/3	1.230-1.230	1.23	4.000	7.600	1.12
URANIUM, TOTAL	MG/KG	4/4	0	4/4	5.010-116.000	38.90	6.000	6.000	3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.990-0.990	0.99	6.000	6.000	1.04
THORIUM-230	PCI/G	1/1	1	1/1	3.740-3.740	3.74	6.000	6.000	1.91
RADIUM-226	PCI/G	3/3	0	3/3	2.040-3.700	2.75	6.000	6.000	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/3	0	0/3	1.200-1.200	1.20	0.976	1.100	1.26
THORIUM, TOTAL	MG/KG	3/4	0	0/4	8.810-10.944	9.93	18.000	18.000	11.1
RADIUM-228	PCI/G	1/1	1	0/1	1.090-1.090	1.09	6.000	6.000	1.31
THORIUM-228	PCI/G	1/1	1	0/1	1.270-1.270	1.27	6.000	6.000	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.200	0.200	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	0.511-0.511	0.51	6.000	6.000	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	0	0/3			1.000	3.100	NA
CESIUM-137	PCI/G	0/3	0	0/3			0.200	0.600	NA
GROSS ALPHA	PCI/G	1/1	0	1/1	19.200-19.200	19.20	6.000	6.000	
GROSS BETA	PCI/G	1/1	0	1/1	29.300-29.300	29.30	6.000	6.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	14.300-14.300	14.30	6.000	6.000	1.12
URANIUM, TOTAL	MG/KG	2/3	0	2/3	11.000-40.600	25.80	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	5.510-5.510	5.51	6.000	6.000	1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.960-0.960	0.96	6.000	6.000	1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.590-0.590	0.59	6.000	6.000	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	0/1	1	0/1			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	2/3	0	1/3	3.740-18.000	10.87	18.000	18.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.620-0.620	0.62	6.000	6.000	1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA
GROSS ALPHA	PCI/G	1/1	0	1/1	25.400-25.400	25.40	6.000	6.000	
GROSS BETA	PCI/G	1/1	0	1/1	16.600-16.600	16.60	6.000	6.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	4/4	4	3/4	0.880-13.400	5.92	6.000	18.000	1.12
URANIUM, TOTAL	MG/KG	6/7	0	6/7	4.090-45.700	18.02	11.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	3/4	0.860-5.850	3.92	6.000	18.000	1.04
THORIUM-230	PCI/G	4/4	4	2/4	1.460-20.300	7.25	6.000	18.000	1.91
RADIUM-226	PCI/G	4/4	4	2/4	0.880-5.930	2.61	6.000	18.000	1.47
URANIUM-235/236	PCI/G	2/4	4	2/4	0.260-0.277	0.27	0.100	0.600	0.150
THORIUM-232	PCI/G	4/4	4	1/4	0.709-1.428	0.94	6.000	18.000	1.26
THORIUM, TOTAL	MG/KG	5/7	0	2/7	6.400-18.000	10.42	18.000	18.000	11.1
RADIUM-228	PCI/G	4/4	4	1/4	0.740-1.720	1.12	6.000	18.000	1.31
THORIUM-228	PCI/G	4/4	4	1/4	0.970-1.750	1.26	6.000	18.000	1.38
NEPTUNIUM-237	PCI/G	1/2	2	1/2	0.305-0.305	0.31	0.200	0.200	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.200	0.600	NA
PLUTONIUM-238	PCI/G	1/4	4	1/4	0.344-0.344	0.34	0.200	0.600	NA
STRONTIUM-90	PCI/G	0/4	4	0/4			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/4	4	0/4			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	4	0/4			0.200	0.200	NA
GROSS ALPHA	PCI/G	4/4	0	4/4	12.700-48.100	31.84	6.000	18.000	
GROSS BETA	PCI/G	4/4	0	4/4	27.500-41.200	32.20	6.000	18.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	1/4	0	1/4	11.000-11.000	11.00	2.066	11.000	3.69
URANIUM-234	PCI/G	0/1	1	0/1			0.600	0.600	1.04
THORIUM-230	PCI/G	1/1	1	0/1	1.200-1.200	1.20	6.000	6.000	1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.600-0.600	0.60	6.000	6.000	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	0/1	1	0/1			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	1/4	0	1/4	18.000-18.000	18.00	5.472	18.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.600-0.600	0.60	6.000	6.000	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	28.000-28.000	28.00	11.000	11.000	1.12
URANIUM, TOTAL	MG/KG	3/7	0	3/7	11.000-83.812	35.27	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	6.900-6.900	6.90	11.000	11.000	1.04
THORIUM-230	PCI/G	1/1	1	1/1	4.700-4.700	4.70	11.000	11.000	1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.100-1.100	1.10	11.000	11.000	1.47
URANIUM-235/236	PCI/G	1/1	1	1/1	0.800-0.800	0.80	11.000	11.000	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.800-0.800	0.80	11.000	11.000	1.26
THORIUM, TOTAL	MG/KG	3/7	0	2/7	7.296-18.000	14.43	18.000	18.000	11.1
RADIUM-228	PCI/G	1/1	1	0/1	1.000-1.000	1.00	11.000	11.000	1.31
THORIUM-228	PCI/G	1/1	1	0/1	1.000-1.000	1.00	11.000	11.000	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/1	1	1/1	1.900-1.900	1.90	11.000	11.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	4/4	4	2/4	5320.000-12900.000	10455.00	12.000	13.000	11900
ANTIMONY	MG/KG	1/4	4	1/4	26.300-26.300	26.30	0.280	1.200	NA
ARSENIC	MG/KG	4/4	4	1/4	6.000-8.800	7.35	12.000	13.000	8.20
BARIUM	MG/KG	4/4	4	3/4	62.000-99.600	89.28	12.000	13.000	95.7
BERYLLIUM	MG/KG	3/4	4	3/4	0.890-1.400	1.20	0.460	0.460	0.6
CADMIUM	MG/KG	3/4	4	3/4	1.100-3.100	1.80	1.200	1.200	0.870
CALCIUM	MG/KG	4/4	4	4/4	13500.000-81500.000	34300.00	12.000	13.000	4340
CHROMIUM	MG/KG	4/4	4	4/4	16.300-22.900	18.90	12.000	13.000	15.5
COBALT	MG/KG	4/4	4	0/4	5.100-11.900	9.73	12.000	13.000	14.2
COPPER	MG/KG	4/4	4	4/4	19.900-31.800	24.58	12.000	13.000	14.1
CYANIDE	MG/KG	2/4	4	0/4	0.150-0.190	0.17	0.120	0.120	0.270
IRON	MG/KG	4/4	4	4/4	22400.000-26200.000	23675.00	12.000	13.000	21700
LEAD	MG/KG	4/4	4	1/4	14.800-240.000	72.68	12.000	13.000	26.4
MAGNESIUM	MG/KG	4/4	4	4/4	5210.000-16200.000	9655.00	12.000	13.000	2780
MANGANESE	MG/KG	4/4	4	0/4	460.000-584.000	546.00	12.000	13.000	1350
MERCURY	MG/KG	0/4	4	0/4			0.080	0.120	0.3
MOLYBDENUM	MG/KG	2/4	4	2/4	5.200-9.700	7.45	1.300	2.000	NA
NICKEL	MG/KG	4/4	4	2/4	16.300-27.300	21.28	12.000	13.000	20.9
POTASSIUM	MG/KG	4/4	4	2/4	891.000-1470.000	1161.25	12.000	13.000	1230
SELENIUM	MG/KG	0/4	4	0/4			0.240	0.470	0.72
SILICON	MG/KG	3/3	3	0/3	485.000-1170.000	885.00	12.000	13.000	1800
SILVER	MG/KG	2/4	4	2/4	4.600-7.100	5.85	0.460	0.490	NA

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	4/4	4	3/4	42.700-184.000	103.93	12.000	13.000	51.1
THALLIUM	MG/KG	0/4	4	0/4			0.240	0.470	0.58
VANADIUM	MG/KG	4/4	4	0/4	25.100-29.300	27.58	12.000	13.000	30.4
ZINC	MG/KG	4/4	4	2/4	55.900-94.400	67.05	12.000	13.000	59.6

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	3/3	3	3/3	12700.000-18000.000	15000.00	12.000	12.000	11900
ANTIMONY	MG/KG	0/3	3	0/3			0.330	0.690	NA
ARSENIC	MG/KG	3/3	3	2/3	7.900-8.800	8.40	12.000	12.000	8.20
BARIUM	MG/KG	3/3	3	3/3	104.000-123.000	113.67	12.000	12.000	95.7
BERYLLIUM	MG/KG	3/3	3	3/3	1.400-1.800	1.60	12.000	12.000	0.6
CADMIUM	MG/KG	3/3	3	3/3	1.300-1.500	1.37	12.000	12.000	0.870
CALCIUM	MG/KG	3/3	3	3/3	28200.000-36700.000	31666.67	12.000	12.000	4340
CHROMIUM	MG/KG	3/3	3	3/3	18.000-20.900	19.27	12.000	12.000	15.5
COBALT	MG/KG	3/3	3	0/3	9.900-14.200	11.97	12.000	12.000	14.2
COPPER	MG/KG	3/3	3	3/3	20.400-23.900	21.87	12.000	12.000	14.1
CYANIDE	MG/KG	0/2	2	0/2			0.120	0.120	0.270
IRON	MG/KG	3/3	3	3/3	24300.000-25300.000	24833.33	12.000	12.000	21700
LEAD	MG/KG	3/3	3	0/3	12.300-18.000	14.47	12.000	12.000	26.4
MAGNESIUM	MG/KG	3/3	3	3/3	11200.000-12500.000	11633.33	12.000	12.000	2780
MANGANESE	MG/KG	3/3	3	0/3	572.000-974.000	718.67	12.000	12.000	1350
MERCURY	MG/KG	0/3	3	0/3			0.110	0.120	0.3
MOLYBDENUM	MG/KG	0/3	3	0/3			1.300	1.900	NA
NICKEL	MG/KG	3/3	3	3/3	22.200-28.300	26.00	12.000	12.000	20.9
POTASSIUM	MG/KG	3/3	3	2/3	1090.000-1870.000	1410.00	12.000	12.000	1230
SELENIUM	MG/KG	0/3	3	0/3			0.230	0.240	0.72
SILICON	MG/KG	3/3	3	0/3	811.000-974.000	911.67	12.000	12.000	1800
SILVER	MG/KG	0/3	3	0/3			0.470	0.490	NA

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
SODIUM	MG/KG	3/3	3	3/3	94.500-129.000	117.17	12.000	12.000	51.1
THALLIUM	MG/KG	0/3	3	0/3			0.230	0.240	0.58
VANADIUM	MG/KG	3/3	3	1/3	28.800-37.500	31.90	12.000	12.000	30.4
ZINC	MG/KG	3/3	3	1/3	57.500-60.400	59.00	12.000	12.000	59.6

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	2/2	2	1/2	11200.000-18600.000	14900.00	6.000	18.000	16100
ANTIMONY	MG/KG	1/2	2	1/2	21.800-21.800	21.80	1.700	1.700	NA
ARSENIC	MG/KG	2/2	2	0/2	8.500-9.000	8.75	6.000	18.000	9.57
BARIUM	MG/KG	2/2	2	1/2	96.600-121.000	108.80	6.000	18.000	119
BERYLLIUM	MG/KG	2/2	2	1/2	0.610-1.000	0.81	6.000	18.000	0.620
CADMIUM	MG/KG	0/2	2	0/2			0.750	1.700	0.910
CALCIUM	MG/KG	2/2	2	0/2	70700.000-89800.000	80250.00	6.000	18.000	150000
CHROMIUM	MG/KG	2/2	2	0/2	11.000-17.800	14.40	6.000	18.000	20.7
COBALT	MG/KG	2/2	2	0/2	10.100-12.300	11.20	6.000	18.000	15.7
COPPER	MG/KG	1/2	2	1/2	25.100-25.100	25.10	21.400	21.400	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.180	0.180	.17
IRON	MG/KG	2/2	2	0/2	22900.000-30100.000	26500.00	6.000	18.000	30700
LEAD	MG/KG	2/2	2	0/2	10.400-14.300	12.35	6.000	18.000	15.6
MAGNESIUM	MG/KG	2/2	2	0/2	23600.000-32700.000	28150.00	6.000	18.000	42600
MANGANESE	MG/KG	2/2	2	0/2	570.000-648.000	609.00	6.000	18.000	1300
MERCURY	MG/KG	0/2	2	0/2			0.060	0.150	0.29
MOLYBDENUM	MG/KG	2/2	2	1/2	1.600-8.900	5.25	6.000	18.000	2.7
NICKEL	MG/KG	2/2	2	0/2	21.100-27.500	24.30	6.000	18.000	34.3
POTASSIUM	MG/KG	2/2	2	1/2	1830.000-2150.000	1990.00	6.000	18.000	1980
SELENIUM	MG/KG	0/2	2	0/2			0.240	0.690	NA
SILICON	MG/KG	2/2	2	0/2	632.000-1310.000	971.00	6.000	18.000	1590
SILVER	MG/KG	1/2	2	1/2	7.800-7.800	7.80	0.850	0.850	NA

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	2/2	2	0/2	152.000-180.000	166.00	6.000	18.000	285
THALLIUM	MG/KG	0/2	2	0/2			0.240	0.690	0.49
VANADIUM	MG/KG	2/2	2	1/2	23.500-42.100	32.80	6.000	18.000	37.8
ZINC	MG/KG	2/2	2	0/2	55.700-80.200	67.95	6.000	18.000	82.0

000259

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	10100.000-10100.000	10100.00	6.000	6.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			7.200	7.200	NA
ARSENIC	MG/KG	1/1	1	0/1	2.700-2.700	2.70	6.000	6.000	9.57
BARIUM	MG/KG	1/1	1	0/1	68.300-68.300	68.30	6.000	6.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	1.200-1.200	1.20	6.000	6.000	0.620
CADMIUM	MG/KG	1/1	1	1/1	4.300-4.300	4.30	6.000	6.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	103000.000-103000.000	103000.00	6.000	6.000	150000
CHROMIUM	MG/KG	1/1	1	1/1	26.600-26.600	26.60	6.000	6.000	20.7
COBALT	MG/KG	1/1	1	0/1	14.600-14.600	14.60	6.000	6.000	15.7
COPPER	MG/KG	1/1	1	0/1	19.000-19.000	19.00	6.000	6.000	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.300	0.300	.17
IRON	MG/KG	1/1	1	0/1	20400.000-20400.000	20400.00	6.000	6.000	30700
LEAD	MG/KG	1/1	1	0/1	8.600-8.600	8.60	6.000	6.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	23000.000-23000.000	23000.00	6.000	6.000	42600
MANGANESE	MG/KG	1/1	1	0/1	361.000-361.000	361.00	6.000	6.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.29
NICKEL	MG/KG	1/1	1	1/1	37.600-37.600	37.60	6.000	6.000	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1360.000-1360.000	1360.00	6.000	6.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.470	0.470	NA
SILVER	MG/KG	1/1	1	1/1	2.700-2.700	2.70	6.000	6.000	NA
SODIUM	MG/KG	1/1	1	0/1	146.000-146.000	146.00	6.000	6.000	285
THALLIUM	MG/KG	0/1	1	0/1			0.240	0.240	0.49

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
VANADIUM	MG/KG	1/1	1	0/1	25.000-25.000	25.00	6.000	6.000	37.8
ZINC	MG/KG	1/1	1	0/1	60.400-60.400	60.40	6.000	6.000	82.0

002439

05/24/94

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			12.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			12.000	13.000	
2-BUTANONE	UG/KG	0/3	3	0/3			12.000	13.000	
2-HEXANONE	UG/KG	0/3	3	0/3			12.000	13.000	
4-METHYL-2-PENTANONE	UG/KG	0/3	3	0/3			12.000	13.000	
ACETONE	UG/KG	0/3	3	0/3			12.000	13.000	
BENZENE	UG/KG	0/3	3	0/3			12.000	13.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
BROMOFORM	UG/KG	0/3	3	0/3			12.000	13.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			12.000	13.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROFORM	UG/KG	0/3	3	0/3			12.000	13.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	

05/24/94

001238

5699

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	13.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	13.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			12.000	13.000	
METHYLENE CHLORIDE	UG/KG	0/3	3	0/3			12.000	16.000	
STYRENE	UG/KG	0/3	3	0/3			12.000	13.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
TOLUENE	UG/KG	0/3	3	0/3			12.000	13.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	13.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	13.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			12.000	13.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			12.000	13.000	

001239

05/24/94

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			12.000	12.000	
2-BUTANONE	UG/KG	0/3	3	0/3			12.000	12.000	
2-HEXANONE	UG/KG	0/3	3	0/3			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/3	3	0/3			12.000	12.000	
ACETONE	UG/KG	1/3	3	1/3	12.000-12.000	12.00	12.000	12.000	
BENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			12.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			12.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	

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001240

5699

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			12.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			12.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
TOLUENE	UG/KG	1/3	3	1/3	2.000-2.000	2.00	12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			12.000	12.000	

001241

05/24/94

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			6.000	6.000	
2-BUTANONE	UG/KG	0/2	2	0/2			11.000	12.000	
2-HEXANONE	UG/KG	0/2	2	0/2			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			11.000	12.000	
ACETONE	UG/KG	0/2	2	0/2			12.000	47.000	
BENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOFORM	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	

05/24/94

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			19.000	22.000	
STYRENE	UG/KG	0/2	2	0/2			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
TOLUENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			6.000	6.000	

05/24/94

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			11.000	11.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			18.000	18.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

001245

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
1,1-DICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			6.000	18.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			6.000	18.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			6.000	18.000	
2-BUTANONE	UG/KG	0/4	4	0/4			6.000	18.000	
2-HEXANONE	UG/KG	0/4	4	0/4			12.000	18.000	
4-METHYL-2-PENTANONE	UG/KG	0/4	4	0/4			12.000	18.000	
ACETONE	UG/KG	0/4	4	0/4			12.000	18.000	
BENZENE	UG/KG	0/4	4	0/4			12.000	18.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
BROMOFORM	UG/KG	0/4	4	0/4			6.000	18.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			12.000	18.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			6.000	18.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			6.000	18.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
CHLOROFORM	UG/KG	0/4	4	0/4			12.000	18.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	18.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	18.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	18.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			6.000	18.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			10.000	18.000	
STYRENE	UG/KG	0/4	4	0/4			6.000	18.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			6.000	18.000	
TOLUENE	UG/KG	1/4	4	1/4	2.000-2.000	2.00	6.000	18.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	18.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			6.000	18.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			12.000	18.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			12.000	18.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			6.000	18.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			6.000	6.000	
2-HEXANONE	UG/KG	0/1	1	0/1			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			16.000	16.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	1/1	1	1/1	27.000-27.000	27.00	6.000	6.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	1/1	1	1/1	3.000-3.000	3.00	6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	1/1	1	1/1	18.000-18.000	18.00	6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	430.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	430.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	430.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	430.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			970.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	430.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	430.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			400.000	430.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			970.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			400.000	430.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			400.000	430.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			400.000	430.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	430.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			400.000	430.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	430.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			970.000	1000.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			400.000	430.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			400.000	430.000	
3-NITROANILINE	NONE	0/3	3	0/3			970.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			970.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			400.000	430.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	430.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			400.000	430.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	430.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			970.000	1000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			970.000	1000.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			400.000	430.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			400.000	430.000	
ANTHRACENE	UG/KG	1/3	3	1/3	56.000-56.000	56.00	400.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	1/3	3	1/3	610.000-610.000	610.00	400.000	410.000	
BENZO(A)PYRENE	UG/KG	1/3	3	1/3	350.000-350.000	350.00	400.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	1/3	3	1/3	500.000-500.000	500.00	400.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	1/3	3	1/3	170.000-170.000	170.00	400.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	1/3	3	1/3	450.000-450.000	450.00	400.000	410.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			1900.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			400.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			400.000	430.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			400.000	430.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			400.000	430.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/3	3	2/3	240.000-10000.000	5120.00	430.000	430.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	430.000	
CARBAZOLE	UG/KG	0/3	3	0/3			400.000	430.000	
CHRYSENE	UG/KG	1/3	3	1/3	660.000-660.000	660.00	400.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	430.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	430.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	1/3	3	1/3	110.000-110.000	110.00	400.000	410.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			400.000	430.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	430.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	430.000	
FLUORANTHENE	UG/KG	1/3	3	1/3	1300.000-1300.000	1300.00	400.000	410.000	
FLUORENE	UG/KG	0/3	3	0/3			400.000	430.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	430.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			400.000	430.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			400.000	430.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			400.000	430.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/3	3	1/3	210.000-210.000	210.00	400.000	410.000	
ISOPHORONE	UG/KG	0/3	3	0/3			400.000	430.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			400.000	430.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			400.000	430.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			400.000	430.000	
NITROBENZENE	UG/KG	0/3	3	0/3			400.000	430.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			400.000	430.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			970.000	1000.000	
PHENANTHRENE	UG/KG	1/3	3	1/3	250.000-250.000	250.00	400.000	410.000	
PHENOL	UG/KG	0/3	3	0/3			400.000	430.000	
PYRENE	UG/KG	1/3	3	1/3	1000.000-1000.000	1000.00	400.000	410.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			970.000	970.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			970.000	970.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			400.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			400.000	400.000	
2-BENZYL-4-CHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			400.000	400.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			400.000	400.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			970.000	970.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			400.000	400.000	
3-NITROANILINE	NONE	0/3	3	0/3			970.000	970.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			970.000	970.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			400.000	400.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			400.000	400.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			970.000	970.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			970.000	970.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			400.000	400.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			400.000	400.000	
ANTHRACENE	UG/KG	0/3	3	0/3			400.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/3	3	0/3			400.000	400.000	
BENZO(A)PYRENE	UG/KG	0/3	3	0/3			400.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/3	3	0/3			400.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			400.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/3	3	0/3			400.000	400.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			400.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			400.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			400.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			400.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/3	3	2/3	140.000-580.000	360.00	400.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	400.000	
CARBAZOLE	UG/KG	0/3	3	0/3			400.000	400.000	
CHRYSENE	UG/KG	0/3	3	0/3			400.000	400.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	400.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			400.000	400.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			400.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			400.000	400.000	
FLUORANTHENE	UG/KG	0/3	3	0/3			400.000	400.000	
FLUORENE	UG/KG	0/3	3	0/3			400.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			400.000	400.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			400.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			400.000	400.000	
ISOPHORONE	UG/KG	0/3	3	0/3			400.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			400.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			400.000	400.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			400.000	400.000	
NITROBENZENE	UG/KG	0/3	3	0/3			400.000	400.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			400.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			400.000	400.000	
PHENANTHRENE	UG/KG	0/3	3	0/3			970.000	970.000	
PHENOL	UG/KG	0/3	3	0/3			400.000	400.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
PYRENE	UG/KG	0/3	3	0/3			400.000	400.000	

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F 5690

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			780.000	780.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
CHRYSENE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	

05/24/94

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DIBENZOFURAN	UG/KG	0/1	1	0/1			390.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			390.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
ISOPHORONE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
NITROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			390.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			960.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			960.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			400.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			400.000	420.000	
2-BENZYL-4-CHLOROPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			400.000	420.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			400.000	420.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			960.000	1000.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			400.000	420.000	
3-NITROANILINE	NONE	0/2	2	0/2			960.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			960.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			400.000	420.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			400.000	420.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			960.000	1000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			960.000	1000.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			400.000	420.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			400.000	420.000	
ANTHRACENE	UG/KG	0/2	2	0/2			400.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			400.000	420.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			400.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			400.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			400.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			400.000	420.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			1900.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			400.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			400.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			400.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			400.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/2	2	2/2	3.000-55.000	29.00	6.000	18.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	420.000	
CARBAZOLE	UG/KG	0/2	2	0/2			400.000	420.000	
CHRYSENE	UG/KG	0/2	2	0/2			400.000	420.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	420.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			400.000	420.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			400.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			400.000	420.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			400.000	420.000	
FLUORENE	UG/KG	0/2	2	0/2			400.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			400.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			400.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			400.000	420.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			400.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			400.000	420.000	
ISOPHORONE	UG/KG	0/2	2	0/2			400.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			400.000	420.000	
N-NITROSODIMETHYLAMINE	UG/KG	1/2	2	1/2	5.000-5.000	5.00	420.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			400.000	420.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			400.000	420.000	
NITROBENZENE	UG/KG	0/2	2	0/2			400.000	420.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			400.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			960.000	1000.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			400.000	420.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
PHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
PYRENE	UG/KG	0/2	2	0/2			400.000	420.000	
TRIBUTYL PHOSPHATE	UG/KG	0/2	2	0/2			400.000	420.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			400.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			800.000	800.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			400.000	400.000	
ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			400.000	400.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
CHRYSENE	UG/KG	0/1	1	0/1			400.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			400.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
FLUORENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			400.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	
ISOPHORONE	UG/KG	0/1	1	0/1			400.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			400.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			400.000	400.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
NITROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			400.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	

05/24/94

AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/4	4	0/4			4.000	19.000	
4,4'-DDE	UG/KG	0/4	4	0/4			4.000	19.000	
4,4'-DDT	UG/KG	0/4	4	0/4			4.000	19.000	
ALDRIN	UG/KG	0/4	4	0/4			2.100	9.600	
ALPHA-BHC	UG/KG	0/4	4	0/4			2.100	9.600	
ALPHA-CHLORDANE	UG/KG	0/4	4	0/4			2.100	96.000	
AROCLOR-1016	UG/KG	0/4	4	0/4			40.000	96.000	
AROCLOR-1221	UG/KG	0/4	4	0/4			81.000	96.000	
AROCLOR-1232	UG/KG	0/4	4	0/4			40.000	96.000	
AROCLOR-1242	UG/KG	0/4	4	0/4			40.000	96.000	
AROCLOR-1248	UG/KG	0/4	4	0/4			40.000	96.000	
AROCLOR-1254	UG/KG	1/4	4	1/4	14.000-14.000	14.00	40.000	42.000	
AROCLOR-1260	UG/KG	0/4	4	0/4			40.000	190.000	
BETA-BHC	UG/KG	0/4	4	0/4			2.100	9.600	
DELTA-BHC	UG/KG	0/4	4	0/4			2.100	9.600	
DIELDRIN	UG/KG	0/4	4	0/4			4.000	19.000	
ENDOSULFAN II	UG/KG	0/4	4	0/4			4.000	19.000	
ENDOSULFAN SULFATE	UG/KG	0/4	4	0/4			4.000	19.000	
ENDOSULFAN-I	UG/KG	0/4	4	0/4			2.100	9.600	
ENDRIN	UG/KG	0/4	4	0/4			4.000	19.000	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			4.000	4.200	
ENDRIN KETONE	UG/KG	0/4	4	0/4			4.000	19.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/4	4	0/4			2.100	9.600	
GAMMA-CHLORDANE	UG/KG	0/4	4	0/4			2.100	96.000	
HEPTACHLOR	UG/KG	0/4	4	0/4			2.100	9.600	
HEPTACHLOR EPOXIDE	UG/KG	0/4	4	0/4			2.100	9.600	
METHOXYCHLOR	UG/KG	0/4	4	0/4			21.000	96.000	
TOXAPHENE	UG/KG	0/4	4	0/4			190.000	220.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			4.000	4.100	
4,4'-DDE	UG/KG	0/3	3	0/3			4.000	4.100	
4,4'-DDT	UG/KG	0/3	3	0/3			4.000	4.100	
ALDRIN	UG/KG	0/3	3	0/3			2.100	2.100	
ALPHA-BHC	UG/KG	0/3	3	0/3			2.100	2.100	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			2.100	2.100	
AROCLOR-1016	UG/KG	0/3	3	0/3			40.000	41.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			81.000	82.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			40.000	41.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			40.000	41.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			40.000	41.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			40.000	41.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			40.000	41.000	
BETA-BHC	UG/KG	0/3	3	0/3			2.100	2.100	
DELTA-BHC	UG/KG	0/3	3	0/3			2.100	2.100	
DIELDRIN	UG/KG	0/3	3	0/3			4.000	4.100	
ENDOSULFAN II	UG/KG	0/3	3	0/3			4.000	4.100	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			4.000	4.100	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			2.100	2.100	
ENDRIN	UG/KG	0/3	3	0/3			4.000	4.100	
ENDRIN ALDEHYDE	UG/KG	0/3	3	0/3			4.000	4.100	
ENDRIN KETONE	UG/KG	0/3	3	0/3			4.000	4.100	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			2.100	2.100	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			2.100	2.100	
HEPTACHLOR	UG/KG	0/3	3	0/3			2.100	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			2.100	2.100	
METHOXYCHLOR	UG/KG	0/3	3	0/3			21.000	21.000	
TOXAPHENE	UG/KG	0/3	3	0/3			210.000	210.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			4.000	4.200	
4,4'-DDE	UG/KG	0/2	2	0/2			4.000	4.200	
4,4'-DDT	UG/KG	0/2	2	0/2			4.000	4.200	
ALDRIN	UG/KG	0/2	2	0/2			2.100	2.200	
ALPHA-BHC	UG/KG	0/2	2	0/2			2.100	2.200	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			2.100	2.200	
AROCLOR-1016	UG/KG	0/2	2	0/2			40.000	42.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			82.000	85.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			40.000	42.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			40.000	42.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			40.000	42.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			40.000	42.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			40.000	42.000	
BETA-BHC	UG/KG	0/2	2	0/2			2.100	2.200	
DELTA-BHC	UG/KG	0/2	2	0/2			2.100	2.200	
DIELDRIN	UG/KG	0/2	2	0/2			4.000	4.200	
ENDOSULFAN II	UG/KG	0/2	2	0/2			4.000	4.200	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			4.000	4.200	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			2.100	2.200	
ENDRIN	UG/KG	0/2	2	0/2			4.000	4.200	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			4.000	4.200	
ENDRIN KETONE	UG/KG	0/2	2	0/2			4.000	4.200	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			2.100	2.200	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			2.100	2.200	
HEPTACHLOR	UG/KG	0/2	2	0/2			2.100	2.200	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			2.100	2.200	
METHOXYCHLOR	UG/KG	0/2	2	0/2			21.000	22.000	
TOXAPHENE	UG/KG	0/2	2	0/2			210.000	220.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			40.000	40.000	
4,4'-DDE	UG/KG	0/1	1	0/1			40.000	40.000	
4,4'-DDT	UG/KG	0/1	1	0/1			40.000	40.000	
ALDRIN	UG/KG	0/1	1	0/1			20.000	20.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			20.000	20.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			200.000	200.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			200.000	200.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			200.000	200.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			200.000	200.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			200.000	200.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			200.000	200.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			400.000	400.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			400.000	400.000	
BETA-BHC	UG/KG	0/1	1	0/1			20.000	20.000	
DELTA-BHC	UG/KG	0/1	1	0/1			20.000	20.000	
DIELDRIN	UG/KG	0/1	1	0/1			40.000	40.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			40.000	40.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			40.000	40.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			20.000	20.000	
ENDRIN	UG/KG	0/1	1	0/1			40.000	40.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			40.000	40.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			20.000	20.000	

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AREA: K-65/Clearwell Line (West of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			200.000	200.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			20.000	20.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			200.000	200.000	
TOXAPHENE	UG/KG	0/1	1	0/1			400.000	400.000	

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D.2.22 CLEARWELL LINE (EAST OF THE PRODUCTION AREA)

This section deals with the path of the Clearwell line from the eastern boundary of the production area to Manhole 175 in the sewage treatment plant area. The depth of the line at the east production area fence (i.e., west end of the Clearwell line) is approximately 13 feet. Approximately 25 feet east of the production area fence the grade of the line increases to 3.86 percent for 175 feet and then flattens to 1.84 percent to Manhole 175. Therefore, the depth of the line from the production area fence varies from a minimum of approximately 4 feet to a maximum of 11 feet. A total of four soil sampling locations are present in this area. These samples were collected as part of the site-wide RI/FS program.

Surface Soil

Surface soil sampling locations near the path of the Clearwell line east of the production area are shown in Figure D.2-26. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was elevated above background in the area. Table D.2-22 presents the distribution of constituents with respect to background for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Total uranium and total thorium were the only radionuclides for which analyses were performed in the surface soil of this area. Four samples from the 0- to 0.5-foot interval were collected and analyzed and all showed elevated total uranium concentrations (11 to 30 mg/kg). The maximum total uranium concentration exceeded background by five times, and the maximum total thorium concentration was slightly elevated above background at this depth.

No analyses were performed for inorganic or organic compounds in the surface soil near the Clearwell line east of the production area.

Subsurface Soil

Subsurface soil sampling locations coincided with those of surface soil, as shown in Figure D.2-26. The maximum sample concentration was compared to background for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-22 presents the distribution of constituents with respect to background for each sample depth interval.

Of the radionuclide constituents analyzed for in the subsurface soil samples, only total uranium exhibited significantly elevated concentrations over depth (1.5 to 15.0 feet) with a maximum concentration of 14 mg/kg detected at the 5.0- to 5.5-foot depth in Boring 1842, located at the west end of this area.

Volatile organic analysis was performed on four samples from the 5.0- to 10.0-foot depth-interval and two samples collected from the 10.0- to 15.0-foot depth-intervals. 1,1,1-Trichloroethene, 2-butanone, and 1,1-dichloroethane were detected at 2 to 5 μg/kg in the samples collected from Borings 1842 and 1843 in the 5.0- to 10.0-foot-depth interval. Only acetone, a common laboratory contaminant, was detected at 6 μg/kg in the 10.5- to 11.5-foot-depth sample from Boring 1842.

No analyses were performed for inorganic, semivolatile organic compounds, pesticides, or PCBs in the subsurface soil in this area.

Conclusions

The only contaminants present at significant concentrations in the surface and subsurface soil along the path of the Clearwell line east of the production area are total uranium and the uranium isotopes uranium-238 and -234. However, because of the depth of the Clearwell line in this area, the surface soil contamination is not related to the Clearwell line. The uranium contamination present in surface soil in this area is probably attributable to airborne deposition from past emissions. There is no evidence of subsurface contamination in this area related to the Clearwell line, based on the limited data available. The relatively low levels of total uranium detected in subsurface soil is more likely related to other sources, such as migration from surface soil contamination.

TABLE D.2.22
CLEARWELL LINE (EAST OF PRODUCTION AREA)
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.166	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	4		■						●									
0.5 - 1	0																	
1 - 1.5	0																	
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	4		◉						●									
3 - 5	0																	
5-10	4	◉	◉	◉	○	○	●	○	○	○	●	X	-	-	-	-	-	-
10 - 15	2	○	◉	●	○	○	-	○	○	○	○	-	-	-	-	-	-	-
15 - 20	4		●						○									

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	0																										
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	160,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5-10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background concentration.

● Detection above but < 2X of 95 percentile background concentration.

◉ Detection 2X to 5X 95 percentile background concentration.

■ Detection greater than 5X 95 percentile background concentration.

X Detection where background level not recorded.

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TABLE D.2.22
(Continued)

	VOLATILES (ug/kg)								SEMIVOLATILES (ug/kg)																				PESTICIDES/PCBs (ug/kg)									
Depth Interval, Feet	Number of Samples	1,1,1-Trichloroethane	1,1-Dichloroethane	2-Butanone	Acetone				Number of Samples	2-Chlorophenol	4-Methylphenol	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-butyl phthalate	Di-N-Octyl Phthalate	Fluoranthene	Ideno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene		Number of Samples	4,4'-DDE	4,4'-DDT	Aroclor-1254	Dieldrin	Gamma-BNC(Lindane)				
Surface Soil:																																						
0 - 0.5	0								0																				0									
0.5 - 1	0								0																				0									
1 - 1.5	0								0																				0									
Subsurface Soil:																																						
1.5 - 3	0								0																				0									
3 - 5	0								0																				0									
5-10	4	X	X	X	-				0																				0									
10 - 15	2	-	-	-	X				0																				0									
15 - 20	0								0																				0									

[ ] "Blank" - Compound was not analyzed.

[X] Detection where background level not recorded.

[-] Analyzed for and not detected.

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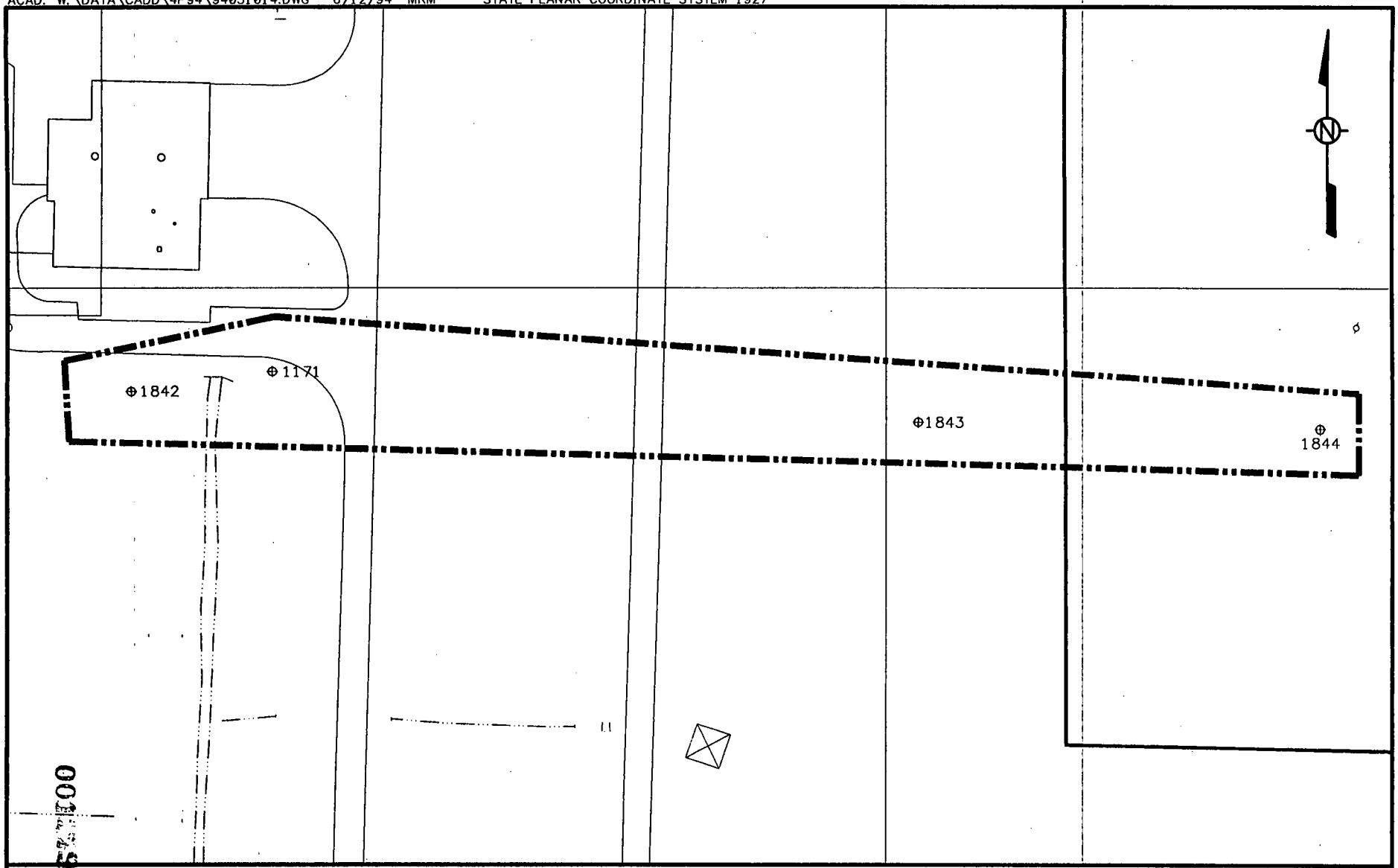

LEGEND :

1842 SOIL BORING LOCATION

BOUNDARY OF AREA OF INTEREST

SCALE

0 150 300 FEET

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FIGURE D.2-26. CLEARWELL LINE EAST OF FORMER PRODUCTION AREA

K-65 Slurry Line and Clearwell Line East of Production Area

Summary Soil Statistics

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM, TOTAL	MG/KG	4/4	0	4/4	11.000-30.000	23.75			3.73
THORIUM, TOTAL	MG/KG	1/4	0	1/4	19.000-19.000	19.00	18.000	23.000	12.4

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM, TOTAL	MG/KG	2/4	0	2/4	12.000-13.000	12.50	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	1/4	0	1/4	18.000-18.000	18.00	11.000	23.000	11.1

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	4/4	4	2/4	0.830-2.570	1.36			1.12
URANIUM, TOTAL	MG/KG	5/9	4	3/9	2.690-14.000	6.56	11.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	1/4	0.920-2.750	1.41			1.04
THORIUM-230	PCI/G	4/4	4	0/4	0.920-1.360	1.11			1.91
RADIUM-226	PCI/G	4/4	4	0/4	0.760-1.100	0.90			1.47
URANIUM-235/236	PCI/G	1/4	4	1/4	0.200-0.200	0.20	0.100	0.100	0.150
THORIUM-232	PCI/G	4/4	4	0/4	0.627-0.986	0.78			1.26
THORIUM, TOTAL	MG/KG	4/9	4	0/9	5.660-8.890	7.00	18.000	23.000	11.1
RADIUM-228	PCI/G	4/4	4	0/4	0.710-1.070	0.81			1.31
THORIUM-228	PCI/G	4/4	4	1/4	0.900-1.400	1.09			1.38
NEPTUNIUM-237	PCI/G	1/4	4	1/4	0.288-0.288	0.29	0.200	0.200	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/4	4	0/4			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	4	0/4			0.200	0.200	NA

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	2/2	2	0/2	1.010-1.110	1.06			1.12
URANIUM, TOTAL	MG/KG	2/5	3	2/5	5.460-13.510	9.49	3.050	11.000	3.69
URANIUM-234	PCI/G	2/2	2	1/2	0.890-1.070	0.98			1.04
THORIUM-230	PCI/G	1/2	2	0/2	1.430-1.430	1.43	0.100	0.100	1.91
RADIUM-226	PCI/G	2/2	2	0/2	0.770-0.960	0.87			1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.100	0.100	0.150
THORIUM-232	PCI/G	2/2	2	0/2	0.483-0.831	0.66			1.26
THORIUM, TOTAL	MG/KG	3/5	3	0/5	4.360-7.500	6.42	18.000	18.000	11.1
RADIUM-228	PCI/G	2/2	2	0/2	0.590-0.850	0.72			1.31
THORIUM-228	PCI/G	2/2	2	0/2	0.530-1.180	0.86			1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.438
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	1/4	1	1/4	4.220-4.220	4.22	11.000	11.000	3.69
THORIUM, TOTAL	MG/KG	1/4	1	0/4	3.430-3.430	3.43	18.000	18.000	11.1

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/4	4	1/4	5.000-5.000	5.00	6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/4	4	0/4			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	1/4	4	1/4	2.000-2.000	2.00	6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/4	4	0/4			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/4	4	0/4			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/4	4	0/4			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/4	4	0/4			6.000	6.000	
2-BUTANONE	UG/KG	1/4	4	1/4	2.000-2.000	2.00	11.000	12.000	
2-HEXANONE	UG/KG	0/4	4	0/4			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/4	4	0/4			11.000	12.000	
ACETONE	UG/KG	0/4	4	0/4			11.000	12.000	
BENZENE	UG/KG	0/4	4	0/4			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	6.000	
BROMOFORM	UG/KG	0/4	4	0/4			6.000	6.000	
BROMOMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/4	4	0/4			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/4	4	0/4			6.000	6.000	
CHLOROBENZENE	UG/KG	0/4	4	0/4			6.000	6.000	
CHLOROETHANE	UG/KG	0/4	4	0/4			11.000	12.000	
CHLOROFORM	UG/KG	0/4	4	0/4			6.000	6.000	
CHLOROMETHANE	UG/KG	0/4	4	0/4			11.000	12.000	

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/4	4	0/4			6.000	6.000	
ETHYLBENZENE	UG/KG	0/4	4	0/4			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/4	4	0/4			6.000	160.000	
STYRENE	UG/KG	0/4	4	0/4			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/4	4	0/4			6.000	6.000	
TOLUENE	UG/KG	0/4	4	0/4			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/4	4	0/4			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/4	4	0/4			6.000	6.000	
VINYL ACETATE	UG/KG	0/4	4	0/4			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/4	4	0/4			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/4	4	0/4			6.000	6.000	

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			6.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			6.000	11.000	
2-BUTANONE	UG/KG	0/2	2	0/2			11.000	11.000	
2-HEXANONE	UG/KG	0/2	2	0/2			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			11.000	11.000	
ACETONE	UG/KG	1/2	2	1/2	6.000-6.000	6.00	11.000	11.000	
BENZENE	UG/KG	0/2	2	0/2			6.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
BROMOFORM	UG/KG	0/2	2	0/2			6.000	11.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			6.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			6.000	11.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			6.000	11.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			11.000	11.000	
CHLOROFORM	UG/KG	0/2	2	0/2			6.000	11.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	11.000	

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AREA: K-65/Clearwell Line (East of Production Area)
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	11.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			6.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			11.000	26.000	
STYRENE	UG/KG	0/2	2	0/2			6.000	11.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			6.000	11.000	
TOLUENE	UG/KG	0/2	2	0/2			6.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	11.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	11.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			6.000	11.000	

D.2.23 OUTFALL PIPELINE

The FEMP outfall pipeline, located east of the FEMP, is used to transport treated effluent from the FEMP to the Great Miami River. The outfall pipeline area, covering a strip area of 3920 feet by 100 feet, encompasses the immediate area of the pipeline from Manholes 176 and 176B at the eastern edge of the FEMP property to the discharge point on the western bank of the Great Miami River. The outfall pipeline that is currently in use was installed in this area in 1993, at which time the old outfall line was decommissioned. The outfall pipeline area is shown in Figure D.2-27.

Soil samples in the outfall pipeline area were collected and analyzed under four distinct soil sampling programs. These sampling locations are shown in Figure D.2-27.

Two soil sampling programs were performed prior to 1988 for general purposes that covered the outfall pipeline area and other areas throughout the FEMP and adjacent areas. One sample was taken in support of an on-going litigation case for National Lead of Ohio (NLO) in March 1986 and one sample was taken as part of the site-wide RI/FS program in April 1988. These sample locations are identified in Figure D.2-27 as LIT7253 and Zone 3-75, respectively. The soil samples were collected at each sampling location from a 0- to 2-inch depth. The sample from Zone 3-75 was analyzed for the full radiological parameters, and the sample from LIT7253 was analyzed for uranium isotopes.

The third sampling program, which investigated the surface soil surrounding the manholes along the outfall pipeline, was conducted in response to an overflow at Manhole 180 in April 1989. In addition to 53 sampling locations in the area around Manhole 180, sampling locations around other manholes were used to characterize the areas and to delineate the contamination. At each sampling location, soil samples were collected from the depth intervals of 0 to 0.5 feet, 0.5 to 1.0 feet, and 1.0 to 1.5 feet. These samples were analyzed on site for total uranium and thorium and, for a few samples, the full radiological parameters. Split samples were sent to an off-site laboratory for analysis of the full radiological parameters as a quality control measure.

The fourth sampling program was performed in compliance with Order 14 of the Director's Findings and Orders, which required an examination of the outfall pipeline to determine whether the line was a source of contamination to the Great Miami aquifer. Testing programs included an examination of the gravel pack surrounding the pipeline to determine whether excessive amounts of contaminants

were present, and an integrity testing by pressurizing the pipeline to determine whether it was leaking. The gravel pack sampling program consisted of ten borings, which were completed in February 1990. The pipeline integrity testing was performed on June 16, 1990. Pressure tests were run on sections of the line between two consecutive manholes. The section from Manhole 181 to the Great Miami River could not be checked, and no further testing is planned. It was determined that the section between Manhole 179 and Manhole 180 might be leaking. Consequently, a monitoring well (2119) was installed immediately downgradient of the potentially leaking section. All data from the boring program and the outfall-line pressure testing are included in a report by WEMCO entitled "FMPC Outfall Pipeline Investigation." (September 18, 1990).

An off-property soil removal action was performed in the area of Manhole 180 in June 1989. The cleanup criteria employed during the removal were 35 pCi/g (52 mg/kg dry weight) and 10 pCi/g (46 mg/kg dry weight) for total uranium and total thorium, respectively. Approximately 125 cubic feet of soil were removed from an approximately 64-square-foot (8-foot by 8-foot) area located east of Manhole 180, as shown in Figure D.2-27. The soil was removed to a depth of approximately 2 feet over most of the area. The excavation boundaries were set up to center, as closely as possible, the sample point with the high readings observed during the investigation. Upon completion of the excavation, four certification samples were collected. The results indicated that, based on the criteria used, the cleanup effort was successful.

Surface Soil

Table D.2-23 presents the distribution of radiological and chemical constituents in the surface soils of the outfall pipeline area. The maximum detection of each constituent was compared to the 95th percentile background value (background), if available, to determine whether the constituent was elevated above background. When the background concentration was not available, any detection of these constituents was reported. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Radiochemical results for the outfall pipeline area indicated that the radiological contaminants in the surface soil primarily include the isotopes of uranium and thorium. The uranium isotopes, uranium-238 and -234, were present at levels greater than five times background in the surface-soil depth intervals of 0 to 0.5 feet and 0.5 to 1.0 feet, whereas total uranium was present at levels greater than five times background throughout the surface-soil depth intervals. Results of total uranium

indicated that elevated levels of total uranium exist wherever surface soil samples were collected at the manhole locations. The lone surface soil sample that was collected from the borings along the outfall pipeline (Boring 1525 at 0.5- to 1.0-foot depth) also showed elevated concentration of total uranium. Uranium-238 and -234 were also present at levels between two times and five times background in the depth interval of 1.0 to 1.5 feet. Uranium-235/236 and total thorium were both detected at levels between two times and five times background in the surface soil depth intervals of 0 to 0.5 feet and 0.5 to 1.0 feet. In addition, thorium isotopes, including thorium-230, -232, and -228, were present in all surface-soil depth intervals (except for thorium-232 in the 1.0- to 1.5-foot depth interval) at levels above, but less than two times background. The levels of 11 mg/kg and 23 mg/kg for total uranium and total thorium, respectively, which were frequently recorded during the 1989 investigation for the surface soil surrounding the manholes along the outfall pipeline, were also the lower limits of detectability by the x-ray fluorescence method used in the analyses.

Radium isotopes (radium-226 and radium-228) were detected at below background levels in the 0- to 0.5-foot depth interval. Activities of technetium-99 were present throughout the surface-soil depth intervals (1.1 to 1.5 pCi/g). Cesium-137 was detected below background. Other radionuclides (i.e., neptunium-237, strontium-90, ruthenium-106, and plutonium isotopes) were analyzed for but not detected in samples collected from the surface-soil depth intervals.

Samples collected from the outfall pipeline area were not analyzed for inorganic constituents or organic compounds.

Subsurface Soil

Total uranium, total thorium, and cesium-137 were present in the subsurface soil sampled in the outfall pipeline area. Total D.2-23 presents the distribution of radiological and chemical constituents in the subsurface soil. Concentrations of total uranium were reported in excess of two times background in depth intervals of 3.0 to 5.0 feet and 5.0 to 10.0 feet, and greater than five times background in the depth interval of 10.0 to 15.0 feet. Results of total uranium indicated that elevated levels of total uranium exist at all boring locations where subsurface soil samples were collected. The highest level of total uranium (31.2 mg/kg), was detected in the sample collected from 11.5- to 12-foot interval at Boring 1532. At the 10.0- to 15.0-foot depth interval, total thorium was detected at concentrations above but less than two times background. In addition, cesium-137 was detected in the depth intervals of 5.0 to 10.0 feet (2.57 pCi/g) and 10.0 to 15.0 feet (1 pCi/g).

As with surface soil, subsurface soil samples collected from the outfall pipeline area were not analyzed for inorganic constituents or organic compounds.

Conclusion

The results of the radiochemical analysis for the outfall pipeline area indicated that isotopes of uranium and thorium were detected at levels above background, primarily in the surface soil along the outfall pipeline. The radiological constituents included total uranium, uranium-238, uranium-234, and uranium-235/236 and total thorium, thorium-230, thorium-232, thorium-228, and technetium-99.

There are three potential scenarios of radiological contamination in the outfall pipeline area: (1) airborne deposition from plant emissions; (2) releases from the old outfall pipeline; and (3) the use of phosphate fertilizers, which are known to contain uranium and thorium. The use of such fertilizers, however, would not explain the presence of technetium-99 or cesium-137.) Pressure checks occurred on segments of the old outfall pipeline between manholes in sequence from Manhole 175 to Manhole 181. The pipeline was determined to be airtight in all sections, with the exception of the pipeline section between Manhole 179 to Manhole 180. Detection of elevated total uranium in the subsurface soil at Boring 1532 appear to indicate leak has occurred at that segment of the old line. Samples from other boring locations also showed elevated total uranium concentrations, but at relatively lower levels.

TABLE D.2-23
OUTFALL PIPELINE
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	14	■	■	■	●	○	⊙	●	⊙	○	●	-	-	-	-	X	-	○
0.5 - 1	38	■	■	■	●		⊙	●	⊙		●					X	-	-
1 - 1.5	16	⊙	■	⊙	●		●	○	●		●					X		
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	1								-							-		
3 - 5	3		⊙						○							-	-	-
5 - 10	14		⊙			○			○							-	-	X
10 - 15	15		■			○			●	○						-	-	X
15 - 20																		

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

⊙ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

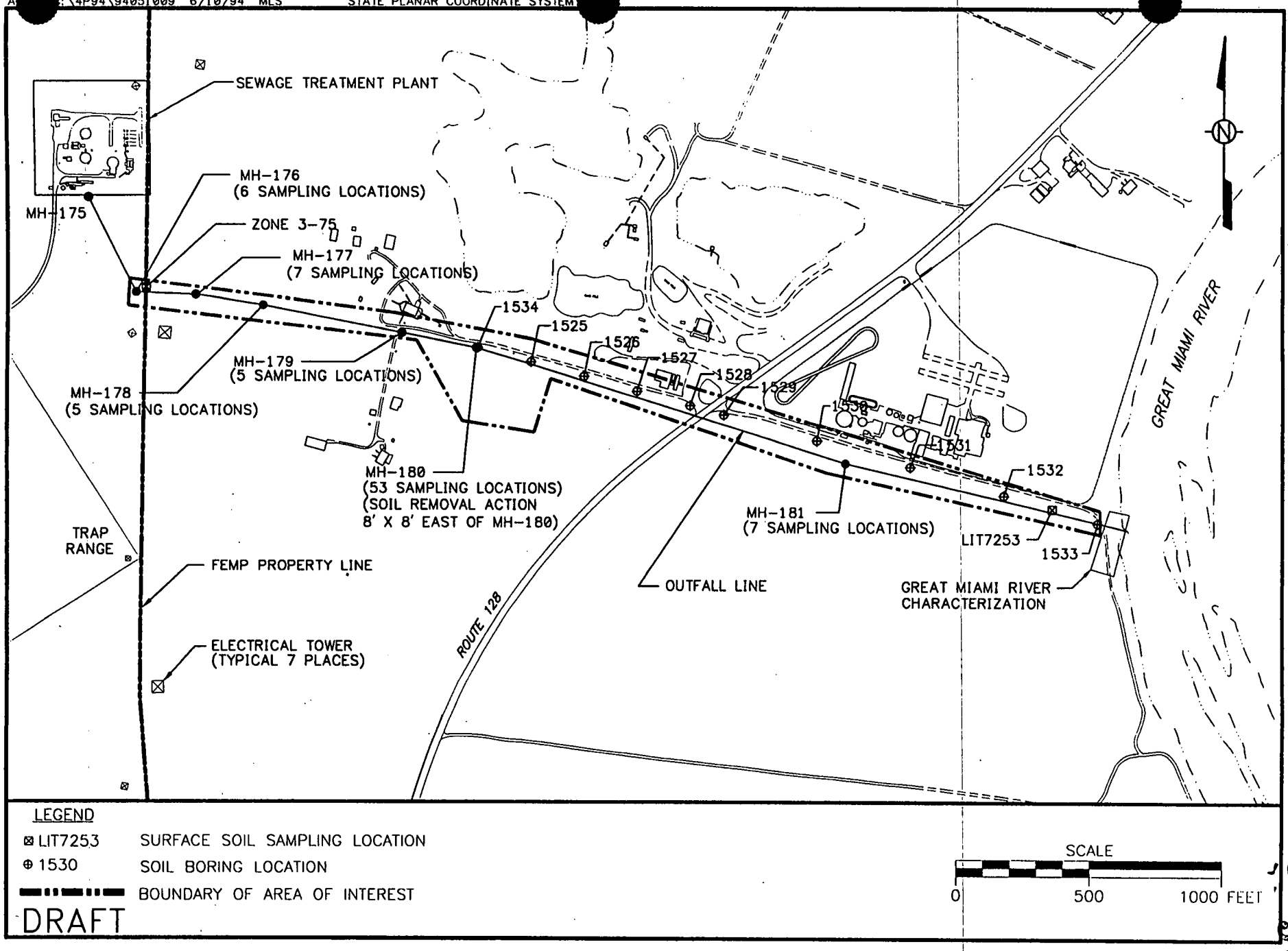

FIGURE D.2-27. OUTFALL PIPELINE

Outfall Pipeline

Summary Soil Statistics

AREA: Outfall Pipeline
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	14/20	0	12/20	1.000-9.600	4.05	3.600	3.700	1.24
URANIUM, TOTAL	MG/KG	30/92	0	28/92	3.300-28.887	13.21	11.000	11.000	3.73
URANIUM-234	PCI/G	14/20	0	12/20	1.000-8.400	3.47	2.040	4.770	1.24
THORIUM-230	PCI/G	12/15	0	6/15	1.300-2.900	2.03	0.100	0.800	1.97
RADIUM-226	PCI/G	2/2	2	0/2	0.900-0.900	0.90	3.600	3.700	1.42
URANIUM-235/236	PCI/G	10/20	0	8/20	0.101-0.370	0.20	0.600	0.600	0.156
THORIUM-232	PCI/G	13/15	0	1/15	0.600-1.500	0.98	0.100	0.850	1.36
THORIUM, TOTAL	MG/KG	17/91	0	7/91	5.800-25.000	14.66	23.000	23.000	12.4
RADIUM-228	PCI/G	1/2	2	0/2	0.800-0.800	0.80	0.700	0.700	1.25
THORIUM-228	PCI/G	12/15	0	2/15	0.550-1.900	1.15	0.100	0.910	1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	2/14	0	2/14	1.500-1.500	1.50	1.000	17.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	1/2	2	0/2	0.300-0.300	0.30	0.200	0.200	0.711
URANIUM-236	PCI/G	3/9	0	1/9	0.050-0.230	0.11	0.028	0.770	0.088

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AREA: Outfall Pipeline
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	11/12	0	10/12	0.700-7.600	3.37	3.700	3.700	1.24
URANIUM, TOTAL	MG/KG	20/89	0	19/89	3.600-54.000	16.14	11.000	11.000	3.73
URANIUM-234	PCI/G	11/12	0	10/12	0.900-8.300	3.24	4.100	4.100	1.24
THORIUM-230	PCI/G	7/9	0	5/9	1.300-2.600	2.06	0.100	0.100	1.97
URANIUM-235/236	PCI/G	5/12	0	5/12	0.170-0.360	0.24	0.600	0.600	0.156
THORIUM-232	PCI/G	7/9	0	1/9	0.340-1.400	0.86	0.100	0.600	1.36
THORIUM, TOTAL	MG/KG	13/89	0	6/89	3.200-27.000	14.09	23.000	23.000	12.4
THORIUM-228	PCI/G	7/9	0	1/9	0.200-1.700	1.06	0.100	0.600	1.43
TECHNETIUM-99	PCI/G	1/9	0	1/9	1.600-1.600	1.60	1.000	22.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	0.711
URANIUM-236	PCI/G	4/5	0	1/5	0.040-0.100	0.06	1.500	1.500	0.088

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AREA: Outfall Pipeline
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	9/11	0	8/11	0.600-6.000	2.46	3.600	3.700	1.24
URANIUM, TOTAL	MG/KG	14/88	0	13/88	3.000-28.000	11.89	11.000	11.000	3.73
URANIUM-234	PCI/G	9/11	0	8/11	0.800-5.600	2.41	4.200	4.900	1.24
THORIUM-230	PCI/G	8/10	0	4/10	1.400-2.300	1.92	0.100	0.100	1.97
URANIUM-235/236	PCI/G	3/11	0	3/11	0.170-0.260	0.20	0.600	0.600	0.156
THORIUM-232	PCI/G	5/10	0	0/10	0.800-1.100	0.94	0.100	0.600	1.36
THORIUM, TOTAL	MG/KG	11/88	0	3/88	2.100-24.000	11.31	23.000	23.000	12.4
THORIUM-228	PCI/G	8/10	0	1/10	0.900-1.600	1.13	0.100	0.100	1.43
TECHNETIUM-99	PCI/G	1/9	0	1/9	1.100-1.100	1.10	1.000	21.000	NA
URANIUM-236	PCI/G	1/3	0	1/3	0.140-0.140	0.14	0.040	0.060	0.088

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AREA: Outfall Pipeline
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
THORIUM, TOTAL	MG/KG	0/1	1	0/1			3.000	3.000	11.1
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA

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AREA: Outfall Pipeline
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	3/3	3	3/3	9.700-12.250	10.62	1.000	1.000	3.69
THORIUM, TOTAL	MG/KG	4/4	4	0/4	4.000-7.000	5.50	1.000	1.000	11.1
TECHNETIUM-99	PCI/G	0/4	4	0/4			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	3	0/3			1.000	1.000	NA
CESIUM-137	PCI/G	0/3	3	0/3			0.200	0.200	NA

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AREA: Outfall Pipeline
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 5 - 10 FEET									
URANIUM, TOTAL	MG/KG	10/10	10	10/10	6.920-15.600	10.06	4.000	4.000	3.69
RADIUM-226	PCI/G	1/1	0	0/1	0.660-0.660	0.66	4.000	4.000	1.47
THORIUM, TOTAL	MG/KG	18/21	21	0/21	2.000-11.000	5.72	4.000	4.000	11.1
TECHNETIUM-99	PCI/G	0/21	21	0/21			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/10	10	0/10			1.000	1.100	NA
CESIUM-137	PCI/G	1/10	10	1/10	2.570-2.570	2.57	0.200	0.200	NA

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AREA: Outfall Pipeline
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	11/11	11	11/11	5.920-31.210	10.87	3.000	4.000	3.69
RADIUM-226	PCI/G	6/6	0	0/6	0.300-0.780	0.63	3.000	4.000	1.47
THORIUM, TOTAL	MG/KG	13/21	21	1/21	3.000-12.000	5.08	3.000	4.000	11.1
RADIUM-228	PCI/G	4/5	0	0/5	0.670-0.990	0.80	0.500	0.500	1.31
TECHNETIUM-99	PCI/G	0/21	21	0/21			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/11	11	0/11			1.000	1.000	NA
CESIUM-137	PCI/G	1/11	11	1/11	1.000-1.000	1.00	0.200	0.200	NA

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D.2.24 GREAT MIAMI RIVERBANK CHARACTERIZATION

This investigation was conducted in accordance with the Project Specific Plan for the Great Miami Riverbank Characterization in July and August 1993. The investigation area was approximately 200 by 500 feet along the west bank of the Great Miami River in the vicinity of the FEMP outfall line as shown in Figure D.2-28.

Several removal site evaluations, also known as Soil/Debris Management Plans, have been performed along the riverbank and in the vicinity of the old outfall pipeline. During construction of the new discharge line in 1993, the area contained within the cofferdam was excavated to install the pipeline. The objective of the characterization study was to identify the areal extent and levels of remaining contamination as a result of previous placement of potentially contaminated demolition rubble and gravel on the construction easement. The characterization consisted of conducting a surface radiological survey and completing 18 soil borings at grid point locations along the riverbank. All soil boring locations were south of the FEMP access road and along the north and south side of the limit of trench excavation for the new outfall pipeline. The southern boundary is the limit of the construction easement obtained by the FEMP to build the new outfall pipeline.

Soil samples in the characterization area were collected at each systematic triangular grid point and at judgmental sample points, selected on the basis of the surface radiological survey data. Soil samples were retrieved in 18-inch increments using a split-spoon sampler to an approximate depth of 13 feet below surface grade, to groundwater, or to nonpenetrating surfaces, whichever occurred first. From each boring, the soil sample exhibiting the greatest radiological activity was retained for full radiological analysis. If radiological activity readings at a given soil sampling location remained constant with increased depth, the soil sample that appeared to have been collected in disturbed material was submitted for full radiological analysis. Sampling locations for the Great Miami Riverbank Characterization are shown in Figure D.2-28.

Surface Soil

Table D.2-24 presents the distribution of radiological and chemical constituents in the surface soil of the Great Miami Riverbank Characterization study area. The maximum detection of each constituent was compared to the 95th percentile background value (background), if available, to determine whether the constituent was elevated above background. When the background value was not available, any detection of these constituents was reported.

Results of radiochemical analysis for the Great Miami Riverbank Characterization indicated that elevated total uranium concentrations are only present in the 0- to 1.5-foot depth sample of Boring 11181 with levels of 44 - 53 mg/kg, which exceeds five times background. Boring 11181 is located immediately south of the outfall pipeline, as shown in Figure D.2-28. Total thorium and radium-228 were detected at levels above, but less than two times background. Other radiological constituents either were detected at levels less than background or were not detected.

No analyses were conducted for inorganic constituents, volatile and semivolatile organic compounds, PCBs, and pesticides.

Subsurface Soil

Uranium isotopes, including uranium-238 and -234, were present in the subsurface soil depth interval of 1.5 to 3.0 feet at levels greater than five times background. Uranium-235/236 was detected at depths of 1.5 to 3.0 feet at levels between two and five times background. Concentrations of total uranium were reported in excess of five times background at depths of 1.5 to 3.0 and 3.0 to 5.0 feet. Detections of elevated total uranium were at Borings 11181 (1.5 to 3.0 feet) and 11178 (1.5 to 3.0 and 3.0 to 4.5 feet). The levels of these total uranium detections were in the range of 24.1 to 53.8 mg/kg.

As indicated in Table D.2-24, concentrations of total uranium were reported to have been present at depths of 5.0 to 10.0 feet and 10.0 to 15.0 feet at a maximum level of two to five times background. In addition, total thorium was reported at a maximum level slightly above background throughout the subsurface soil.

Cesium-137 was detected in the sample collected from Boring 11171 at a depth of 12.0 to 13.0 feet at 0.8 pCi/g, which is slightly elevated above background. Other radiological constituents were either detected at levels less than background or not detected.

As with surface soil, subsurface soil samples collected for the Great Miami Riverbank Characterization area were not analyzed for inorganic constituents, organic compounds (volatile and semivolatile organic compounds), PCBs, and pesticides.

Conclusion

Results of radiochemical analysis indicated that isotopes of uranium were detected at levels above background primarily to a depth of 5.0 feet in isolated locations, indicating contamination is not widespread. The radiological constituents included uranium-238, total uranium, and uranium-234.

The primary source of radiological contamination in the Great Miami riverbank characterization area is the potentially contaminated demolition debris placed in the area to minimize riverbank erosion. The potentially contaminated demolition debris, including concrete rubble, riprap and gravel, was generated from past demolition activities at the FEMP, such as removing large sections of concrete pads adjacent to process buildings. The lack of widespread contamination indicates that the majority of the debris contained little or no radiological contamination.

TABLE D.2.24
GREAT MIAMI RIVERBANK CHARACTERIZATION
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	0																	
0.5 - 1	0																	
1 - 1.5	5	O	■	O	O	O	-	O	●	●	O		-	-	-	-		O
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	3	■	■	■	O	-	▒	O	●	-	O				-	-		-
3 - 5	2	O	■	O	O	O	-	O	●	-	O		-	-	-	-		-
5 - 10	7	O	▒	O	O	-	-	O	●	O	O		-	-	-	-		-
10 - 15	9	O	▒	O	O	O	-	O	●	O	O		-	-	-	-		X
15 - 20	0																	

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	96.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	61.1	0.58	30.4	69.6
0 - 0.5	0																										
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1690	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

O Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

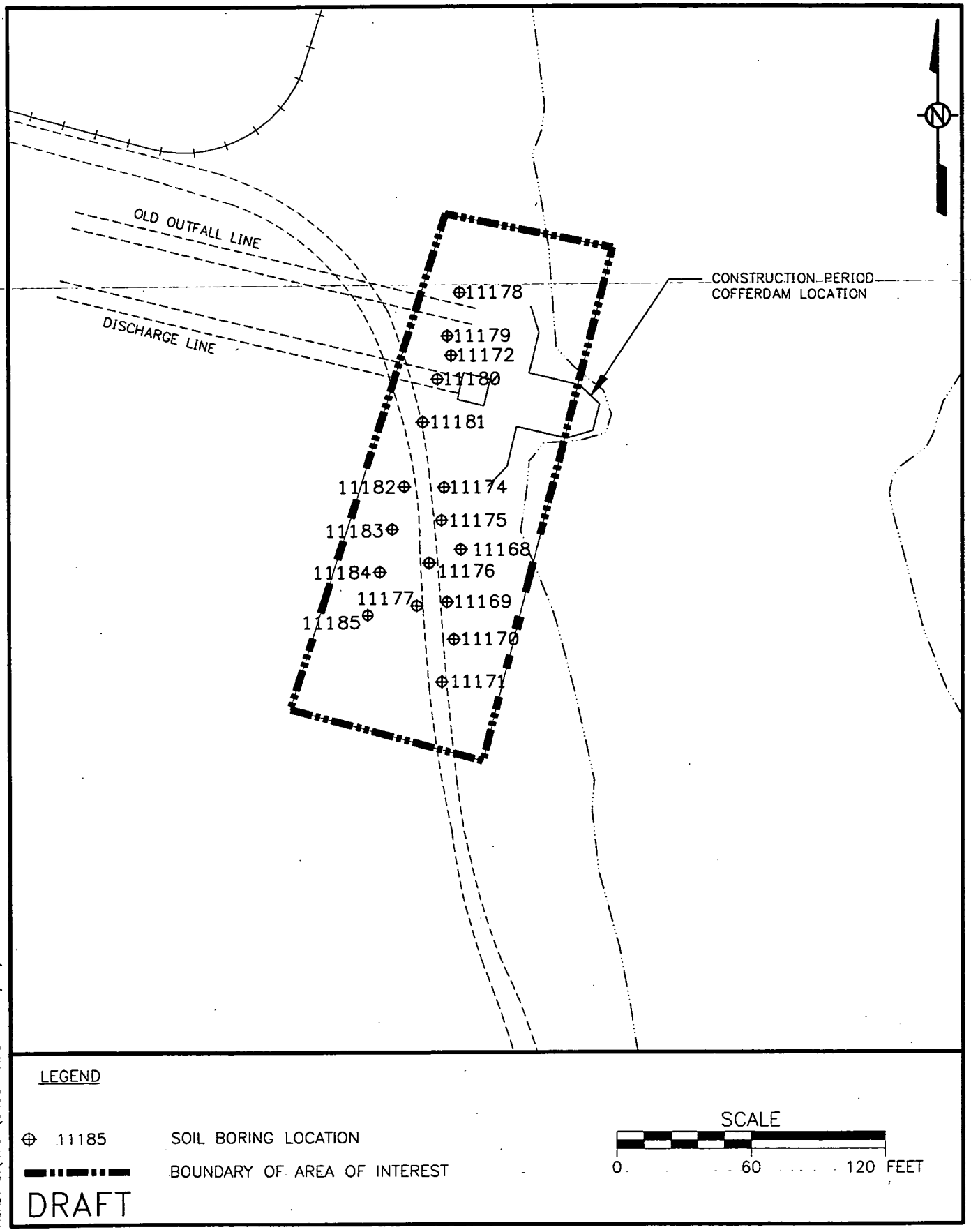

FIGURE D.2–28. GREAT MIAMI RIVERBANK CHARACTERIZATION

Great Miami Riverbank Characterization

Summary Soil Statistics

AREA: Great Miami Riverbank Characterization
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	1/2	2	0/2	0.600-0.600	0.60	1.100	1.100	1.24
URANIUM, TOTAL	MG/KG	8/23	0	4/23	2.200-53.000	16.39	11.000	11.000	3.73
URANIUM-234	PCI/G	2/2	2	0/2	0.700-1.200	0.95	1.100	1.100	1.24
THORIUM-230	PCI/G	4/4	4	0/4	0.300-1.200	0.83	1.100	1.100	1.97
RADIUM-226	PCI/G	2/5	5	0/5	0.600-0.900	0.75	0.250	0.250	1.42
URANIUM-235/236	PCI/G	0/2	2	0/2			0.100	0.100	0.156
THORIUM-232	PCI/G	4/4	4	0/4	0.300-0.700	0.50	1.100	1.100	1.36
THORIUM, TOTAL	MG/KG	6/23	0	2/23	2.736-18.000	9.04	18.000	18.000	12.4
RADIUM-228	PCI/G	1/5	5	1/5	1.400-1.400	1.40	0.500	0.600	1.25
THORIUM-228	PCI/G	4/4	4	0/4	0.300-0.700	0.55	1.100	1.100	1.43
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/5	5	0/5			0.500	1.600	0.424
TECHNETIUM-99	PCI/G	0/5	5	0/5			1.000	1.000	NA
CESIUM-137	PCI/G	1/5	5	0/5	0.300-0.300	0.30	0.200	0.200	0.711
GROSS ALPHA	PCI/G	5/5	0	5/5	4.700-10.300	7.42	1.100	1.100	
GROSS BETA	PCI/G	5/5	0	5/5	15.700-53.500	26.54	1.100	1.100	

AREA: Great Miami Riverbank Characterization
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	1/1	1	1/1	6.900-6.900	6.90	11.000	11.000	1.12
URANIUM, TOTAL	MG/KG	4/21	0	3/21	2.700-53.800	24.13	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	6.900-6.900	6.90	11.000	11.000	1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.800-0.800	0.80	11.000	11.000	1.91
RADIUM-226	PCI/G	0/1	1	0/1			0.250	0.250	1.47
URANIUM-235/236	PCI/G	1/1	1	1/1	0.400-0.400	0.40	11.000	11.000	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.500-0.500	0.50	11.000	11.000	1.26
THORIUM, TOTAL	MG/KG	3/21	0	2/21	4.560-18.000	13.52	18.000	18.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.500-0.500	0.50	11.000	11.000	1.38
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA
GROSS ALPHA	PCI/G	1/1	0	1/1	17.400-17.400	17.40	11.000	11.000	
GROSS BETA	PCI/G	1/1	0	1/1	34.100-34.100	34.10	11.000	11.000	

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AREA: Great Miami Riverbank Characterization
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.500-0.500	0.50	0.100	0.100	1.12
URANIUM, TOTAL	MG/KG	3/19	0	2/19	2.100-24.100	12.40	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.400-0.400	0.40	0.100	0.100	1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.400-0.400	0.40	0.100	0.100	1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.300-0.300	0.30	0.100	0.100	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.400-0.400	0.40	0.100	0.100	1.26
THORIUM, TOTAL	MG/KG	2/19	0	1/19	3.648-18.000	10.82	18.000	18.000	11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.600	0.600	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.300-0.300	0.30	0.100	0.100	1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.700	0.700	.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA
GROSS ALPHA	PCI/G	1/1	0	1/1	6.900-6.900	6.90	0.100	0.100	
GROSS BETA	PCI/G	1/1	0	1/1	17.100-17.100	17.10	0.100	0.100	

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AREA: Great Miami Riverbank Characterization
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	4/4	4	0/4	0.300-0.700	0.43	0.100	0.100	1.12
URANIUM, TOTAL	MG/KG	7/56	0	3/56	1.300-11.000	5.73	11.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	0/4	0.300-0.600	0.40	0.100	0.100	1.04
THORIUM-230	PCI/G	4/4	4	0/4	0.600-1.000	0.80	0.100	0.100	1.91
RADIUM-226	PCI/G	1/4	4	0/4	0.300-0.300	0.30	0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/4	4	0/4			0.100	0.100	0.150
THORIUM-232	PCI/G	4/4	4	0/4	0.300-0.500	0.43	0.100	0.100	1.26
THORIUM, TOTAL	MG/KG	7/56	0	3/56	2.736-18.000	9.93	18.000	18.000	11.1
RADIUM-228	PCI/G	1/4	4	0/4	0.600-0.600	0.60	0.600	0.600	1.31
THORIUM-228	PCI/G	4/4	4	0/4	0.300-0.500	0.40	0.100	0.100	1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/4	4	0/4			0.500	1.100	.436
TECHNETIUM-99	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	4	0/4			0.200	0.200	NA
GROSS ALPHA	PCI/G	3/4	0	3/4	5.200-7.100	6.00	4.600	4.600	
GROSS BETA	PCI/G	4/4	0	4/4	9.900-44.900	23.23	0.100	0.100	

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AREA: Great Miami Riverbank Characterization
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	4/4	4	0/4	0.200-0.900	0.53	0.100	0.100	1.12
URANIUM, TOTAL	MG/KG	10/54	0	5/54	1.100-11.000	5.74	11.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	0/4	0.200-0.900	0.50	0.100	0.100	1.04
THORIUM-230	PCI/G	6/6	6	0/6	0.500-1.300	0.65	0.100	0.100	1.91
RADIUM-226	PCI/G	1/6	6	0/6	0.300-0.300	0.30	0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/4	4	0/4			0.100	0.100	0.150
THORIUM-232	PCI/G	6/6	6	0/6	0.200-0.600	0.28	0.100	0.100	1.26
THORIUM, TOTAL	MG/KG	10/54	0	4/54	1.824-18.000	8.75	18.000	18.000	11.1
RADIUM-228	PCI/G	1/6	6	0/6	0.600-0.600	0.60	0.500	0.700	1.31
THORIUM-228	PCI/G	5/6	6	0/6	0.200-0.700	0.34	0.100	0.100	1.38
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.200	0.200	NA
STRONTIUM-90	PCI/G	0/6	6	0/6			0.500	0.600	.436
TECHNETIUM-99	PCI/G	0/6	6	0/6			1.000	1.000	NA
CESIUM-137	PCI/G	1/6	6	1/6	0.800-0.800	0.80	0.200	0.200	NA
GROSS ALPHA	PCI/G	2/6	0	2/6	5.800-6.000	5.90	3.600	3.600	
GROSS BETA	PCI/G	5/6	0	5/6	7.100-13.200	9.02	5.400	5.400	

001312

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D.2.25 SOUTHWEST FIELD

Aerial photography from 1954 indicated soil excavation activity in the Southwest Field (see Figure D.2-29) which was interpreted as a potential disposal area. The Southwest Field investigation was conducted in December 1993 to determine whether a contaminant source existed in this area.

Surface and Subsurface Soil

Sampling locations are shown in Figure D.2-29. Results of the investigation produced no evidence of disturbed soil. Field screening for radiological or chemical contamination did not indicate detections. Laboratory results indicated no highly elevated levels of total uranium, the only radionuclide for which analyses were performed; test results were compared to background. Table D.2-25 presents the distribution of total uranium constituents with respect to these levels with depth. One sample each in the 0- to 0.5-foot and 5.0- to 10-foot depth intervals had a total uranium detection greater than twice background.

Conclusions

Radionuclide contamination is not associated with a contaminant source in the Southwest Field. The probable source of radionuclide contamination in the surface soil is airborne deposition.

TABLE D.2-25
SOUTHWEST FIELD AREA
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	5		●															
0.5 - 1	1		●															
1 - 1.5	2		●															
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	5		●															
3 - 5	0																	
5-10	9		●															
10 - 15	4		●															
15 - 20	5		●															

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	0																										
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1690	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5-10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

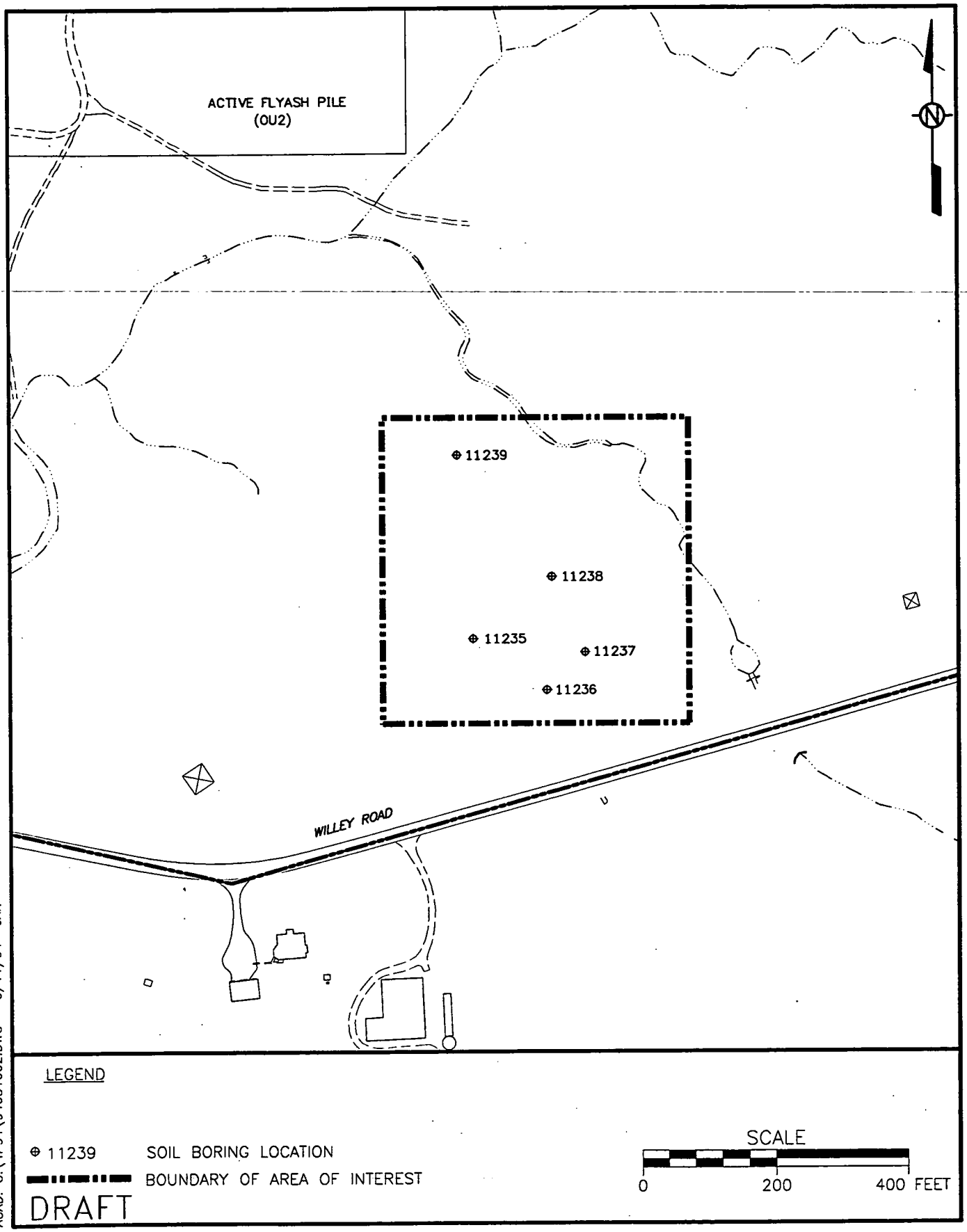

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FIGURE D.2-29. SOUTHWEST FIELD AREA

Southwest Field Area

Summary Soil Statistics

AREA: Southwest Field Area
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 0 - .5 FEET									
URANIUM, TOTAL	MG/KG	5/5	0	3/5	1.000-9.000	5.00			3.73

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AREA: Southwest Field Area
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM, TOTAL	MG/KG	1/1	0	1/1	7.000-7.000	7.00			3.73

001318

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AREA: Southwest Field Area
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM, TOTAL	MG/KG	2/2	0	2/2	7.000-7.000	7.00			3.73

001519

05/19/94

AREA: Southwest Field Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM, TOTAL	MG/KG	5/5	0	4/5	1.000-6.000	4.20			3.69

001320

05/19/94

AREA: Southwest Field Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM, TOTAL	MG/KG	8/9	0	6/9	1.000-8.000	5.13	1.000	1.000	3.69

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AREA: Southwest Field Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 10 - 15 FEET									
URANIUM, TOTAL	MG/KG	4/4	0	2/4	1.000-6.000	3.75			3.69

05/19/94

001322

AREA: Southwest Field Area
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM, TOTAL	MG/KG	4/5	0	1/5	1.000-5.000	2.50	1.000	1.000	3.69

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D.2.26 NORTHEASTERN AREA OF FEMP

The northeastern area of the FEMP property consists mainly of a densely wooded area of pine trees in the far northern section and open fields close to the former production area boundary. The area is located north and east of the former production area, to the fenced boundary of the FEMP in each direction, and surrounds the sewage treatment plant area. No known disposal or plant-related activities were associated with this area of the FEMP. This area is located in the primary downwind direction of the former production area. Soil samples were collected from this area under the site-wide RI/FS Work Plan and the RI/FS Work Plan Addendum investigations.

Surface Soil

Surface soil sampling locations in the northeastern area of the FEMP property are shown in Figure D.2-30. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was elevated above background in the area. Table D.2-26 presents the distribution of constituents with respect to background for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

More than 80 sampling locations in this area were utilized for characterization of radiological contamination in the surface soil. Most of the samples that were collected from the surface soil depth intervals exhibited elevated activities of uranium isotopes and total uranium. The elevated concentrations of total uranium were initially at levels exceeding five times background for the 0- to 0.5-foot interval and, for most of the samples with results in lower depth intervals, decreased to levels near or below two times background for the samples collected from the 0.5- to 1.0-foot and 1.0- to 1.5-foot intervals. Other radionuclides were primarily detected in a few samples and also decreased sharply at depth.

While more than half of the elevated total uranium detections in the surface soil were lower than 70 mg/kg, the maximum level of total uranium was 5533.31 mg/kg observed at sampling location Zone 2-230, which is located approximately 600 feet northeast of Plant 9. At this sampling location, activities of uranium isotopes including uranium-238, uranium-234, and uranium-235/236 were detected at 1849 pCi/g, 2899 pCi/g. and 49.3 pCi/g, respectively, which coincided with the maximum levels observed for these constituents in the surface soil. In addition, a number of surface soil samples were collected under the 1986 uranium assessment project for an on-going litigation case.

These samples, all located at one sampling station approximately 200 feet north of the sewage treatment plant, showed elevated activities of uranium isotopes and total uranium (ranging from 7.58 mg/kg to 480.33 mg/kg).

Elevated activities of thorium isotopes and total thorium were detected only in few sampling locations in this area. The maximum levels for thorium-230 (7901 pCi/g), thorium-232 (104.60 pCi/g), and total thorium (954.35 mg/kg) were detected in the 0- to 0.5-foot depth sample collected from sample location Zone 1-181, which is located approximately 200 feet east of Plant 9.

Other radionuclides that were detected at elevated levels include radium-226, radium-228, strontium-90, technetium-99, and cesium-137. These radionuclides were detected at elevated levels in up to one half of the samples analyzed, mostly with levels slightly above the background. The maximum level of radium-228 (558.0 pCi/g) was detected in the 0- to 0.5-foot depth sample collected from sample location Zone 1-181. No activities of neptunium-237, plutonium-239/240, plutonium-238, and ruthenium-106 were detected in the surface soil samples.

Within the 0- to 0.5-foot depth interval, 10 inorganic constituents were at levels at least two times background. Of these constituents, only beryllium, calcium, and magnesium concentrations were elevated above five times background. All three of these compounds decreased significantly in concentration within the 1.0- to 1.5-foot depth, however. Molybdenum and silver were detected, but no background levels were recorded.

The only volatile organic compounds detected in the surface soil were acetone and methylene chloride, both common laboratory contaminants. Each was detected in the 0- to 0.5-foot depth interval only.

Ten semivolatile organic compounds, mainly PAHs, were detected in a maximum of 4 samples out of 22 samples collected from the 0- to 0.5-foot interval. These detections of semivolatile organic compounds ranged from 31 μg/kg to 100 μg/kg. None of these compounds were detected in the 1.0- to 1.5-foot depth interval. The pesticide endrin aldehyde was detected at 15 μg/kg in the 0- to 0.5-foot depth interval only. No PCBs were detected in the surface soil of this area.

Subsurface Soil

The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-26 presents the distribution of constituents with respect to background for each sample depth interval.

Radionuclide levels in the northeastern area of the FEMP decreased significantly within the subsurface soil. In sparadic boring locations, total uranium exhibited elevated concentrations to a depth of 20 feet. Most of the elevated total uranium concentrations were, in the range of 5 mg/kg to 7 mg/kg, but 16 mg/kg was reported as the maximum detection in the 2- to 2.5-foot depth sample collected from Boring 1160 and 11 mg/kg was in the 19.5- to 20.0-foot depth of Boring 1498. Both borings are located east of Plant 6. Strontium-90 was detected at significantly elevated concentrations, 9.40 pCi/g and 2.16 pCi/g, in the 1.5- to 3.0-foot (Boring 3120) and 10.0- to 15.0-foot (Boring 1737) intervals, respectively.

The only inorganic constituent to show significantly elevated concentrations within the subsurface soil zone was molybdenum at the 1.5- to 3.0-foot and 5.0- to 10.0-foot depth intervals. Silver was detected at these depth intervals, as well, but no background level was recorded.

Three volatile organic compounds, 1,1,1-trichloroethane, acetone, and carbon disulfide, were detected at concentration ranges from 2 ug/kg to 25 ug/kg only in the 12.0- to 12.5-foot depth interval. These were the only volatiles detected in the subsurface soil samples in this area. The common laboratory contaminant, bis(2-ethylhexyl)phthalate, was the only semivolatile organic compound detected in three samples collected in the 5.0- to 10.0-foot and 10- to 15-foot intervals throughout the subsurface soil in this area. No pesticides or PCBs were detected in the subsurface soils of the northeastern area of the FEMP.

Conclusions

The majority of the soil contamination present in this area is located within surface soil. Total uranium is the most significantly elevated contaminant present within the top 20 feet of soil.

Most of the high levels of total uranium in the surface soil were dtected in areas witin short distance east of Plant 9, north of Sewage Treatment Plant, and north of the northeast production area.

Elevated levels of toal uranium in the subsurface soil were relatively low and concentrated in the area east of Plant 6.

The probable source of uranium contamination in this area, at levels of 10 to 70 mg/kg, is airborne deposition from emissions, since the area is located immediately downwind of the production area. These emissions may have resulted from past activities in the production area and from operation of the incinerator located at the sewage treatment plant. No processes or routes are knowin to levels of radionuclides attributed to the high detected in the surface soil east of Plant 9 and in the subsurface soil east of Plant 6.

TABLE D.2-26
NORTHEASTERN AREA OF FEMP
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Thorium-234	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Radium-224	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																				
95% Background Value		1.24	3.77 ug/g	NA	1.24	1.97	1.42	0.156	1.36	12.4	1.25	1.47	0.900	NA	NA	NA	0.424	ND	NA	0.711
0 - 0.5	79	■	■	X	■	■	●	■	■	■	■	■	●	-	-	-	■	X	-	●
0.5 - 1	3	■	■		■	▒	○	■	○	○	○	○		-	-	-	-	-	-	-
1 - 1.5	4	■	■		■	▒	○	■	○	○	●	○		-	-	-	●	-	-	-
Subsurface Soil:																				
95% Background Value		1.23	3.73 ug/g	NA	1.11	1.91	1.47	0.138	1.25	11.4 ug/g	1.31	1.39	1.01	ND	ND	ND	0.436	ND	ND	ND
1.5 - 3	3	■	■		■	○	○	-	○	▒	○	○		-	-	-	■	-	-	-
3 - 5	2	○	▒		○	○	○	-	○	○	-	○								
5 - 10	3	○	●		●	○	○	-	○	▒	-	○								
10 - 15	2	○	●		○	○	○	-	○	○	○	●			-	-	▒	-	-	-
15 - 20	4	●	▒		●	○	○	-	○	○	○	○							-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95% Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	61.1	0.58	30.4	69.6
0 - 0.5	23	●	X	●	▒	■	▒	■	●	●	▒	●	▒	●	■	▒	-	X	▒	●	○	○	X	▒	●	●	●
0.5 - 1	0																										
1 - 1.5	2	●	-	○	●	●	-	●	○	○	●	○	○	○	○	○	-	X	○	○	-	○	X	●	-	●	○
Subsurface Soil:																											
95% Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	2	●	-	○	○	●	-	○	●	○	●	-	○	●	○	○	-	▒	○	○	-	○	X	○	-	●	○
3 - 5	1	○	-	○	○	-	-	○	○	○	●	-	●	○	○	○	-	-	-	○	-	○	-	-	-	○	○
5 - 10	2	○		○	○	●	-	○	○	○	○	-	○	○	○	○	-	▒	○	●	-		X	○	-	○	○
10 - 15	1	○		○	○	○	-	●	○	○	○	-	○	○	○	○	-	-	○	○	-		-	○	-	○	○
15 - 20	1	○		○	○	○	-	○	○	○	○	-	○	○	○	○	-	-	○	○	-		-	○	-	○	○

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-26
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)										SEMIVOLATILES (ug/kg)												PESTICIDES /PCBs(ug/kg)										
	Number of Samples	1,1,1-Trichloroethane	Acetone	Carbon disulfide	Methylene chloride						Number of Samples	Benzoic acid	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Chrysene	Fluoranthene	Phenanthrene	Pyrene		Number of Samples	Endrin Aldehyde										
Surface Soil:																																	
0 - 0.5	23	-	X	-	X						22	X	X	X	X	X	X	X	X	X	X		22	X										
0.5 - 1	0										0												0										
1 - 1.5	2	-	-	-	-						2	-	-	-	-	-	-	-		-	-		2	-										
Subsurface Soil:																																	
1.5 - 3	2	-	-	-	-						2	-	-	-	-	-	-	-		-	-		2	-										
3 - 5	1	-	-	-	-						1	-	-	-	-	-	-	-		-	-		1	-										
5 - 10	2	-	-	-	-						2	-	-	-	-	-	X	-		-	-		2	-										
10 - 15	1	X	X	X	-						1	-	-	-	-	-	X	-		-	-		1	-										
15 - 20	1	-	-	-	-						1	-	-	-	-	-	-	-		-	-		1	-										

[ ] "Blank" - Compound was not analyzed.

[-] Analyzed and not detected.

[X] Detection where background level not recorded.

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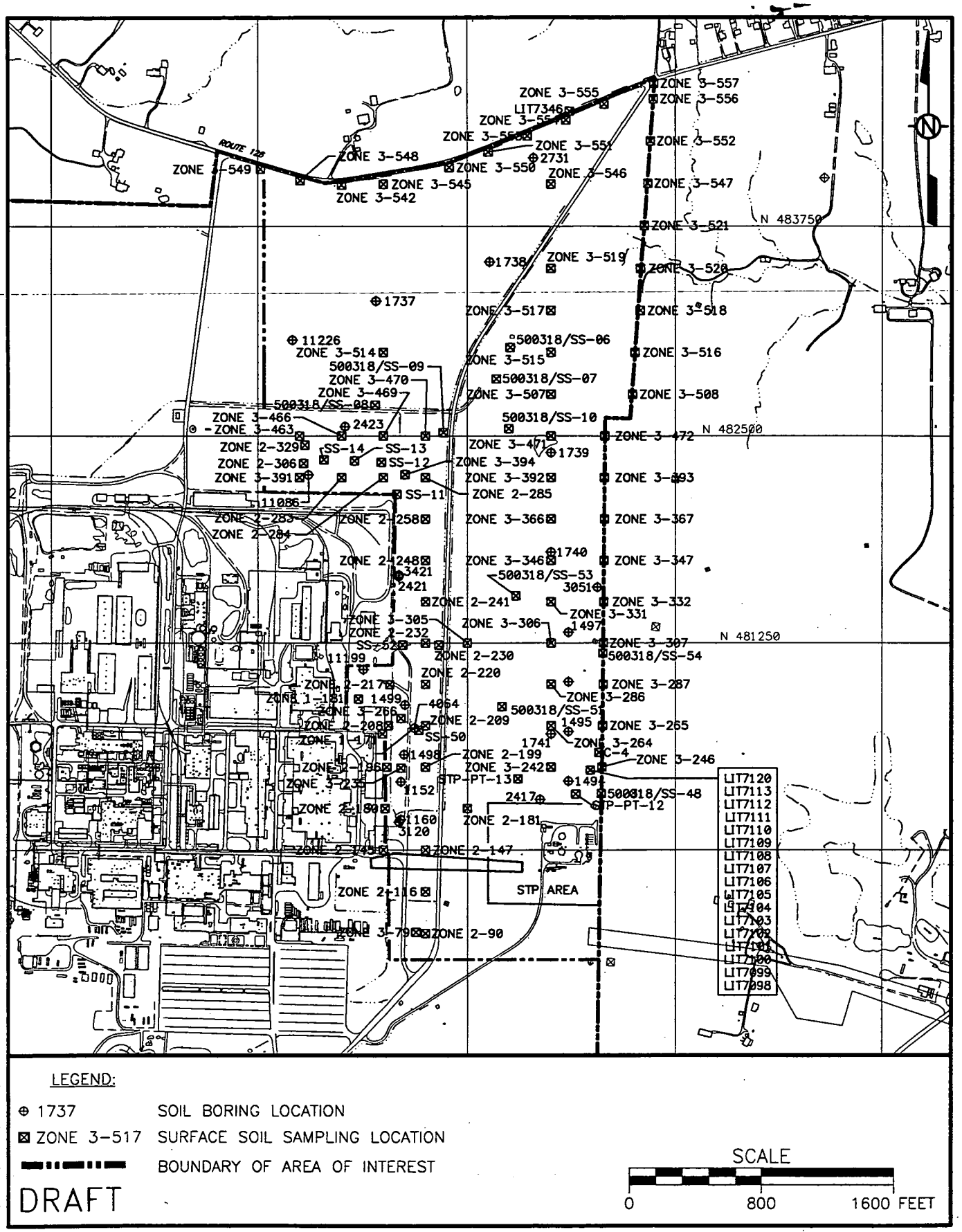

LEGEND:

⊕ 1737 SOIL BORING LOCATION

⊠ ZONE 3-517 SURFACE SOIL SAMPLING LOCATION

BOUNDARY OF AREA OF INTEREST

DRAFT

SCALE

0 800 1600 FEET

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FIGURE D.2-30. NORTHEASTERN AREA OF THE FEMP

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Northeastern Area of FEMP

Summary Soil Statistics

001[illegible]1

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	131/131	87	130/131	0.500-1849.000	32.11			1.24
URANIUM, TOTAL	MG/KG	141/141	85	140/141	1.400-5533.310	107.20			3.73
URANIUM-234	PCI/G	131/131	87	130/131	0.600-2899.000	38.37			1.24
THORIUM-230	PCI/G	91/94	88	48/94	0.400-7901.000	89.05	9.600	13.000	1.97
RADIUM-226	PCI/G	70/81	75	4/81	0.300-2.300	1.01	0.300	0.500	1.42
URANIUM-235/236	PCI/G	91/134	90	90/134	0.140-49.300	1.85	0.100	0.600	0.156
THORIUM-232	PCI/G	87/91	85	16/91	0.200-104.600	2.33	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	88/96	9	16/96	1.824-954.349	21.07	5.472	23.000	12.4
RADIUM-228	PCI/G	71/81	75	23/81	0.600-558.000	9.06	0.500	1.000	1.25
THORIUM-228	PCI/G	89/91	85	31/91	0.700-39.200	1.78	0.100	0.600	1.43
NEPTUNIUM-237	PCI/G	0/71	65	0/71			0.600	6.000	NA
PLUTONIUM-239/240	PCI/G	0/91	85	0/91			0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/91	85	0/91			0.200	0.600	NA
STRONTIUM-90	PCI/G	44/89	83	44/89	0.600-6.500	1.87	0.500	0.800	0.424
TECHNETIUM-99	PCI/G	7/78	61	7/78	1.100-24.000	5.14	1.000	2.300	NA
RUTHENIUM-106	PCI/G	0/78	72	0/78			1.000	2.800	NA
CESIUM-137	PCI/G	67/79	73	26/79	0.220-1.400	0.68	0.200	0.200	0.711
GROSS ALPHA	PCI/G	9/9	4	9/9	13.500-37.800	20.01			
GROSS BETA	PCI/G	9/9	4	9/9	19.200-43.000	30.36			
ACTINIUM-227	PCI/G	0/3	3	0/3			0.200	0.500	0.09
PROTACTINIUM-231	PCI/G	0/3	3	0/3			1.400	2.900	ND
RADIUM-224	PCI/G	3/3	3	3/3	1.186-1.583	1.38			0.900

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
THORIUM-234		2/3	3	2/3	20.900-36.900	28.90	33.400	33.400	NA

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: no title found									
URANIUM-238	PCI/G	7/10	10	2/10	0.700-4.200	1.37	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	6/10	10	2/10	2.364-12.794	4.62	2.000	4.500	3.69
URANIUM-234	PCI/G	7/10	10	1/10	0.700-1.450	0.88	0.600	0.600	1.04
THORIUM-230	PCI/G	8/10	10	2/10	0.900-153.000	20.47	0.600	0.600	1.91
RADIUM-226	PCI/G	6/9	9	0/9	0.400-1.010	0.66	0.300	0.400	1.47
URANIUM-235/236	PCI/G	0/10	10	0/10			0.600	0.600	0.150
THORIUM-232	PCI/G	4/10	10	1/10	0.600-2.900	1.33	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	6/10	7	1/10	3.000-26.000	9.21	5.472	5.472	11.1
RADIUM-228	PCI/G	2/9	9	0/9	0.700-1.000	0.85	0.500	0.900	1.31
THORIUM-228	PCI/G	5/10	10	2/10	0.600-2.700	1.48	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/9	9	0/9			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/10	10	0/10			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/10	10	0/10			0.600	0.600	NA
STRONTIUM-90	PCI/G	3/10	10	3/10	0.550-1.900	1.35	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/7	7	0/7			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/9	9	0/9			1.000	1.000	NA
CESIUM-137	PCI/G	0/9	9	0/9			0.200	0.200	NA
GROSS ALPHA	PCI/G	1/1	1	1/1	580.000-580.000	580.00			
GROSS BETA	PCI/G	1/1	1	1/1	9.480-9.480	9.48			

AREA: Northeastern Area of FEMP
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	2/2	2	2/2	9.700-339.000	174.35			1.24
URANIUM, TOTAL	MG/KG	8/10	8	8/10	9.000-893.000	135.88	11.000	11.000	3.73
URANIUM-234	PCI/G	2/2	2	2/2	3.900-51.500	27.70			1.24
THORIUM-230	PCI/G	2/2	2	1/2	1.600-7.600	4.60			1.97
RADIUM-226	PCI/G	2/2	2	0/2	0.800-1.100	0.95			1.42
URANIUM-235/236	PCI/G	1/2	2	1/2	3.800-3.800	3.80	0.600	0.600	0.156
THORIUM-232	PCI/G	2/2	2	0/2	0.800-0.900	0.85			1.36
THORIUM, TOTAL	MG/KG	2/4	0	0/4	7.296-8.208	7.75	23.000	23.000	12.4
RADIUM-228	PCI/G	1/2	2	0/2	1.100-1.100	1.10	0.500	0.500	1.25
THORIUM-228	PCI/G	2/2	2	0/2	0.900-1.000	0.95			1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	0.711

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AREA: Northeastern Area of FEMP
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	4/4	4	3/4	1.200-259.000	66.98			1.24
URANIUM, TOTAL	MG/KG	10/12	10	9/12	3.700-1100.000	120.47	11.000	11.000	3.73
URANIUM-234	PCI/G	4/4	4	3/4	1.100-46.700	12.83			1.24
THORIUM-230	PCI/G	4/4	4	2/4	0.800-5.600	2.55			1.97
RADIUM-226	PCI/G	4/4	4	0/4	0.300-1.200	0.80			1.42
URANIUM-235/236	PCI/G	1/4	4	1/4	4.300-4.300	4.30	0.100	0.600	0.156
THORIUM-232	PCI/G	4/4	4	0/4	0.700-1.200	0.90			1.36
THORIUM, TOTAL	MG/KG	4/6	0	0/6	6.384-10.944	8.21	23.000	23.000	12.4
RADIUM-228	PCI/G	2/4	4	1/4	1.100-1.300	1.20	0.500	0.600	1.25
THORIUM-228	PCI/G	4/4	4	0/4	0.800-1.200	0.95			1.43
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/2	2	1/2	0.600-0.600	0.60	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	0.711

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	3/3	3	3/3	1.400-7.600	3.77			1.12
URANIUM, TOTAL	MG/KG	10/12	9	10/12	3.700-16.000	7.88	11.000	11.000	3.69
URANIUM-234	PCI/G	3/3	3	2/3	0.900-7.500	3.47			1.04
THORIUM-230	PCI/G	3/3	3	0/3	1.100-1.200	1.13			1.91
RADIUM-226	PCI/G	3/3	3	0/3	0.300-1.070	0.79			1.47
URANIUM-235/236	PCI/G	0/3	3	0/3			0.100	0.600	0.150
THORIUM-232	PCI/G	2/3	3	0/3	0.700-0.900	0.80	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	4/6	1	1/6	5.000-25.000	11.15	23.000	23.000	11.1
RADIUM-228	PCI/G	1/3	3	0/3	1.200-1.200	1.20	0.500	0.500	1.31
THORIUM-228	PCI/G	3/3	3	0/3	1.000-1.000	1.00			1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	9.400-9.400	9.40			.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.900-0.900	0.90			1.12
URANIUM, TOTAL	MG/KG	7/7	7	6/7	2.500-14.000	6.93			3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.800-0.800	0.80			1.04
THORIUM-230	PCI/G	1/1	1	0/1	0.800-0.800	0.80			1.91
RADIUM-226	PCI/G	1/1	1	0/1	0.800-0.800	0.80			1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.100	0.100	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.600-0.600	0.60			1.26
THORIUM, TOTAL	MG/KG	1/1	0	0/1	5.472-5.472	5.47			11.1
RADIUM-228	PCI/G	0/1	1	0/1			0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.700-0.700	0.70			1.38

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	2/2	2	0/2	1.000-1.100	1.05			1.12
URANIUM, TOTAL	MG/KG	6/9	6	5/9	2.400-6.000	4.83	11.000	11.000	3.69
URANIUM-234	PCI/G	2/2	2	1/2	0.800-1.200	1.00			1.04
THORIUM-230	PCI/G	2/2	2	0/2	1.000-1.200	1.10			1.91
RADIUM-226	PCI/G	1/2	2	0/2	0.500-0.500	0.50	0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.100	0.100	0.150
THORIUM-232	PCI/G	2/2	2	0/2	0.700-0.800	0.75			1.26
THORIUM, TOTAL	MG/KG	3/5	0	1/5	6.384-23.000	12.23	23.000	23.000	11.1
RADIUM-228	PCI/G	0/2	2	0/2			0.500	0.500	1.31
THORIUM-228	PCI/G	2/2	2	0/2	0.700-0.800	0.75			1.38

AREA: Northeastern Area of FEMP
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	1/2	2	0/2	1.000-1.000	1.00	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	10/13	11	8/13	2.000-6.000	4.78	3.900	11.000	3.69
URANIUM-234	PCI/G	1/2	2	0/2	0.800-0.800	0.80	0.600	0.600	1.04
THORIUM-230	PCI/G	2/2	2	0/2	0.900-1.080	0.99			1.91
RADIUM-226	PCI/G	1/2	2	0/2	0.600-0.600	0.60	0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.100	0.600	0.150
THORIUM-232	PCI/G	2/2	2	0/2	0.620-0.700	0.66			1.26
THORIUM, TOTAL	MG/KG	2/4	1	0/4	5.620-6.384	6.00	23.000	23.000	11.1
RADIUM-228	PCI/G	1/2	2	0/2	0.640-0.640	0.64	0.500	0.500	1.31
THORIUM-228	PCI/G	2/2	2	1/2	0.700-2.140	1.42			1.38
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/1	1	1/1	2.160-2.160	2.16			.436
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA
GROSS ALPHA	PCI/G	1/1	1	1/1	47.500-47.500	47.50			
GROSS BETA	PCI/G	1/1	1	1/1	16.700-16.700	16.70			

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	5/5	5	1/5	0.860-1.700	1.04			1.12
URANIUM, TOTAL	MG/KG	10/12	10	4/12	2.655-11.000	4.54	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	1.800-1.800	1.80			1.04
THORIUM-230	PCI/G	1/1	1	0/1	1.000-1.000	1.00			1.91
RADIUM-226	PCI/G	4/5	5	0/5	0.720-0.810	0.77	0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/5	5	0/5			0.100	0.300	0.150
THORIUM-232	PCI/G	1/1	1	0/1	0.500-0.500	0.50			1.26
THORIUM, TOTAL	MG/KG	1/3	0	0/3	4.560-4.560	4.56	23.000	23.000	11.1
RADIUM-228	PCI/G	4/5	5	0/5	0.590-0.890	0.73	0.500	0.500	1.31
THORIUM-228	PCI/G	1/1	1	0/1	0.500-0.500	0.50			1.38
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	4	0/4			0.200	0.200	NA

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AREA: Northeastern Area of FEMP
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	24/24	24	5/24	1110.000-16000.000	9067.08			11900
ANTIMONY	MG/KG	3/23	23	3/23	2.800-3.700	3.13	2.300	7.800	NA
ARSENIC	MG/KG	23/24	24	2/24	1.900-13.500	6.16	3.000	3.000	8.20
BARIUM	MG/KG	24/24	24	11/24	16.100-241.000	94.41			95.7
BERYLLIUM	MG/KG	11/24	24	8/24	0.480-5.700	1.37	0.490	1.400	0.6
CADMIUM	MG/KG	3/24	24	2/24	0.530-1.900	1.34	0.480	1.400	0.870
CALCIUM	MG/KG	24/24	24	8/24	1120.000-208000.000	20510.83			4340
CHROMIUM	MG/KG	22/24	24	7/24	3.200-24.200	13.70	11.800	12.400	15.5
COBALT	MG/KG	22/24	24	7/24	5.700-22.200	12.36	1.500	3.600	14.2
COPPER	MG/KG	23/24	24	9/24	3.800-31.000	14.05	6.100	6.100	14.1
CYANIDE	MG/KG	13/24	24	10/24	0.140-0.470	0.34	0.100	2.600	0.270
IRON	MG/KG	24/24	24	7/24	3150.000-45100.000	19259.58			21700
LEAD	MG/KG	18/18	18	4/18	2.800-32.300	19.98			26.4
MAGNESIUM	MG/KG	24/24	24	8/24	1200.000-65300.000	8156.25			2780
MANGANESE	MG/KG	18/18	18	4/18	369.000-4400.000	1172.94			1350
MERCURY	MG/KG	0/24	24	0/24			0.050	0.130	0.3
MOLYBDENUM	MG/KG	7/24	24	7/24	5.300-12.400	8.53	3.500	4.600	NA
NICKEL	MG/KG	23/24	24	5/24	3.800-43.600	16.43	6.200	6.200	20.9
POTASSIUM	MG/KG	24/24	24	8/24	237.000-1940.000	918.67			1230
SELENIUM	MG/KG	3/18	18	0/18	0.510-0.570	0.54	0.210	0.540	0.72
SILICON	MG/KG	23/23	23	0/23	141.000-1580.000	434.17			1800
SILVER	MG/KG	2/24	24	2/24	0.480-6.100	3.29	0.410	2.600	NA

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	21/24	24	12/24	25.200-141.000	63.10	31.300	113.000	51.1
THALLIUM	MG/KG	1/24	24	1/24	0.750-0.750	0.75	0.210	0.520	0.58
VANADIUM	MG/KG	24/24	24	7/24	11.400-42.900	27.97			30.4
ZINC	MG/KG	23/24	24	5/24	15.400-90.900	50.76	10.000	10.000	59.6

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	2/2	2	1/2	10200.000-12300.000	11250.00			11900
ANTIMONY	MG/KG	0/1	1	0/1			2.700	2.700	NA
ARSENIC	MG/KG	2/2	2	0/2	4.600-4.800	4.70			8.20
BARIUM	MG/KG	2/2	2	2/2	97.000-121.000	109.00			95.7
BERYLLIUM	MG/KG	1/2	2	1/2	0.640-0.640	0.64	1.100	1.100	0.6
CADMIUM	MG/KG	0/2	2	0/2			1.100	1.200	0.870
CALCIUM	MG/KG	2/2	2	1/2	3450.000-8540.000	5995.00			4340
CHROMIUM	MG/KG	2/2	2	0/2	11.500-13.500	12.50			15.5
COBALT	MG/KG	2/2	2	0/2	3.800-9.700	6.75			14.2
COPPER	MG/KG	1/2	2	1/2	15.900-15.900	15.90	14.000	14.000	14.1
CYANIDE	MG/KG	1/2	2	0/2	0.110-0.110	0.11	0.310	0.310	0.270
IRON	MG/KG	2/2	2	0/2	17000.000-19700.000	18350.00			21700
LEAD	MG/KG	2/2	2	0/2	14.100-18.200	16.15			26.4
MAGNESIUM	MG/KG	2/2	2	0/2	2520.000-2730.000	2625.00			2780
MANGANESE	MG/KG	2/2	2	0/2	206.000-767.000	486.50			1350
MERCURY	MG/KG	0/2	2	0/2			0.110	0.120	0.3
MOLYBDENUM	MG/KG	1/2	2	1/2	4.700-4.700	4.70	4.200	4.200	NA
NICKEL	MG/KG	1/2	2	0/2	11.300-11.300	11.30	14.500	14.500	20.9
POTASSIUM	MG/KG	2/2	2	0/2	648.000-945.000	796.50			1230
SELENIUM	MG/KG	0/2	2	0/2			0.250	0.410	0.72
SILICON	MG/KG	1/1	1	0/1	373.000-373.000	373.00			1800
SILVER	MG/KG	1/2	2	1/2	5.800-5.800	5.80	0.500	0.500	NA

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	1/2	2	1/2	70.300-70.300	70.30	45.800	45.800	51.1
THALLIUM	MG/KG	0/2	2	0/2			0.250	0.410	0.58
VANADIUM	MG/KG	2/2	2	1/2	18.600-36.700	27.65			30.4
ZINC	MG/KG	2/2	2	0/2	41.500-44.500	43.00			59.6

000365

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	2/2	2	1/2	7550.000-18100.000	12825.00			16100
ANTIMONY	MG/KG	0/1	1	0/1			2.700	2.700	NA
ARSENIC	MG/KG	2/2	2	0/2	4.900-8.600	6.75			9.57
BARIUM	MG/KG	2/2	2	0/2	103.000-110.000	106.50			119
BERYLLIUM	MG/KG	1/2	2	1/2	1.000-1.000	1.00	0.970	0.970	0.620
CADMIUM	MG/KG	0/2	2	0/2			0.990	1.200	0.910
CALCIUM	MG/KG	2/2	2	0/2	3490.000-7670.000	5580.00			150000
CHROMIUM	MG/KG	2/2	2	1/2	9.700-20.900	15.30			20.7
COBALT	MG/KG	2/2	2	0/2	8.800-11.200	10.00			15.7
COPPER	MG/KG	1/2	2	1/2	24.200-24.200	24.20	11.300	11.300	20.0
CYANIDE	MG/KG	0/2	2	0/2			0.100	0.300	.17
IRON	MG/KG	2/2	2	0/2	17900.000-30400.000	24150.00			30700
LEAD	MG/KG	2/2	2	1/2	13.600-17.900	15.75			15.6
MAGNESIUM	MG/KG	2/2	2	0/2	2010.000-4840.000	3425.00			42600
MANGANESE	MG/KG	2/2	2	0/2	463.000-886.000	674.50			1300
MERCURY	MG/KG	0/2	2	0/2			0.100	0.100	0.29
MOLYBDENUM	MG/KG	1/2	2	1/2	7.100-7.100	7.10	4.100	4.100	2.7
NICKEL	MG/KG	1/2	2	0/2	25.900-25.900	25.90	10.400	10.400	34.3
POTASSIUM	MG/KG	2/2	2	0/2	440.000-1580.000	1010.00			1980
SELENIUM	MG/KG	0/2	2	0/2			0.240	0.400	NA
SILICON	MG/KG	1/1	1	0/1	262.000-262.000	262.00			1590
SILVER	MG/KG	1/2	2	1/2	8.200-8.200	8.20	0.490	0.490	NA

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	1/2	2	0/2	129.000-129.000	129.00	34.100	34.100	285
THALLIUM	MG/KG	0/2	2	0/2			0.240	0.400	0.49
VANADIUM	MG/KG	2/2	2	1/2	21.900-42.500	32.20			37.8
ZINC	MG/KG	2/2	2	0/2	33.800-66.800	50.30			82.0

000549

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	8320.000-8320.000	8320.00			16100
ANTIMONY	MG/KG	0/1	1	0/1			2.500	2.500	NA
ARSENIC	MG/KG	1/1	1	0/1	4.300-4.300	4.30			9.57
BARIUM	MG/KG	1/1	1	0/1	61.000-61.000	61.00			119
BERYLLIUM	MG/KG	0/1	1	0/1			4.000	4.000	0.620
CADMIUM	MG/KG	0/1	1	0/1			1.100	1.100	0.910
CALCIUM	MG/KG	1/1	1	0/1	133000.000-133000.000	133000.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	13.300-13.300	13.30			20.7
COBALT	MG/KG	1/1	1	0/1	8.800-8.800	8.80			15.7
COPPER	MG/KG	1/1	1	1/1	22.200-22.200	22.20			20.0
CYANIDE	MG/KG	0/1	1	0/1			0.280	0.280	.17
IRON	MG/KG	1/1	1	1/1	33800.000-33800.000	33800.00			30700
LEAD	MG/KG	1/1	1	0/1	9.200-9.200	9.20			15.6
MAGNESIUM	MG/KG	1/1	1	0/1	17900.000-17900.000	17900.00			42600
MANGANESE	MG/KG	1/1	1	0/1	658.000-658.000	658.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			3.900	3.900	2.7
NICKEL	MG/KG	0/1	1	0/1			26.300	26.300	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1360.000-1360.000	1360.00			1980
SELENIUM	MG/KG	0/1	1	0/1			0.230	0.230	NA
SILICON	MG/KG	1/1	1	0/1	372.000-372.000	372.00			1590
SILVER	MG/KG	0/1	1	0/1			0.450	0.450	NA

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
SODIUM	MG/KG	0/1	1	0/1			137.000	137.000	285
THALLIUM	MG/KG	0/1	1	0/1			0.230	0.230	0.49
VANADIUM	MG/KG	1/1	1	0/1	29.300-29.300	29.30			37.8
ZINC	MG/KG	1/1	1	0/1	45.600-45.600	45.60			82.0

001349

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	10100.000-10400.000	10250.00			16100
ARSENIC	MG/KG	2/2	2	0/2	2.000-3.600	2.80			9.57
BARIUM	MG/KG	2/2	2	0/2	60.200-63.700	61.95			119
BERYLLIUM	MG/KG	2/2	2	2/2	0.640-0.680	0.66			0.620
CADMIUM	MG/KG	0/2	2	0/2			1.100	1.200	0.910
CALCIUM	MG/KG	2/2	2	0/2	115000.000-128000.000	121500.00			150000
CHROMIUM	MG/KG	2/2	2	0/2	12.500-14.400	13.45			20.7
COBALT	MG/KG	2/2	2	0/2	7.400-8.100	7.75			15.7
COPPER	MG/KG	2/2	2	0/2	16.800-17.300	17.05			20.0
CYANIDE	MG/KG	0/2	2	0/2			0.110	0.120	.17
IRON	MG/KG	2/2	2	0/2	19000.000-19400.000	19200.00			30700
LEAD	MG/KG	2/2	2	0/2	8.500-8.800	8.65			15.6
MAGNESIUM	MG/KG	2/2	2	0/2	23900.000-33100.000	28500.00			42600
MANGANESE	MG/KG	2/2	2	0/2	437.000-744.000	590.50			1300
MERCURY	MG/KG	0/2	2	0/2			0.110	0.110	0.29
MOLYBDENUM	MG/KG	2/2	2	2/2	5.200-5.700	5.45			2.7
NICKEL	MG/KG	2/2	2	0/2	17.000-19.700	18.35			34.3
POTASSIUM	MG/KG	2/2	2	2/2	2130.000-2320.000	2225.00			1980
SELENIUM	MG/KG	0/2	2	0/2			0.440	0.500	NA
SILVER	MG/KG	2/2	2	2/2	3.900-4.100	4.00			NA
SODIUM	MG/KG	2/2	2	0/2	205.000-252.000	228.50			285
THALLIUM	MG/KG	0/2	2	0/2			0.440	0.500	0.49

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
VANADIUM	MG/KG	2/2	2	0/2	25.400-25.600	25.50			37.8
ZINC	MG/KG	2/2	2	0/2	46.500-49.000	47.75			82.0

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	5590.000-5590.000	5590.00			16100
ARSENIC	MG/KG	1/1	1	0/1	2.800-2.800	2.80			9.57
BARIUM	MG/KG	1/1	1	0/1	56.200-56.200	56.20			119
BERYLLIUM	MG/KG	1/1	1	0/1	0.440-0.440	0.44			0.620
CADMIUM	MG/KG	0/1	1	0/1			1.100	1.100	0.910
CALCIUM	MG/KG	1/1	1	1/1	240000.000-240000.000	240000.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	8.500-8.500	8.50			20.7
COBALT	MG/KG	1/1	1	0/1	3.800-3.800	3.80			15.7
COPPER	MG/KG	1/1	1	0/1	10.800-10.800	10.80			20.0
CYANIDE	MG/KG	0/1	1	0/1			0.110	0.110	.17
IRON	MG/KG	1/1	1	0/1	10900.000-10900.000	10900.00			30700
LEAD	MG/KG	1/1	1	0/1	7.700-7.700	7.70			15.6
MAGNESIUM	MG/KG	1/1	1	0/1	20400.000-20400.000	20400.00			42600
MANGANESE	MG/KG	1/1	1	0/1	378.000-378.000	378.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.100	0.100	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.400	4.400	2.7
NICKEL	MG/KG	1/1	1	0/1	9.500-9.500	9.50			34.3
POTASSIUM	MG/KG	1/1	1	0/1	1480.000-1480.000	1480.00			1980
SELENIUM	MG/KG	0/1	1	0/1			0.430	0.430	NA
SILVER	MG/KG	0/1	1	0/1			2.200	2.200	NA
SODIUM	MG/KG	1/1	1	0/1	227.000-227.000	227.00			285
THALLIUM	MG/KG	0/1	1	0/1			0.430	0.430	0.49

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
VANADIUM	MG/KG	1/1	1	0/1	13.300-13.300	13.30			37.8
ZINC	MG/KG	1/1	1	0/1	26.700-26.700	26.70			82.0

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 15 - 20 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	5840.000-5840.000	5840.00			16100
ARSENIC	MG/KG	1/1	1	0/1	2.800-2.800	2.80			9.57
BARIUM	MG/KG	1/1	1	0/1	53.000-53.000	53.00			119
BERYLLIUM	MG/KG	1/1	1	0/1	0.420-0.420	0.42			0.620
CADMIUM	MG/KG	0/1	1	0/1			1.000	1.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	119000.000-119000.000	119000.00			150000
CHROMIUM	MG/KG	1/1	1	0/1	8.700-8.700	8.70			20.7
COBALT	MG/KG	1/1	1	0/1	4.300-4.300	4.30			15.7
COPPER	MG/KG	1/1	1	0/1	12.400-12.400	12.40			20.0
CYANIDE	MG/KG	0/1	1	0/1			0.120	0.120	.17
IRON	MG/KG	1/1	1	0/1	13000.000-13000.000	13000.00			30700
LEAD	MG/KG	1/1	1	0/1	8.800-8.800	8.80			15.6
MAGNESIUM	MG/KG	1/1	1	0/1	37200.000-37200.000	37200.00			42600
MANGANESE	MG/KG	1/1	1	0/1	367.000-367.000	367.00			1300
MERCURY	MG/KG	0/1	1	0/1			0.110	0.110	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			4.200	4.200	2.7
NICKEL	MG/KG	1/1	1	0/1	10.800-10.800	10.80			34.3
POTASSIUM	MG/KG	1/1	1	0/1	1490.000-1490.000	1490.00			1980
SELENIUM	MG/KG	0/1	1	0/1			0.360	0.360	NA
SILVER	MG/KG	0/1	1	0/1			2.100	2.100	NA
SODIUM	MG/KG	1/1	1	0/1	260.000-260.000	260.00			285
THALLIUM	MG/KG	0/1	1	0/1			0.360	0.360	0.49

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
VANADIUM	MG/KG	1/1	1	0/1	17.000-17.000	17.00			37.8
ZINC	MG/KG	1/1	1	0/1	31.200-31.200	31.20			82.0

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/23	23	0/23			6.000	14.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/23	23	0/23			6.000	14.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/23	23	0/23			6.000	14.000	
1,1-DICHLOROETHANE	UG/KG	0/23	23	0/23			6.000	14.000	
1,1-DICHLOROETHENE	UG/KG	0/23	23	0/23			6.000	14.000	
1,2-DICHLOROETHANE	UG/KG	0/23	23	0/23			6.000	14.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/23	23	0/23			6.000	14.000	
1,2-DICHLOROPROPANE	UG/KG	0/23	23	0/23			6.000	14.000	
2-BUTANONE	UG/KG	0/22	22	0/22			10.000	14.000	
2-HEXANONE	UG/KG	0/22	22	0/22			10.000	14.000	
4-METHYL-2-PENTANONE	UG/KG	0/22	22	0/22			10.000	14.000	
ACETONE	UG/KG	2/23	23	2/23	11.000-12.000	11.50	10.000	52.000	
BENZENE	UG/KG	0/23	23	0/23			6.000	14.000	
BROMODICHLOROMETHANE	UG/KG	0/23	23	0/23			6.000	14.000	
BROMOFORM	UG/KG	0/23	23	0/23			6.000	14.000	
BROMOMETHANE	UG/KG	0/23	23	0/23			10.000	14.000	
CARBON DISULFIDE	UG/KG	0/23	23	0/23			6.000	14.000	
CARBON TETRACHLORIDE	UG/KG	0/23	23	0/23			6.000	14.000	
CHLOROBENZENE	UG/KG	0/23	23	0/23			6.000	14.000	
CHLOROETHANE	UG/KG	0/23	23	0/23			10.000	14.000	
CHLOROFORM	UG/KG	0/23	23	0/23			6.000	14.000	
CHLOROMETHANE	UG/KG	0/23	23	0/23			10.000	14.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/23	23	0/23			6.000	14.000	
DIBROMOCHLOROMETHANE	UG/KG	0/23	23	0/23			6.000	14.000	
ETHYLBENZENE	UG/KG	0/23	23	0/23			6.000	14.000	
METHYLENE CHLORIDE	UG/KG	6/23	23	6/23	4.000-11.000	7.17	10.000	79.000	
STYRENE	UG/KG	0/23	23	0/23			6.000	14.000	
TETRACHLOROETHENE	UG/KG	0/23	23	0/23			6.000	14.000	
TOLUENE	UG/KG	0/23	23	0/23			6.000	14.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/23	23	0/23			6.000	14.000	
TRICHLOROETHENE	UG/KG	0/23	23	0/23			6.000	14.000	
VINYL ACETATE	UG/KG	0/14	14	0/14			10.000	13.000	
VINYL CHLORIDE	UG/KG	0/23	23	0/23			10.000	14.000	
XYLENES, TOTAL	UG/KG	0/23	23	0/23			6.000	14.000	

AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			11.000	12.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/2	2	0/2			11.000	12.000	
BENZENE	UG/KG	0/2	2	0/2			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
BROMOFORM	UG/KG	0/2	2	0/2			11.000	12.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			11.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			12.000	12.000	
STYRENE	UG/KG	0/2	2	0/2			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
TOLUENE	UG/KG	0/2	2	0/2			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			11.000	12.000	

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			10.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			10.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			10.000	12.000	
2-BUTANONE	UG/KG	0/1	1	0/1			10.000	10.000	
2-HEXANONE	UG/KG	0/1	1	0/1			10.000	10.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			10.000	10.000	
ACETONE	UG/KG	0/2	2	0/2			10.000	12.000	
BENZENE	UG/KG	0/2	2	0/2			10.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
BROMOFORM	UG/KG	0/2	2	0/2			10.000	12.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			10.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			10.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			10.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			10.000	12.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			10.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			10.000	12.000	
STYRENE	UG/KG	0/2	2	0/2			10.000	12.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			10.000	12.000	
TOLUENE	UG/KG	0/2	2	0/2			10.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			10.000	12.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			10.000	12.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			10.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			10.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			10.000	12.000	

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			11.000	11.000	
BENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
TOLUENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			11.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			11.000	12.000	
2-BUTANONE	UG/KG	0/2	2	0/2			11.000	12.000	
2-HEXANONE	UG/KG	0/2	2	0/2			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			11.000	12.000	
ACETONE	UG/KG	0/2	2	0/2			11.000	12.000	
BENZENE	UG/KG	0/2	2	0/2			11.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
BROMOFORM	UG/KG	0/2	2	0/2			11.000	12.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			11.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			11.000	12.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			11.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			11.000	12.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			11.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/2	2	0/2			13.000	15.000	
STYRENE	UG/KG	0/2	2	0/2			11.000	12.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
TOLUENE	UG/KG	0/2	2	0/2			11.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			11.000	12.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			11.000	12.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			11.000	12.000	

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/1	1	1/1	3.000-3.000	3.00			
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			11.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			11.000	11.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	1/1	1	1/1	25.000-25.000	25.00			
BENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOFORM	UG/KG	0/1	1	0/1			11.000	11.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	1/1	1	1/1	2.000-2.000	2.00			
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			11.000	11.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			18.000	18.000	
STYRENE	UG/KG	0/1	1	0/1			11.000	11.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
TOLUENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			11.000	11.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			12.000	12.000	
2-BUTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
2-HEXANONE	UG/KG	0/1	1	0/1			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOFORM	UG/KG	0/1	1	0/1			12.000	12.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			18.000	18.000	
STYRENE	UG/KG	0/1	1	0/1			12.000	12.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
TOLUENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	450.000	
1,2-DICHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	450.000	
1,3-DICHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	450.000	
1,4-DICHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	450.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/22	22	0/22			840.000	2100.000	
2,4-DICHLOROPHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
2,4-DIMETHYLPHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
2,4-DINITROPHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
2,4-DINITROTOLUENE	UG/KG	0/22	22	0/22			840.000	2100.000	
2,6-DINITROTOLUENE	UG/KG	0/22	22	0/22			350.000	450.000	
2-CHLORONAPHTHALENE	UG/KG	0/22	22	0/22			350.000	450.000	
2-CHLOROPHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
2-METHYLNAPHTHALENE	UG/KG	0/22	22	0/22			350.000	450.000	
2-METHYLPHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
2-NITROANILINE	UG/KG	0/22	22	0/22			350.000	450.000	
2-NITROPHENOL	UG/KG	0/22	22	0/22			840.000	2100.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/22	22	0/22			350.000	450.000	
3-NITROANILINE	NONE	0/22	22	0/22			350.000	870.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/22	22	0/22			840.000	2100.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/22	22	0/22			840.000	2100.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
							350.000	450.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/22	22	0/22			350.000	450.000	
4-METHYLPHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
4-NITROANILINE	UG/KG	0/22	22	0/22			840.000	2100.000	
4-NITROPHENOL	UG/KG	0/22	22	0/22			840.000	2100.000	
ACENAPHTHENE	UG/KG	0/22	22	0/22			350.000	450.000	
ACENAPHTHYLENE	UG/KG	0/22	22	0/22			350.000	450.000	
ANTHRACENE	UG/KG	2/22	22	2/22	34.000-48.000	41.00	350.000	450.000	
BENZO(A)ANTHRACENE	UG/KG	1/21	21	1/21	51.000-51.000	51.00	350.000	450.000	
BENZO(A)PYRENE	UG/KG	2/22	22	2/22	50.000-50.000	50.00	350.000	450.000	
BENZO(B)FLUORANTHENE	UG/KG	0/22	22	0/22			350.000	450.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/22	22	2/22	31.000-56.000	43.50	350.000	450.000	
BENZO(K)FLUORANTHENE	UG/KG	2/22	22	2/22	59.000-71.000	65.00	860.000	2100.000	
BENZOIC ACID	UG/KG	0/22	22	0/22			350.000	450.000	
BENZYL ALCOHOL	UG/KG	0/22	22	0/22			350.000	450.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/22	22	0/22			350.000	450.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/22	22	0/22			350.000	450.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	3/22	22	3/22	45.000-59.000	52.67	350.000	450.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/22	22	0/22			350.000	450.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			350.000	350.000	
CARBAZOLE	UG/KG	2/22	22	2/22	49.000-59.000	54.00	350.000	450.000	
CHRYSENE	UG/KG	0/22	22	0/22			350.000	2500.000	
DI-N-BUTYL PHTHALATE									

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/22	22	0/22			350.000	450.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/22	22	0/22			350.000	450.000	
DIBENZOFURAN	UG/KG	0/22	22	0/22			350.000	450.000	
DIETHYL PHTHALATE	UG/KG	0/22	22	0/22			350.000	450.000	
DIMETHYL PHTHALATE	UG/KG	0/22	22	0/22			350.000	450.000	
FLUORANTHENE	UG/KG	4/22	22	4/22	46.000-100.000	72.25	350.000	450.000	
FLUORENE	UG/KG	0/22	22	0/22			350.000	450.000	
HEXACHLOROBENZENE	UG/KG	0/22	22	0/22			350.000	450.000	
HEXACHLOROBUTADIENE	UG/KG	0/22	22	0/22			350.000	450.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/22	22	0/22			350.000	450.000	
HEXACHLOROETHANE	UG/KG	0/22	22	0/22			350.000	450.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/22	22	0/22			350.000	450.000	
ISOPHORONE	UG/KG	0/22	22	0/22			350.000	450.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/22	22	0/22			350.000	450.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/22	22	0/22			350.000	450.000	
NAPHTHALENE	UG/KG	0/22	22	0/22			350.000	450.000	
NITROBENZENE	UG/KG	0/22	22	0/22			350.000	450.000	
P-CHLOROANILINE	UG/KG	0/22	22	0/22			350.000	450.000	
PENTACHLOROPHENOL	UG/KG	0/22	22	0/22			840.000	2100.000	
PHENANTHRENE	UG/KG	1/22	22	1/22	41.000-41.000	41.00	350.000	450.000	
PHENOL	UG/KG	0/22	22	0/22			350.000	450.000	
PYRENE	UG/KG	3/22	22	3/22	47.000-94.000	74.33	350.000	450.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			880.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			880.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			360.000	410.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			360.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			360.000	410.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			360.000	410.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			880.000	1000.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			360.000	410.000	
3-NITROANILINE	NONE	0/2	2	0/2			880.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			880.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			360.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			360.000	410.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			880.000	1000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			880.000	1000.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			360.000	410.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			360.000	410.000	
ANTHRACENE	UG/KG	0/2	2	0/2			360.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			360.000	410.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			360.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			360.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			360.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			360.000	410.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			1000.000	1800.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			360.000	410.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			360.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			360.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			360.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/2	2	0/2			360.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	410.000	
CARBAZOLE	UG/KG	0/2	2	0/2			360.000	410.000	
CHRYSENE	UG/KG	0/2	2	0/2			360.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	2100.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			360.000	410.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			360.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			360.000	410.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			360.000	410.000	
FLUORENE	UG/KG	0/2	2	0/2			360.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			360.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			360.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			360.000	410.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			360.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			360.000	410.000	
ISOPHORONE	UG/KG	0/2	2	0/2			360.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			360.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			360.000	410.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			360.000	410.000	
NITROBENZENE	UG/KG	0/2	2	0/2			360.000	410.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			360.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			880.000	1000.000	
PHENOL	UG/KG	0/2	2	0/2			360.000	410.000	
PYRENE	UG/KG	0/2	2	0/2			360.000	410.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			350.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			350.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			350.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			350.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			840.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			840.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			350.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			350.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			350.000	400.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			350.000	400.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			840.000	1000.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			350.000	400.000	
3-NITROANILINE	NONE	0/2	2	0/2			840.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			840.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			350.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			350.000	400.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			840.000	1000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			840.000	1000.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			350.000	400.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			350.000	400.000	
ANTHRACENE	UG/KG	0/2	2	0/2			350.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			350.000	400.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			350.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			350.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			350.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			350.000	400.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			1000.000	1700.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			350.000	400.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			350.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			350.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			350.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/2	2	0/2			350.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			350.000	400.000	
CARBAZOLE	UG/KG	0/2	2	0/2			350.000	400.000	
CHRYSENE	UG/KG	0/2	2	0/2			350.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			350.000	2300.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			350.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			350.000	400.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			350.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			350.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			350.000	400.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			350.000	400.000	
FLUORENE	UG/KG	0/2	2	0/2			350.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			350.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			350.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			350.000	400.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			350.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			350.000	400.000	
ISOPHORONE	UG/KG	0/2	2	0/2			350.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			350.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			350.000	400.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			350.000	400.000	
NITROBENZENE	UG/KG	0/2	2	0/2			350.000	400.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			350.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			840.000	1000.000	
PHENOL	UG/KG	0/2	2	0/2			350.000	400.000	
PYRENE	UG/KG	0/2	2	0/2			350.000	400.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			950.000	950.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			380.000	380.000	
3-NITROANILINE	NONE	0/1	1	0/1			950.000	950.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			950.000	950.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			950.000	950.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			950.000	950.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			2300.000	2300.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			950.000	950.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			910.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			910.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			380.000	420.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			380.000	420.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			910.000	1000.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			380.000	420.000	
3-NITROANILINE	NONE	0/2	2	0/2			910.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			910.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			380.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			380.000	420.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			910.000	1000.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			910.000	1000.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			380.000	420.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			380.000	420.000	
ANTHRACENE	UG/KG	0/2	2	0/2			380.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	420.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			380.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			380.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	420.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			1800.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			380.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			380.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			380.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			380.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/2	2	2/2	740.000-1200.000	970.00			
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	420.000	
CARBAZOLE	UG/KG	0/2	2	0/2			380.000	420.000	
CHRYSENE	UG/KG	0/2	2	0/2			380.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	420.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	420.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			380.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	420.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	420.000	
FLUORENE	UG/KG	0/2	2	0/2			380.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			380.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			380.000	420.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			380.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			380.000	420.000	
ISOPHORONE	UG/KG	0/2	2	0/2			380.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			380.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			380.000	420.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			380.000	420.000	
NITROBENZENE	UG/KG	0/2	2	0/2			380.000	420.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			380.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			910.000	1000.000	
PHENOL	UG/KG	0/2	2	0/2			380.000	420.000	
PYRENE	UG/KG	0/2	2	0/2			380.000	420.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			930.000	930.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			930.000	930.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			930.000	930.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			380.000	380.000	
3-NITROANILINE	NONE	0/1	1	0/1			380.000	380.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			930.000	930.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			930.000	930.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			930.000	930.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			930.000	930.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/1	1	1/1	870.000-870.000	870.00			
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
CARBAZOLE	UG/KG	0/1	1	0/1			380.000	380.000	
CHRYSENE	UG/KG	0/1	1	0/1			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			380.000	380.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			380.000	380.000	
FLUORENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	
ISOPHORONE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			380.000	380.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			380.000	380.000	
NITROBENZENE	UG/KG	0/1	1	0/1			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			930.000	930.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			380.000	380.000	
PHENOL	UG/KG	0/1	1	0/1			380.000	380.000	
PYRENE	UG/KG	0/1	1	0/1			380.000	380.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			400.000	400.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			980.000	980.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			400.000	400.000	
3-NITROANILINE	NONE	0/1	1	0/1			980.000	980.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			980.000	980.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			980.000	980.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			400.000	400.000	
ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			400.000	400.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			2000.000	2000.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			400.000	400.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
CARBAZOLE	UG/KG	0/1	1	0/1			400.000	400.000	
CHRYSENE	UG/KG	0/1	1	0/1			400.000	400.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			400.000	400.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			400.000	400.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			400.000	400.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			400.000	400.000	
FLUORENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			400.000	400.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			400.000	400.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	
ISOPHORONE	UG/KG	0/1	1	0/1			400.000	400.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			400.000	400.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			400.000	400.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			400.000	400.000	
NITROBENZENE	UG/KG	0/1	1	0/1			400.000	400.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			400.000	400.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			980.000	980.000	
PHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
PYRENE	UG/KG	0/1	1	0/1			400.000	400.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/22	22	0/22			3.400	21.000	
4,4'-DDE	UG/KG	0/22	22	0/22			3.400	21.000	
4,4'-DDT	UG/KG	0/22	22	0/22			3.400	21.000	
ALDRIN	UG/KG	0/22	22	0/22			1.800	11.000	
ALPHA-BHC	UG/KG	0/22	22	0/22			1.800	11.000	
ALPHA-CHLORDANE	UG/KG	0/22	22	0/22			1.800	110.000	
AROCLOR-1016	UG/KG	0/22	22	0/22			34.000	110.000	
AROCLOR-1221	UG/KG	0/22	22	0/22			70.000	110.000	
AROCLOR-1232	UG/KG	0/22	22	0/22			34.000	110.000	
AROCLOR-1242	UG/KG	0/22	22	0/22			34.000	110.000	
AROCLOR-1248	UG/KG	0/22	22	0/22			34.000	110.000	
AROCLOR-1254	UG/KG	0/22	22	0/22			34.000	210.000	
AROCLOR-1260	UG/KG	0/22	22	0/22			34.000	210.000	
BETA-BHC	UG/KG	0/22	22	0/22			1.800	11.000	
DELTA-BHC	UG/KG	0/22	22	0/22			1.800	11.000	
DIELDRIN	UG/KG	0/22	22	0/22			3.400	21.000	
ENDOSULFAN II	UG/KG	0/22	22	0/22			3.400	21.000	
ENDOSULFAN SULFATE	UG/KG	0/22	22	0/22			3.400	21.000	
ENDOSULFAN-I	UG/KG	0/22	22	0/22			1.800	11.000	
ENDRIN	UG/KG	0/22	22	0/22			3.400	21.000	
ENDRIN ALDEHYDE	UG/KG	1/16	16	1/16	15.000-15.000	15.00	3.400	4.300	
ENDRIN KETONE	UG/KG	0/22	22	0/22			3.400	21.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/22	22	0/22			1.800	11.000	
GAMMA-CHLORDANE	UG/KG	0/22	22	0/22			1.800	110.000	
HEPTACHLOR	UG/KG	0/22	22	0/22			1.800	11.000	
HEPTACHLOR EPOXIDE	UG/KG	0/22	22	0/22			1.800	11.000	
METHOXYCHLOR	UG/KG	0/22	22	0/22			18.000	110.000	
TOXAPHENE	UG/KG	0/22	22	0/22			180.000	220.000	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.700	4.100	
4,4'-DDE	UG/KG	0/2	2	0/2			3.700	4.100	
4,4'-DDT	UG/KG	0/2	2	0/2			3.700	4.100	
ALDRIN	UG/KG	0/2	2	0/2			1.900	2.100	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.900	2.100	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	2.100	
AROCLOR-1016	UG/KG	0/2	2	0/2			37.000	41.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			74.000	84.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			37.000	41.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			37.000	41.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			37.000	41.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			37.000	41.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			37.000	41.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.900	2.100	
DELTA-BHC	UG/KG	0/2	2	0/2			1.900	2.100	
DIELDRIN	UG/KG	0/2	2	0/2			3.700	4.100	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.700	4.100	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.700	4.100	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.900	2.100	
ENDRIN	UG/KG	0/2	2	0/2			3.700	4.100	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.700	4.100	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.700	4.100	

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AREA: Northeastern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.900	2.100	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.900	2.100	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.900	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.900	2.100	
METHOXYCHLOR	UG/KG	0/2	2	0/2			19.000	21.000	
TOXAPHENE	UG/KG	0/2	2	0/2			190.000	210.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.400	4.000	
4,4'-DDE	UG/KG	0/2	2	0/2			3.400	4.000	
4,4'-DDT	UG/KG	0/2	2	0/2			3.400	4.000	
ALDRIN	UG/KG	0/2	2	0/2			1.800	2.100	
ALPHA-BHC	UG/KG	0/2	2	0/2			1.800	2.100	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	2.100	
AROCLOR-1016	UG/KG	0/2	2	0/2			34.000	40.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			69.000	82.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			34.000	40.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			34.000	40.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			34.000	40.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			34.000	40.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			34.000	40.000	
BETA-BHC	UG/KG	0/2	2	0/2			1.800	2.100	
DELTA-BHC	UG/KG	0/2	2	0/2			1.800	2.100	
DIELDRIN	UG/KG	0/2	2	0/2			3.400	4.000	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.400	4.000	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.400	4.000	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			1.800	2.100	
ENDRIN	UG/KG	0/2	2	0/2			3.400	4.000	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.400	4.000	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.400	4.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			1.800	2.100	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			1.800	2.100	
HEPTACHLOR	UG/KG	0/2	2	0/2			1.800	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			1.800	2.100	
METHOXYCHLOR	UG/KG	0/2	2	0/2			18.000	21.000	
TOXAPHENE	UG/KG	0/2	2	0/2			180.000	210.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.800	3.800	
ALDRIN	UG/KG	0/1	1	0/1			1.900	1.900	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	1.900	
AROCLOR-1016	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			76.000	76.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			1.900	1.900	
BETA-BHC	UG/KG	0/1	1	0/1			1.900	1.900	
DELTA-BHC	UG/KG	0/1	1	0/1			3.800	3.800	
DIELDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			1.900	1.900	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.800	3.800	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.900	1.900	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	1.900	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.900	1.900	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.900	1.900	
METHOXYCHLOR	UG/KG	0/1	1	0/1			19.000	19.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	190.000	

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AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/2	2	0/2			3.800	4.200	
4,4'-DDE	UG/KG	0/2	2	0/2			3.800	4.200	
4,4'-DDT	UG/KG	0/2	2	0/2			3.800	4.200	
ALDRIN	UG/KG	0/2	2	0/2			2.000	2.100	
ALPHA-BHC	UG/KG	0/2	2	0/2			2.000	2.100	
ALPHA-CHLORDANE	UG/KG	0/2	2	0/2			2.000	2.100	
AROCLOR-1016	UG/KG	0/2	2	0/2			38.000	42.000	
AROCLOR-1221	UG/KG	0/2	2	0/2			78.000	84.000	
AROCLOR-1232	UG/KG	0/2	2	0/2			38.000	42.000	
AROCLOR-1242	UG/KG	0/2	2	0/2			38.000	42.000	
AROCLOR-1248	UG/KG	0/2	2	0/2			38.000	42.000	
AROCLOR-1254	UG/KG	0/2	2	0/2			38.000	42.000	
AROCLOR-1260	UG/KG	0/2	2	0/2			38.000	42.000	
BETA-BHC	UG/KG	0/2	2	0/2			2.000	2.100	
DELTA-BHC	UG/KG	0/2	2	0/2			2.000	2.100	
DIELDRIN	UG/KG	0/2	2	0/2			3.800	4.200	
ENDOSULFAN II	UG/KG	0/2	2	0/2			3.800	4.200	
ENDOSULFAN SULFATE	UG/KG	0/2	2	0/2			3.800	4.200	
ENDOSULFAN-I	UG/KG	0/2	2	0/2			2.000	2.100	
ENDRIN	UG/KG	0/2	2	0/2			3.800	4.200	
ENDRIN ALDEHYDE	UG/KG	0/2	2	0/2			3.800	4.200	
ENDRIN KETONE	UG/KG	0/2	2	0/2			3.800	4.200	

001399

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/2	2	0/2			2.000	2.100	
GAMMA-CHLORDANE	UG/KG	0/2	2	0/2			2.000	2.100	
HEPTACHLOR	UG/KG	0/2	2	0/2			2.000	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/2	2	0/2			2.000	2.100	
METHOXYCHLOR	UG/KG	0/2	2	0/2			20.000	21.000	
TOXAPHENE	UG/KG	0/2	2	0/2			200.000	210.000	

001400

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.800	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.800	3.800	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			77.000	77.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			38.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			2.000	2.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			3.800	3.800	
DIELDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.800	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			2.000	2.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.800	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.800	3.800	

001401

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

001402

05/26/94

6 6 9 5

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			4.000	4.000	
4,4'-DDE	UG/KG	0/1	1	0/1			4.000	4.000	
4,4'-DDT	UG/KG	0/1	1	0/1			4.000	4.000	
ALDRIN	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			81.000	81.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			40.000	40.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			40.000	40.000	
BETA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			2.000	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			2.000	2.000	
ENDRIN	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			4.000	4.000	

05/26/94

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			2.000	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			2.000	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			2.000	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			20.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			200.000	200.000	

001404

05/26/94

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY									
DEPTH: 3 - 5 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	6011.000-6011.000	6011.00			

001405

05/26/94

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 5 - 10 FEET									
TOTAL ORGANIC CARBON	MG/KG	2/2	2	2/2	3444.000-3724.000	3584.00			

001406

05/26/94

5699

AREA: Northeastern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 15 - 20 FEET									
TOTAL ORGANIC CARBON	MG/KG	2/2	2	2/2	1735.000-7121.000	4428.00			

001407

05/26/94

D.2.27 SOUTHERN AREA OF FEMP

The southern area of the FEMP property consists mainly of open, grass-covered fields and pine woodlots. The area is located south of the production area. However, the trap range, Southwest Field area and the Operable Unit 2 flyash pile, inactive flyash pile, and southfield are located within the overall boundary of the area but excluded from this discussion. Access roads to these disposal areas pass through the Southern Area. There were no known disposal activities conducted in this area of the FEMP. More than 110 soil sample locations, mainly for surface soil samples, were collected from this area under the CIS, litigation study, the site-wide RI/FS Work Plan and the RI/FS Work Plan Addendum investigations.

Surface Soil

Surface soil sampling locations in the southern area of the FEMP property are shown in Figure D.2-31. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was elevated above background in the area. Table D.2-27 presents the distribution of constituents with respect to background for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

The most significant radionuclide contamination in the surface soil of the southern area of the FEMP, as observed in a majority of 70 surface soil sampling locations, is mainly attributable to the presence of uranium and thorium isotopes. Elevated uranium levels were present in approximately 50 samples collected from the surface depth intervals throughout the area. As represented by levels of total uranium, elevated uranium activities were primarily detected at sampling locations in the area immediately south of the laboratory and pilot plant, in the vicinity of the OU2 area, and at scattered locations in the eastern half of the area. Concentrations of total uranium that were observed in the surface soil depth intervals ranged from 1.50 mg/kg to 443.58 mg/kg. The majority of the surface samples were collected in the 0- to 0.5-foot depth interval. Less than half of the samples that had elevated levels of uranium showed concentrations of total uranium in excess of 18 mg/kg, which represents approximately five times the background level for total uranium. Only a few locations exhibited highly elevated concentration of total uranium (50 mg/kg or higher), including Boring 1270, 500318/SS-34, CIS_SYSGEN_3, _5, and _7, and Zone 3-41. These sampling locations are located immediately south of the former production area and the Active Flyash Pile in the OU2 area.

Radiological results in the boring locations indicated that in general the levels of radionuclides decrease significantly as the depths increase.

Elevated levels of thorium isotopes and total thorium were also found in the same general areas as the elevated uranium, but at much fewer locations and relatively lower levels. Concentrations of total thorium in the surface soil ranged from 1.64 mg/kg to 54.72 mg/kg, with a few detections exceeding background (12.4 mg/kg). The high levels of thorium isotopes and total thorium in the 0- to 0.5-foot and 0.5- to 1.0-foot depth intervals were detected at sampling locations located immediately south of the active flyash pile in the OU2 area. The highest levels of thorium isotopes were present in the 0- to 0.5-foot depth of soil and decreased to below background at the 1.0- to 1.5-foot depth. The elevated levels of thorium isotopes and total uranium in the 1.0- to 1.5-foot depth interval were only obtained at Boring 3068, located south of the parking lot area.

The maximum activity of radium-226, 10.8 pCi/g, was detected at sampling location CIS_SYSGEN_5 in the 0- to 0.5-foot depth. Elevated activities of strontium-90 were found sporadically in 22 of the 0- to 0.5-foot depth surface soil samples collected from this area. The highest detection of strontium-90 activity throughout the surface soil depths was 4.10 pCi/g in the 0- to 0.5-foot depth at sampling location Zone 3-44. The lone detection of strontium-90 activity in the 0.0- to 1.0-foot and 1.0- to 1.5-foot depths was 0.7 pCi/g in a sample collected in the interval of 0- to 1.5-foot at Boring 3068. Activities of plutonium-239/240, and technetium-99 were all detected at relatively low levels in a few samples within the 0- to 0.5-foot depth interval only, but no background levels were recorded. In addition, slightly elevated activities of cesium-137 were present in five samples in the 0- to 0.5-foot depth and one sample in the 1.0- to 1.5-foot depth. No activities of plutonium-238 or ruthenium-106 were detected in all surface soil depth intervals.

Only the 0- to 0.5-foot depth interval was analyzed for inorganic constituents. Those inorganics to show significantly elevated concentrations at this depth were beryllium, cadmium, calcium, cyanide, lead, magnesium, and sodium. Molybdenum and silver were detected, but no background levels were recorded. These elevated detections were primarily observed in the vicinity of the OU2 area.

As with the inorganic data, only the top 6 inches of soil were analyzed for volatile organic and semivolatile organic compounds. The only volatile organics that were detected in three samples out of 20 samples collected in the 0- to 0.5-foot depth interval include 2-butanone, acetone,

chlorobenzene, tetrachloroethene, toluene, and trichloroethene. The detected concentrations of volatile organics ranged from 2 μg/kg to 22 μg/kg.

Eighteen semivolatile organic compounds were detected in the surface soil samples in this area, most of which are common PAH compounds. These detections were obtained in a maximum of 5 samples out of 21 samples analyzed and the ranges were 7 μg/kg to 700 μg/kg. No pesticides or PCBs were detected in the surface soil of the southern area of the FEMP.

Subsurface Soil

The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-27 presents the distribution of constituents with respect to background for each sample depth interval.

Similar to the surface soil, the radiological contamination in the subsurface soil primarily consisted of uranium and thorium isotopes. The levels of these isotopes were relatively low and, except for total uranium, most of the detections were only slightly above background. A maximum of seven out of 26 samples collected from the subsurface intervals, primarily near the Operable Unit 2 study area, had concentrations of total uranium above background. Note that the maximum levels of total uranium reported in the subsurface soil depth intervals were mostly at 11 mg/kg, which is more than two times background. However, this level was also frequently used as the detection limit for samples in the same sampling program.

As indicated in Table D.2-27, higher activities of radionuclides were detected in the 15- to 20-foot depth than other depths in this area. These high levels were detected in two samples, however, and the others were at or near background levels. The maximum levels of uranium isotopes (e.g., 1.93 pCi/g uranium-238 and 2.52 pCi/g uranium-234) and thorium isotopes (e.g., 3.01 pCi/g thorium-230, 5.59 pCi/g thorium-232, and 5.92 pCi/g thorium-228, and 50.5 mg/kg total thorium) were detected at Boring 2390 in the 12- to 13.5-foot sample interval, and at Boring 21193 in the 11- to 11.5-foot sample interval, respectively. These sampling locations are situated within short distances south of the Operable Unit 2 area.

Activities of strontium-90 and plutonium-238 were detected in up to three samples collected from the 10- to 15-foot and 15- to 20-foot depths. These detections were relatively low and seemed at or near the detection limits, except for one detection of strontium-90 at 1.01 pCi/g at Boring 2384 (located next to Paddys Run Road at the northwestern corner of this area). Plutonium-238 was detected at 0.60 pCi/g in a sample collected in the 12- to 12.5-foot interval from Boring 21192, which is located immediately south of the OU2 area.

Note that a few samples out of a maximum of 26 samples that were collected from depth intervals below 20 feet also had elevated activities of radionuclides. The following table summarizes the elevated levels of radionuclides in deep intervals of these sampling locations:

Boring 2384 @ 30- to 30.5-foot (located in northwestern corner of this area)	Uranium-238: 7.45 pCi/g Uranium-234: 7.22 pCi.g Uranium-235/236: 1.26 pCi/g Strontium-90: 0.93 pCi/g
Boring 2390 @ 50- to 51.5-foot (located approximately 600 feet south of OU2 area)	Uranium-total: 9.20 mg/kg
Boring 2733 @ 28- to 28.5-foot (located near southeastern corner of this area)	Uranium-238: 3.07 pCi/g Uranium-234: 2.70 pCi/g Thorium-232: 6.98 pCi/g Thorium-total: 63.00 mg/kg Thorium-228: 9.17 pCi/g
Boring 3065 @ 75- to 76.5-foot (located approximately 400 feet east of OU2 area)	Strontium-90: 1.90 pCi/g
Boring 3070 @ 25.5- to 27-foot (located near the intersection of Willey Road and South Access Road)	Thorium-230: 12.30 pCi/g

No analyses were conducted for inorganic constituents on the subsurface soil samples collected from the southern area of the FEMP. No volatile organics, semivolatile organics, pesticides, or PCBs were detected in the subsurface soil in this area.

Conclusions

The majority of the radiological and chemical contamination in this area is present in the surface soil depth intervals, primarily in areas immediately south of the laboratory and pilot plant and south of the active flyash pile in OU2. Uranium isotopes and total uranium were the primary radiological contaminants in this area. Only a few locations exhibited highly elevated concentration of total uranium (50 mg/kg or higher). In addition, a few inorganic analytes were detected at elevated levels in samples collected from the vicinity of the OU2 area. Radiological results in the boring locations throughout the area indicated that in general the levels of radionuclides decrease significantly as the depths increase.

The sources of contamination in the surface soil are likely airborne deposition during the operational periods in the former production area and the flyash disposal areas in the OU2 area. Spills or releases during flyash disposal may be the sources for highly elevated levels of uranium and thorium activities that were observed in the lower depth intervals in the surface soil. The sources of contamination in the subsurface soil, especially in the depth below the perched groundwater table, are unknown. Possible sources for the elevated levels are vertical migration of contaminated perched water, cross-contamination of the sample(s), laboratory error, or mislabeling of samples. This pathway of contaminants is supported by some detections of elevated activities of radionuclides in the subsurface soil at depths below 20 feet.

TABLE D.2-27
SOUTHERN AREA OF FEMP
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.166	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	53	■	■	■	■	□	■	▒	▒	●	▒	-	X	-	■	X	X	●
0.5 - 1	2	■	■	■	■	□	■	▒	▒		▒		-	-	-	-		
1 - 1.5	4	■	■	■	●	○	-	○	○	○	●	-	-	-	●	-	-	●
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	3	●	▒	●	●	○	-	○	●	○	○	-	-	-	-	-	-	-
3 - 5	7	●	▒	●	●	○	-	○	●	○	●	-	-	-	-	-	-	-
5-10	16	●	▒	●	●	○	-	○	●	○	●	-	-	-	-	-	-	-
10 - 15	13	●	▒	■	●	○	-	▒	▒	○	▒	-	-	X	▒	-	-	-
15 - 20	9	●	▒	○	○	○	-	○	○	○	●	-	-	-	●	-	-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	61.1	0.58	30.4	69.6
0 - 0.5	20	●	X	●	●	▒	▒	■	●	○	●	▒	●	▒	■	○	-	X	●	●	●	○	X	▒	-	○	●
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	16.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1690	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5-10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

□ "Blank" - Not analyzed.

[-] Analyzed and not detected.

[○] Detection less than 95 percentile background value.

[●] Detection above but < 2X of 95 percentile background value.

[▒] Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

[X] Detection where background level not recorded.

TABLE D.2-27
(Continued)

	VOLATILES (ug/kg)							SEMIVOLATILES (ug/kg)																		
Depth Interval, Feet	Number of Samples	2-Butanone	Acetone	Chlorobenzene	Tetrachloroethene	Toluene	Trichloroethene	Number of Samples	2-Methylphenol	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Carbazole	Chrysene	Diethylphthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Ideno(1,2,3-cd)pyrene	Phenanthrene	Phenol	Pyrene
Surface Soil:																										
0 - 0.5	20	X	X	X	X	X	X	20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
0.5 - 1	0							0																		
1 - 1.5	0							0																		
Subsurface Soil:																										
1.5 - 3	0							0																		
3 - 5	0							0																		
5-10	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
10 - 15	0							0																		
15 - 20	0							0																		

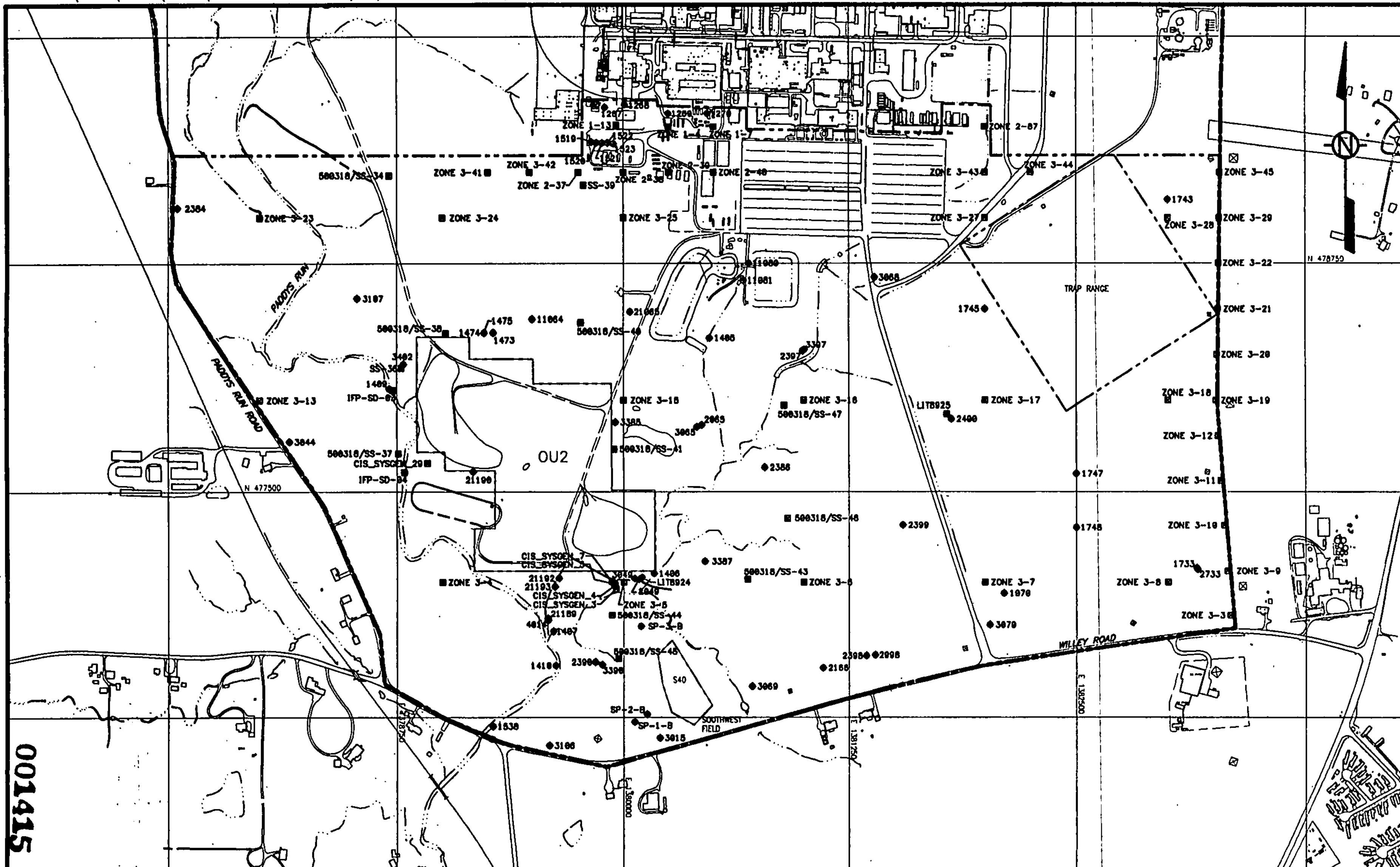
"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

001414

ACAD: W:\DATA\CADD\4P94\94051008.DWG 6/10/94 MLS STATE PLANAR COORDINATE SYSTEM 1927



LEGEND:

⊠3-7 SURFACE SOIL SAMPLING LOCATION

⊕3387 SOIL BORING LOCATION

▬ ▪ ▬ ▪ ▬ BOUNDARY OF AREA OF INTEREST

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SCALE

0 800 1,600 FEET

FIGURE D.2-31. SOUTHERN AREA OF FEMP

569c

Southern Area of FEMP

Summary Soil Statistics

AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	60/61	48	53/61	0.300-22.119	5.51	6.800	6.800	1.24
URANIUM, TOTAL	MG/KG	67/70	47	63/70	1.500-66.293	19.57	2.000	11.000	3.73
URANIUM-234	PCI/G	53/53	48	42/53	0.200-20.789	4.85			1.24
THORIUM-230	PCI/G	51/51	49	10/51	0.630-52.232	2.51			1.97
RADIUM-226	PCI/G	48/55	46	8/55	0.300-10.800	1.71	0.400	0.500	1.42
URANIUM-235/236	PCI/G	10/53	48	10/53	0.370-0.900	0.68	0.100	0.600	0.156
THORIUM-232	PCI/G	51/59	49	5/59	0.180-6.000	0.98	0.200	5.500	1.36
THORIUM, TOTAL	MG/KG	61/66	10	11/66	1.642-54.720	11.12	5.472	23.000	12.4
RADIUM-228	PCI/G	37/46	46	2/46	0.590-1.320	0.93	0.500	1.000	1.25
THORIUM-228	PCI/G	49/51	50	6/51	0.256-2.490	1.01	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/37	37	0/37			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	2/48	48	2/48	0.500-0.600	0.55	0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/48	48	0/48			0.200	0.600	NA
STRONTIUM-90	PCI/G	22/48	48	22/48	0.700-4.100	1.57	0.500	1.700	0.424
TECHNETIUM-99	PCI/G	1/46	45	1/46	1.300-1.300	1.30	1.000	1.300	NA
RUTHENIUM-106	PCI/G	0/46	39	0/46			1.000	10.200	NA
CESIUM-137	PCI/G	37/55	46	5/55	0.230-1.300	0.54	0.200	1.600	0.711
GROSS ALPHA	PCI/G	15/16	3	15/16	5.100-27.900	14.43	7.100	7.100	
GROSS BETA	PCI/G	16/16	3	16/16	13.000-52.100	26.91			

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	2/3	1	2/3	7.600-148.469	78.03	29.500	29.500	1.24
URANIUM, TOTAL	MG/KG	4/4	2	4/4	6.000-443.580	140.04			3.73
URANIUM-234	PCI/G	1/1	1	1/1	34.899-34.899	34.90			1.24
THORIUM-230	PCI/G	1/1	1	1/1	14.835-14.835	14.84			1.97
URANIUM-235/236	PCI/G	1/1	1	1/1	2.455-2.455	2.46			0.156
THORIUM-232	PCI/G	2/3	1	1/3	0.500-1.368	0.93	0.300	0.300	1.36
THORIUM, TOTAL	MG/KG	3/3	1	1/3	2.736-12.473	6.59			12.4
THORIUM-228	PCI/G	1/1	1	1/1	3.292-3.292	3.29			1.43
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.200	0.200	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.207	0.207	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/1	1	0/1			1.400	1.400	NA

AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	2/3	3	2/3	6.300-10.500	8.40	0.600	0.600	1.24
URANIUM, TOTAL	MG/KG	4/4	4	3/4	1.530-31.569	15.41			3.73
URANIUM-234	PCI/G	2/3	3	2/3	5.000-8.500	6.75	0.600	0.600	1.24
THORIUM-230	PCI/G	4/4	4	2/4	0.692-2.700	1.73			1.97
RADIUM-226	PCI/G	3/4	4	0/4	0.670-1.400	1.10	0.500	0.500	1.42
URANIUM-235/236	PCI/G	0/3	3	0/3			0.600	0.600	0.156
THORIUM-232	PCI/G	2/4	4	0/4	1.000-1.100	1.05	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	4/4	3	0/4	1.690-10.032	6.49			12.4
RADIUM-228	PCI/G	2/4	4	0/4	1.080-1.100	1.09	0.600	0.800	1.25
THORIUM-228	PCI/G	3/4	4	1/4	0.900-1.700	1.20	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/4	4	1/4	0.700-0.700	0.70	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.100	NA
CESIUM-137	PCI/G	1/4	4	1/4	0.800-0.800	0.80	0.200	0.200	0.711

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	2/3	3	1/3	0.842-1.400	1.12	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	7/11	6	5/11	2.100-11.000	5.52	11.000	11.000	3.69
URANIUM-234	PCI/G	2/3	3	1/3	0.984-1.400	1.19	0.600	0.600	1.04
THORIUM-230	PCI/G	3/3	3	1/3	0.812-2.000	1.22			1.91
RADIUM-226	PCI/G	1/1	1	0/1	1.000-1.000	1.00			1.47
URANIUM-235/236	PCI/G	0/3	3	0/3			0.600	0.600	0.150
THORIUM-232	PCI/G	1/3	3	0/3	0.800-0.800	0.80	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	4/8	2	1/8	2.110-18.000	8.10	18.000	23.000	11.1
RADIUM-228	PCI/G	1/1	1	0/1	0.900-0.900	0.90			1.31
THORIUM-228	PCI/G	1/3	3	0/3	0.800-0.800	0.80	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/3	3	0/3			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/1	1	0/1			1.000	1.000	NA
CESIUM-137	PCI/G	0/1	1	0/1			0.200	0.200	NA

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	3/7	7	3/7	1.860-2.100	1.95	0.600	1.200	1.12
URANIUM, TOTAL	MG/KG	10/12	10	7/12	1.800-11.000	5.84	1.750	11.000	3.69
URANIUM-234	PCI/G	3/7	7	3/7	1.680-1.850	1.77	0.600	1.200	1.04
THORIUM-230	PCI/G	5/7	7	1/7	0.606-2.840	1.37	0.600	0.787	1.91
RADIUM-226	PCI/G	1/4	4	0/4	1.220-1.220	1.22	0.300	0.537	1.47
URANIUM-235/236	PCI/G	0/7	7	0/7			0.600	1.200	0.150
THORIUM-232	PCI/G	3/7	7	0/7	0.883-0.921	0.91	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	6/9	7	1/9	1.800-18.000	8.22	2.120	23.000	11.1
RADIUM-228	PCI/G	3/4	4	0/4	0.645-1.070	0.93	0.500	0.500	1.31
THORIUM-228	PCI/G	3/7	7	1/7	1.060-1.470	1.20	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/7	7	0/7			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/4	4	0/4			0.500	0.700	.438
TECHNETIUM-99	PCI/G	0/7	7	0/7			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	4	0/4			0.200	0.200	NA

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	16/18	18	1/18	0.600-1.380	0.86	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	16/22	15	4/22	1.000-11.000	3.84	3.000	11.000	3.69
URANIUM-234	PCI/G	13/18	18	4/18	0.618-2.000	1.01	0.600	0.600	1.04
THORIUM-230	PCI/G	16/18	18	1/18	0.606-2.160	1.17	0.600	0.600	1.91
RADIUM-226	PCI/G	10/10	10	0/10	0.390-1.200	0.73			1.47
URANIUM-235/236	PCI/G	0/18	18	0/18			0.600	0.600	0.150
THORIUM-232	PCI/G	7/18	18	0/18	0.623-1.080	0.85	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	19/25	16	2/25	2.780-18.000	6.96	5.472	23.000	11.1
RADIUM-228	PCI/G	4/10	10	0/10	0.700-1.190	0.94	0.500	0.700	1.31
THORIUM-228	PCI/G	12/18	18	1/18	0.642-1.530	0.95	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/18	18	0/18			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/18	18	0/18			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/18	18	0/18			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/12	12	0/12			0.500	0.600	.436
TECHNETIUM-99	PCI/G	0/17	17	0/17			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/10	10	0/10			1.000	1.000	NA
CESIUM-137	PCI/G	0/10	10	0/10			0.200	0.200	NA

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	7/10	10	4/10	0.700-1.930	1.16	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	13/20	14	6/20	1.440-11.000	4.57	1.800	12.000	3.69
URANIUM-234	PCI/G	7/9	9	3/9	0.700-2.520	1.18	0.600	0.600	1.04
THORIUM-230	PCI/G	10/14	14	4/14	0.863-3.010	1.66	0.600	0.600	1.91
RADIUM-226	PCI/G	10/12	12	0/12	0.410-0.880	0.60	0.300	0.500	1.47
URANIUM-235/236	PCI/G	0/10	10	0/10			0.300	0.600	0.150
THORIUM-232	PCI/G	6/14	14	1/14	0.621-5.590	1.57	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	15/21	11	3/21	1.260-50.500	9.92	1.700	23.000	11.1
RADIUM-228	PCI/G	4/12	12	0/12	0.650-0.900	0.78	0.500	1.200	1.31
THORIUM-228	PCI/G	6/14	14	1/14	0.600-5.920	1.63	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/14	14	0/14			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/14	14	0/14			0.600	0.600	NA
PLUTONIUM-238	PCI/G	1/14	14	1/14	0.600-0.600	0.60	0.600	0.600	NA
STRONTIUM-90	PCI/G	3/12	12	3/12	0.600-1.010	0.78	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/14	14	0/14			1.000	2.600	NA
RUTHENIUM-106	PCI/G	0/12	12	0/12			1.000	2.100	NA
CESIUM-137	PCI/G	0/12	12	0/12			0.200	0.200	NA

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	3/6	6	1/6	0.625-1.260	0.87	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	8/14	11	3/14	1.540-16.000	4.20	2.400	11.000	3.69
URANIUM-234	PCI/G	1/5	5	0/5	0.709-0.709	0.71	0.600	0.600	1.04
THORIUM-230	PCI/G	7/10	10	0/10	0.863-1.130	0.98	0.600	0.600	1.91
RADIUM-226	PCI/G	7/7	7	0/7	0.430-0.870	0.60			1.47
URANIUM-235/236	PCI/G	0/6	6	0/6			0.300	0.600	0.150
THORIUM-232	PCI/G	1/10	10	0/10	0.628-0.628	0.63	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	9/13	10	0/13	2.610-5.670	4.31	1.700	23.000	11.1
RADIUM-228	PCI/G	3/7	7	0/7	0.580-0.780	0.70	0.500	0.500	1.31
THORIUM-228	PCI/G	4/10	10	1/10	0.620-1.930	1.01	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/9	9	0/9			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/9	9	0/9			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/9	9	0/9			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/9	9	1/9	0.800-0.800	0.80	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/10	10	0/10			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/7	7	0/7			1.000	1.000	NA
CESIUM-137	PCI/G	0/7	7	0/7			0.200	0.200	NA

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	10/24	23	2/24	0.600-7.450	1.66	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	14/26	24	3/26	1.000-9.200	2.86	1.000	11.000	3.69
URANIUM-234	PCI/G	9/24	23	3/24	0.600-7.220	1.68	0.600	0.600	1.04
THORIUM-230	PCI/G	17/25	24	2/25	0.600-12.300	1.80	0.600	0.600	1.91
RADIUM-226	PCI/G	18/20	19	0/20	0.300-0.800	0.54	0.300	0.300	1.47
URANIUM-235/236	PCI/G	1/24	23	1/24	1.260-1.260	1.26	0.600	0.600	0.150
THORIUM-232	PCI/G	3/25	24	1/25	0.652-6.980	2.78	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	9/26	23	1/26	2.010-63.000	10.67	5.472	18.000	11.1
RADIUM-228	PCI/G	5/20	19	0/20	0.550-0.800	0.62	0.500	0.500	1.31
THORIUM-228	PCI/G	5/25	24	3/25	0.700-9.170	4.01	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/23	22	0/23			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/25	24	0/25			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/25	24	0/25			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/23	22	2/23	0.930-1.900	1.42	0.500	0.700	.436
TECHNETIUM-99	PCI/G	0/23	21	0/23			1.000	2.900	NA
RUTHENIUM-106	PCI/G	0/20	19	0/20			1.000	1.000	NA
CESIUM-137	PCI/G	0/20	19	0/20			0.200	0.200	NA
GROSS ALPHA	PCI/G	2/2	2	2/2	10.100-14.900	12.50			
GROSS BETA	PCI/G	2/2	2	2/2	14.000-14.900	14.45			

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	21/21	21	1/21	1580.000-12300.000	6791.91			11900
ANTIMONY	MG/KG	1/19	19	1/19	10.600-10.600	10.60	0.450	7.600	NA
ARSENIC	MG/KG	20/21	21	1/21	1.500-8.700	4.80	3.100	3.100	8.20
BARIUM	MG/KG	21/21	21	2/21	17.100-109.000	58.94			95.7
BERYLLIUM	MG/KG	3/21	21	2/21	0.540-1.700	1.21	0.240	1.300	0.6
CADMIUM	MG/KG	2/21	21	2/21	1.300-2.800	2.05	0.480	1.300	0.870
CALCIUM	MG/KG	17/21	21	12/21	1010.000-191000.000	45198.24	1200.000	2390.000	4340
CHROMIUM	MG/KG	21/21	21	2/21	3.700-17.700	9.74			15.5
COBALT	MG/KG	21/21	21	0/21	1.800-11.800	8.13			14.2
COPPER	MG/KG	20/21	21	6/21	5.000-18.000	11.20	5.500	5.500	14.1
CYANIDE	MG/KG	10/21	21	10/21	0.280-0.910	0.43	0.120	0.310	0.270
IRON	MG/KG	21/21	21	1/21	4260.000-22300.000	13297.14			21700
LEAD	MG/KG	11/11	11	1/11	5.000-61.500	19.54			26.4
MAGNESIUM	MG/KG	21/21	21	12/21	1090.000-29800.000	8409.05			2780
MANGANESE	MG/KG	18/18	18	0/18	253.000-1350.000	623.72			1350
MERCURY	MG/KG	0/21	21	0/21			0.060	0.130	0.3
MOLYBDENUM	MG/KG	5/21	21	5/21	6.500-8.200	7.58	0.910	5.200	NA
NICKEL	MG/KG	19/21	21	1/21	4.400-21.000	12.17	4.600	5.200	20.9
POTASSIUM	MG/KG	21/21	21	2/21	253.000-1300.000	738.67			1230
SELENIUM	MG/KG	3/11	11	1/11	0.510-0.800	0.61	0.230	1.200	0.72
SILICON	MG/KG	21/21	21	0/21	235.000-1300.000	647.95			1800
SILVER	MG/KG	3/21	21	3/21	0.470-8.700	3.22	0.440	2.600	NA

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	11/21	21	7/21	27.600-157.000	80.47	31.200	127.000	51.1
THALLIUM	MG/KG	0/21	21	0/21			0.220	0.860	0.58
VANADIUM	MG/KG	20/21	21	0/21	9.500-27.500	18.15	8.000	8.000	30.4
ZINC	MG/KG	14/21	21	3/21	23.200-96.800	47.01	12.700	66.300	59.6

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/21	21	0/21			6.000	14.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/21	21	0/21			6.000	14.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/21	21	0/21			6.000	14.000	
1,1-DICHLOROETHANE	UG/KG	0/21	21	0/21			6.000	14.000	
1,1-DICHLOROETHENE	UG/KG	0/21	21	0/21			6.000	14.000	
1,2-DICHLOROETHANE	UG/KG	0/21	21	0/21			6.000	14.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/21	21	0/21			6.000	14.000	
1,2-DICHLOROPROPANE	UG/KG	0/21	21	0/21			6.000	14.000	
2-BUTANONE	UG/KG	1/14	14	1/14	2.000-2.000	2.00	11.000	14.000	
2-HEXANONE	UG/KG	0/14	14	0/14			11.000	14.000	
4-METHYL-2-PENTANONE	UG/KG	0/14	14	0/14			11.000	14.000	
ACETONE	UG/KG	3/21	21	3/21	12.000-22.000	15.33	10.000	13.000	
BENZENE	UG/KG	0/21	21	0/21			6.000	14.000	
BROMODICHLOROMETHANE	UG/KG	0/21	21	0/21			6.000	14.000	
BROMOFORM	UG/KG	0/21	21	0/21			6.000	14.000	
BROMOMETHANE	UG/KG	0/21	21	0/21			11.000	14.000	
CARBON DISULFIDE	UG/KG	0/21	21	0/21			6.000	14.000	
CARBON TETRACHLORIDE	UG/KG	0/21	21	0/21			6.000	14.000	
CHLOROBENZENE	UG/KG	1/21	21	1/21	2.000-2.000	2.00	6.000	14.000	
CHLOROETHANE	UG/KG	0/21	21	0/21			11.000	14.000	
CHLOROFORM	UG/KG	0/21	21	0/21			6.000	14.000	
CHLOROMETHANE	UG/KG	0/21	21	0/21			11.000	14.000	

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/21	21	0/21			6.000	14.000	
DIBROMOCHLOROMETHANE	UG/KG	0/21	21	0/21			6.000	14.000	
ETHYLBENZENE	UG/KG	0/21	21	0/21			6.000	14.000	
METHYLENE CHLORIDE	UG/KG	0/21	21	0/21			6.000	22.000	
STYRENE	UG/KG	0/21	21	0/21			6.000	14.000	
TETRACHLOROETHENE	UG/KG	2/21	21	2/21	2.000-3.000	2.50	6.000	14.000	
TOLUENE	UG/KG	1/21	21	1/21	3.000-3.000	3.00	6.000	14.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/21	21	0/21			6.000	14.000	
TRICHLOROETHENE	UG/KG	1/21	21	1/21	2.000-2.000	2.00	6.000	14.000	
VINYL ACETATE	UG/KG	0/16	16	0/16			11.000	14.000	
VINYL CHLORIDE	UG/KG	0/21	21	0/21			11.000	14.000	
XYLENES, TOTAL	UG/KG	0/21	21	0/21			6.000	14.000	

AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			6.000	6.000	
2-HEXANONE	UG/KG	0/1	1	0/1			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROFORM	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/21	21	0/21			370.000	460.000	
1,2-DICHLOROBENZENE	UG/KG	0/21	21	0/21			370.000	460.000	
1,3-DICHLOROBENZENE	UG/KG	0/21	21	0/21			370.000	460.000	
1,4-DICHLOROBENZENE	UG/KG	0/21	21	0/21			370.000	460.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/21	21	0/21			930.000	2200.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/21	21	0/21			370.000	460.000	
2,4-DICHLOROPHENOL	UG/KG	0/21	21	0/21			370.000	460.000	
2,4-DIMETHYLPHENOL	UG/KG	0/21	21	0/21			370.000	460.000	
2,4-DINITROPHENOL	UG/KG	0/12	12	0/12			930.000	2200.000	
2,4-DINITROTOLUENE	UG/KG	0/21	21	0/21			370.000	460.000	
2,6-DINITROTOLUENE	UG/KG	0/21	21	0/21			370.000	460.000	
2-CHLORONAPHTHALENE	UG/KG	0/21	21	0/21			370.000	460.000	
2-CHLOROPHENOL	UG/KG	0/21	21	0/21			370.000	460.000	
2-METHYLNAPHTHALENE	UG/KG	0/21	21	0/21			370.000	460.000	
2-METHYLPHENOL	UG/KG	0/21	21	0/21			370.000	460.000	
2-NITROANILINE	UG/KG	0/21	21	0/21			930.000	2200.000	
2-NITROPHENOL	UG/KG	0/21	21	0/21			370.000	460.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/21	21	0/21			370.000	840.000	
3-NITROANILINE	NONE	0/21	21	0/21			930.000	2200.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/19	19	0/19			930.000	2200.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/21	21	0/21			370.000	460.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/21	21	0/21			370.000	460.000	

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/21	21	0/21			370.000	460.000	
4-METHYLPHENOL	UG/KG	1/21	21	1/21	190.000-190.000	190.00	370.000	440.000	
4-NITROANILINE	UG/KG	0/20	20	0/20			930.000	2200.000	
4-NITROPHENOL	UG/KG	0/20	20	0/20			930.000	2200.000	
ACENAPHTHENE	UG/KG	0/21	21	0/21			370.000	460.000	
ACENAPHTHYLENE	UG/KG	0/21	21	0/21			370.000	460.000	
ANTHRACENE	UG/KG	1/21	21	1/21	67.000-67.000	67.00	370.000	440.000	
BENZO(A)ANTHRACENE	UG/KG	2/21	21	2/21	48.000-67.000	57.50	370.000	440.000	
BENZO(A)PYRENE	UG/KG	2/21	21	2/21	60.000-61.000	60.50	370.000	440.000	
BENZO(B)FLUORANTHENE	UG/KG	2/21	21	2/21	39.000-66.000	52.50	370.000	440.000	
BENZO(G,H,I)PERYLENE	UG/KG	3/21	21	3/21	38.000-130.000	71.00	370.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	2/21	21	2/21	53.000-77.000	65.00	370.000	440.000	
BENZOIC ACID	UG/KG	0/19	19	0/19			930.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/21	21	0/21			370.000	460.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/21	21	0/21			370.000	460.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/21	21	0/21			370.000	460.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/21	21	0/21			370.000	460.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	5/21	21	5/21	50.000-700.000	184.40	370.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/21	21	0/21			370.000	460.000	
CARBAZOLE	UG/KG	1/3	3	1/3	7.000-7.000	7.00	410.000	440.000	
CHRYSENE	UG/KG	2/21	21	2/21	61.000-88.000	74.50	370.000	440.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/21	21	0/21			370.000	460.000	

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	1/21	21	1/21	7.000-7.000	7.00	370.000	440.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/21	21	0/21			370.000	460.000	
DIBENZOFURAN	UG/KG	0/21	21	0/21			370.000	460.000	
DIETHYL PHTHALATE	UG/KG	1/21	21	1/21	14.000-14.000	14.00	370.000	440.000	
DIMETHYL PHTHALATE	UG/KG	0/21	21	0/21			370.000	460.000	
FLUORANTHENE	UG/KG	6/21	21	6/21	43.000-190.000	90.67	57.000	420.000	
FLUORENE	UG/KG	1/21	21	1/21	7.000-7.000	7.00	370.000	440.000	
HEXACHLOROBENZENE	UG/KG	0/21	21	0/21			370.000	460.000	
HEXACHLOROBUTADIENE	UG/KG	0/20	20	0/20			370.000	460.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/21	21	0/21			370.000	460.000	
HEXACHLOROETHANE	UG/KG	0/21	21	0/21			370.000	460.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/21	21	2/21	35.000-50.000	42.50	370.000	440.000	
ISOPHORONE	UG/KG	0/21	21	0/21			370.000	460.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/21	21	0/21			370.000	460.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/21	21	0/21			370.000	460.000	
NAPHTHALENE	UG/KG	0/21	21	0/21			370.000	460.000	
NITROBENZENE	UG/KG	0/21	21	0/21			370.000	460.000	
P-CHLOROANILINE	UG/KG	0/21	21	0/21			370.000	460.000	
PENTACHLOROPHENOL	UG/KG	0/21	21	0/21			930.000	2200.000	
PHENANTHRENE	UG/KG	2/21	21	2/21	67.000-110.000	88.50	370.000	440.000	
PHENOL	UG/KG	1/21	21	1/21	42.000-42.000	42.00	370.000	440.000	
PYRENE	UG/KG	6/21	21	6/21	45.000-150.000	76.17	380.000	420.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			780.000	780.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
CHRYSENE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			390.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			390.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
ISOPHORONE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
NITROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			390.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			390.000	390.000	
PHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/19	19	0/19			3.800	20.000	
4,4'-DDE	UG/KG	0/19	19	0/19			3.800	20.000	
4,4'-DDT	UG/KG	0/19	19	0/19			3.800	20.000	
ALDRIN	UG/KG	0/19	19	0/19			1.900	10.000	
ALPHA-BHC	UG/KG	0/19	19	0/19			1.900	10.000	
ALPHA-CHLORDANE	UG/KG	0/19	19	0/19			1.900	100.000	
AROCLOR-1016	UG/KG	0/19	19	0/19			38.000	100.000	
AROCLOR-1221	UG/KG	0/19	19	0/19			76.000	170.000	
AROCLOR-1232	UG/KG	0/19	19	0/19			38.000	100.000	
AROCLOR-1242	UG/KG	0/19	19	0/19			38.000	100.000	
AROCLOR-1248	UG/KG	0/19	19	0/19			38.000	100.000	
AROCLOR-1254	UG/KG	0/19	19	0/19			38.000	200.000	
AROCLOR-1260	UG/KG	0/19	19	0/19			38.000	200.000	
BETA-BHC	UG/KG	0/19	19	0/19			1.900	10.000	
DELTA-BHC	UG/KG	0/19	19	0/19			1.900	10.000	
DIELDRIN	UG/KG	0/19	19	0/19			3.800	20.000	
ENDOSULFAN II	UG/KG	0/19	19	0/19			3.800	20.000	
ENDOSULFAN SULFATE	UG/KG	0/19	19	0/19			3.800	20.000	
ENDOSULFAN-I	UG/KG	0/19	19	0/19			1.900	10.000	
ENDRIN	UG/KG	0/19	19	0/19			3.800	20.000	
ENDRIN ALDEHYDE	UG/KG	0/14	14	0/14			3.800	8.100	
ENDRIN KETONE	UG/KG	0/19	19	0/19			3.800	20.000	

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AREA: Southern Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/19	19	0/19			1.900	10.000	
GAMMA-CHLORDANE	UG/KG	0/19	19	0/19			1.900	100.000	
HEPTACHLOR	UG/KG	0/19	19	0/19			1.900	10.000	
HEPTACHLOR EPOXIDE	UG/KG	0/19	19	0/19			1.900	10.000	
METHOXYCHLOR	UG/KG	0/19	19	0/19			19.000	100.000	
TOXAPHENE	UG/KG	0/19	19	0/19			190.000	420.000	

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			18.000	18.000	
4,4'-DDE	UG/KG	0/1	1	0/1			18.000	18.000	
4,4'-DDT	UG/KG	0/1	1	0/1			18.000	18.000	
ALDRIN	UG/KG	0/1	1	0/1			9.200	9.200	
ALPHA-BHC	UG/KG	0/1	1	0/1			9.200	9.200	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			92.000	92.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			180.000	180.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			180.000	180.000	
BETA-BHC	UG/KG	0/1	1	0/1			9.200	9.200	
DELTA-BHC	UG/KG	0/1	1	0/1			9.200	9.200	
DIELDRIN	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			18.000	18.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			9.200	9.200	
ENDRIN	UG/KG	0/1	1	0/1			18.000	18.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			18.000	18.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			9.200	9.200	

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			92.000	92.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			9.200	9.200	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			9.200	9.200	
METHOXYCHLOR	UG/KG	0/1	1	0/1			92.000	92.000	
SULFOTEP	UG/KG	0/1	1	0/1			50.000	50.000	
TOXAPHENE	UG/KG	0/1	1	0/1			180.000	180.000	

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
ORGANOPHOSPHORUS PESTICIDES DEPTH: 5 - 10 FEET									
DIMETHOATE	UG/KG	0/1	1	0/1			50.000	50.000	
DISULFOTON	UG/KG	0/1	1	0/1			50.000	50.000	
FAMPHUR	UG/KG	0/1	1	0/1			100.000	100.000	
METHYL PARATHION	UG/KG	0/1	1	0/1			50.000	50.000	
PARATHION	UG/KG	0/1	1	0/1			50.000	50.000	
PHORATE	UG/KG	0/1	1	0/1			50.000	50.000	
THIONAZIN	UG/KG	0/1	1	0/1			50.000	50.000	

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 3 - 5 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	713.000-713.000	713.00			

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 10 - 15 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	464.000-464.000	464.00			

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY									
DEPTH: 15 - 20 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	5404.000-5404.000	5404.00			

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AREA: Southern Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY									
DEPTH: 20 - 9999 FEET									
TOTAL ORGANIC CARBON	MG/KG	2/2	2	2/2	1641.000-5135.000	3388.00			

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D.2.28 WESTERN AREA OF FEMP

The western area of the FEMP property consists mainly of an open area that surrounds the waste pit area (Operable Unit 1), the Solid Waste Landfill and Lime Sludge Ponds (Operable Unit 2) and the silo area (Operable Unit 4). The area is located immediately west of the production area and extends west to the fenced property boundary, west of Paddys Run. No known disposal or plant-related activities were conducted in this region of the FEMP, although access roads to Operable Units 1, 2 and 4 pass through this area. Approximately 400 soil sampling locations, mainly surface soil samples, were collected from this area under the CIS and site-wide RI/FS programs.

Surface Soil

Surface soil sampling locations in the western area of the FEMP property are shown in Figures D.2-32A through 32D. The maximum sample concentrations were compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was elevated above background in the area. Table D.2-28 presents the distribution of constituents with respect to background for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

All 17 of the radionuclides for which analyses were performed in the 0- to 0.5-foot depth interval exhibited levels that were elevated at least two times above background. Most of these radionuclides decreased in levels with depth; the exceptions were uranium-238, total uranium, uranium-234, uranium-235/236, radium-228, thorium-228, strontium-90, and technetium-99. The maximum total uranium concentration in the surface soil in this area was 2115 mg/kg, located within the 0- to 0.5-foot depth. The highest concentrations of total uranium were detected in an isolated area west of Plant 1, south of the solid waste landfill and east of waste pits 4 and 6. Total uranium concentrations dominate the other radionuclide contamination in this area.

The majority of inorganic constituents were detected at elevated concentrations above background in the 0- to 0.5-foot depth interval in this area. However, only beryllium, calcium, magnesium, molybdenum, potassium, selenium, sodium, and zinc concentrations were still significantly elevated above two times background at the 1.0- to 1.5-foot depth. Molybdenum and silver were detected, but no background levels were recorded.

Ten volatile organic compounds were detected in the 0- to 0.5-foot surface soil samples collected from the western area of the FEMP with detected concentrations ranging from 2 to 10 μg/kg, mainly located in isolated locations surrounding the waste pit area. Only methylene chloride and toluene were detected in the 1.0- to 1.5-foot depth interval in concentrations of 4 μg/kg and 13 μg/kg, respectively.

Twenty semivolatile organic compounds were detected in the surface soil samples. With concentrations ranging from 26 to 1300 μg/kg, the highest detections were located in isolated spots along the road north of the waste pit area. The majority of these compounds were PAHs commonly found at industrial sites. Only nine of these compounds, mainly PAHs, were detected at the 1.0- to 1.5-foot depth in concentrations ranging from 42 μg/kg to 140 μg/kg.

The pesticides 4,4'-DDE (detected in 1 of 40 samples) and dieldrin (1 of 41 samples) were detected in the 0- to 0.5-foot depth samples only in concentrations of 20 μg/kg each. Similarly, the PCBs Aroclor-1254 (5 of 41 samples) and Aroclor-1260 (2 of 41 samples) were detected solely in the 0- to 0.5-foot depth interval in concentration ranges of 11 to 590 μg/kg and 130 to 240 μg/kg, respectively. The highest isolated spots of PCB concentrations were located immediately west of the Plant 1 pad area. Octachlorodibenzo-p-dioxin was detected solely in the 0- to 0.5-foot depth interval in 4 of 11 samples ranging in concentrations from 240 to 900 ng/g.

Subsurface Soil

The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-28 presents the distribution of constituents above background for each sample depth interval.

Radionuclide values decreased significantly within the subsurface soil intervals within the western area of the FEMP. The radionuclides that exhibited continuous elevated activities throughout the 1.5- to 20-foot depths of subsurface soil include uranium-238, total uranium, and total thorium. Total uranium, as a predominent radiological contaminant in the subsurface soil, was present in up to 9 samples from a maximum of 22 samples in depths of 1.5 feet to 15.0 feet at concentrations ranging from 2 mg/kg to 27.71 mg/kg. The high levels of total uranium were detected primarily in samples collected from the area immediately west of Plant 1 area. Several samples collected from the 15- to

20-foot interval also detected total uranium to a maximum of 11 mg/kg, which was the typical detection limit for other samples in the same sampling program. In addition, a highly elevated total uranium concentration of 132.00 mg/kg was present in the 38.5- to 40.0-foot depth sample collected at Boring 2009, located approximately 700 feet southwest of the K-65 silos. Activities of uranium-238 were present slightly above background in most of the subsurface soil depth intervals, except in the interval of 5.0- to 10.0-foot where uranium-238 was detected at 7.78 pCi/g. Total thorium was present in the subsurface soil at levels slightly above background, and the maximum level of 18 mg/kg for total thorium was the typical detection limit for other samples in the same sampling program.

Strontium-90 was detected at significantly elevated activities (2.53-6.65 pCi/g) in a limited number of location at depths from 3.0 to 15.0 feet. These sampling locations that detected high levels of strontium-90 included Borings 1408, 1485/1487, and 2042, which are located southwest of K-65 silos, north of Plant 1 drum storage area (northwest of Plant 1 area), and central-south of K-65 slurry line, respectively. Radium-226 was detected at Boring 11203, located immediately north of the solid waste landfill (OU2), with activity greater than two times background in the 1.5- to 3.0-foot depth but decreased significantly at greater depth. Uranium-235/236 was detected in two samples collected from the 5.0- to 10.0-foot depth at concentrations of 0.819 pCi/g and 0.875 pCi/g, were greater than five times background. Activities of plutonium-239/240 were detected in one sample each from the 10.0- to 15.0-foot and 15.0- to 20.0-foot intervals, and plutonium-238 activities were present in the 10.0- to 15.0-foot depth interval only. The plutonium activities were also present in the subsurface soil samples collected from the area north of the Plant 1 drum storage area.

The majority of inorganic constituents detected at elevated concentrations in the surface soil were detected at significantly decreased concentrations within the subsurface zone. Only cadmium and silver were still significantly elevated within the greater depth intervals, mainly in the area north of the solid waste landfill.

Ten volatile organic compounds were detected at low concentrations in the subsurface soil samples. The majority of these compounds were detected primarily within the 1.5- to 3.0-foot depth interval in a limited number of samples (e.g., maximum of 2 of 18), in low concentrations ranging from 1 to 12 μg/kg. Toluene, however, was detected continuously from 1.5 to 20.0 feet in concentrations

ranging from 1 to 14 μg/kg in 5 of 25 samples. Trichloroethene was detected in the 20.0-foot depth interval only at 7 μg/kg.

The majority of the VOA detections in the subsurface soil were in isolated locations surrounding the waste pit area.

Seventeen semivolatile organic compounds, mainly PAHs, were detected in the subsurface soil samples in a limited number of samples (i.e., maximum 5 of 24 samples), with concentration ranging from 44 to 34,000 μg/kg. The majority of these compounds were confined to the 1.5- to 3.0-foot interval. The only semivolatile detected deeper than 3.0 feet was bis(2-ethylhexyl)phthalate, a common laboratory contaminant. The majority of the semivolatile contamination in the subsurface soil appears to be located in isolated spots near the Operable Unit 4 study area.

No pesticides or PCBs were detected in the subsurface soils collected from the western area of the FEMP.

Conclusions

The majority of the soil contamination present in the western area of the FEMP is located within the top 1.5 feet. Total uranium concentrations are elevated sporadically throughout this area and appear to be the most predominant radionuclide constituent detected in this area. The highest concentrations of radionuclides in the surface soil appear to be located surrounding the Operable Unit 1 waste pit area. The majority of the radionuclide contamination in the subsurface soil in this area is located in the area west of the Plant 1 area.

The majority of the inorganic contamination is localized within the surface soil, mainly within the area located north of the Operable Unit 2 sanitary landfill. Low concentrations of the volatile organic compounds and semivolatile organic compounds, mainly PAHs, were detected primarily in the surface soils located in isolated locations surrounding the waste pit area.

The radiological and chemical contamination appear to occur in immediate areas surrounding OU1 waste pit area, west of the Plant 1 area, north of OU2 solid waste landfill, and south of K-65 slurry line. These areas contain known sources of contamination and the contaminants may have been transported to the western area of the FEMP via spills, air deposition, surface water runoff, and

groundwater migration. In addition, vertical migration may be potential routes for subsurface soil contamination.

TABLE D.2-28
WESTERN AREA OF FEMP
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	208	■	■	■	■	■	■	■	■	■	■	X	X	X	⊙	X	X	●
0.5 - 1	15	□	■	□	⊙	■	□	⊙	⊙	■	■	-	-	-	⊙	-	-	○
1 - 1.5	16	■	■	■	⊙	●	■	⊙	⊙	■	■	-	-	-	■	X	-	○
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	4	●	■	●	○	⊙	-	●	●	●	○	-	-	-	-		-	-
3 - 5	4	●	■	○	●	○	-	●	●	○	●	-	-	-	■	-	-	-
5-10	7	■	■	■	●	○	■	●	●	○	●	-	-	-	⊙	-	-	X
10 - 15	8	●	⊙	●	○	○	-	○	●	○	○	-	X	X	■	X	-	-
15 - 20	3	●	⊙	○	○	○	-	-	●	○	○	-	X	-	-	-	-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1360	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	69.6
0 - 0.5	47	●	X	●	●	⊙	■	■	●	○	●	⊙	●	⊙	■	●	-	X	●	●	■	●	X	■	○	●	⊙
0.5 - 1	0																										
1 - 1.5	12	●	-	●	●	⊙	●	■	●	●	●	○	●	●	■	○	-	X	●	⊙	⊙	○	X	⊙	○	●	⊙
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.67	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	2	○	-	●	○	-	-	○	○	○	○	-	○	○	○	○	-	-	○	○	X	○		○	○	○	○
3 - 5	2	○	-	○	○	-	●	○	○	○	○	-	○	○	○	○	-	-	○	○	-	○		○	○	○	○
5-10	0																										
10 - 15	0																										
15 - 20	1	○	-	○	○	●	■	○	●	○	○	-	○	○	○	○	-	-	○	○	-		X	○	-	○	○

ND - Not detected in background study.

NA - Not analyzed in background study.

□ "Blank" - Not analyzed.

[-] Analyzed and not detected.

[○] Detection less than 95 percentile background value.

[●] Detection above but < 2X of 95 percentile background value.

[⊙] Detection 2X to 5X 95 percentile background value.

[■] Detection greater than 5X 95 percentile background value.

[X] Detection where background level not recorded.

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TABLE D.2-28
(Continued)

Depth Interval, Feet	VOLATILES (ug/kg)																	SEMIVOLATILES (ug/kg)																									
	Number of Samples	1,1,1-Trichloroethane	2-Butanone	2-Hexanone	4-Methyl-2-Pentanone	Acetone	Benzene	Carbon disulfide	Chlorobenzene	Chloroform	Chloromethane	Methylene chloride	Tetrachloroethene	Toluene	Total xylenes	Trichloroethene	Number of Samples	2-Chlorophenol	2-Methylnaphthalene	Acenaphthylene	Anthracene	Benzoic acid	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Carbazole	Chrysene	Dibenzofuran	Dibenzo(a,h)anthracene	Diethylphthalate	Di-n-butyl phthalate	Fluoranthene	Ideno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene
Surface Soil:																																											
0 - 0.5	31	-	X	X	-	X	X	-	X	-	-	X	X	X	X	X	29	-	-	X	X	-	X	X	X	X	X	X	X	X	X	-	X	-	X	X	X	-	X	-	X
0.5 - 1	0																1	-	X	X	-	-	X	X	X	-	-	-	-	-	X	X	-	-	-	X	-	X	X	-	X
1 - 1.5	12	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	12	-	-	-	-	-	X	-	X	-	X	-	X	-	X	-	-	-	X	X	-	-	X	-	X
Subsurface Soil:																																											
1.5 - 3	20	X	-	-	X	X	-	X	-	-	X	X	-	X	-	-	22	X	-	X	X	X	X	X	X	X	-	-	X	-	X	-	X	X	-	X	X	-	X	X	X
3 - 5	3	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	2	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-
5-10	1	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	0																								
10 - 15	0																0																								
15 - 20	1	-	X	-	-	-	-	-	-	X	-	-	-	X	-	X	1	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

001453

TABLE D.2-28
(Continued)

	PESTICIDES/PCBs (ug/kg)										DIOXINS/FURANS (ng/g)									
Depth Interval, Feet	Number of Samples	4,4'-DDE	Aroclor-1254	Aroclor-1260	Dieldrin						Number of Samples	Octachlorodibenzo-p-dioxin								
Surface Soil:																				
0 - 0.5	40	X	X	X	X						11	X								
0.5 - 1	1	-	-	-	-						0									
1 - 1.5	12	-	-	-	-						4	-								
Subsurface Soil:																				
1.5 - 3	3	-	-	-	-						0									
3 - 5	1	-	-	-	-						0									
5-10	0										0									
10 - 15	0										0									
15 - 20	1	-	-	-	-						0									

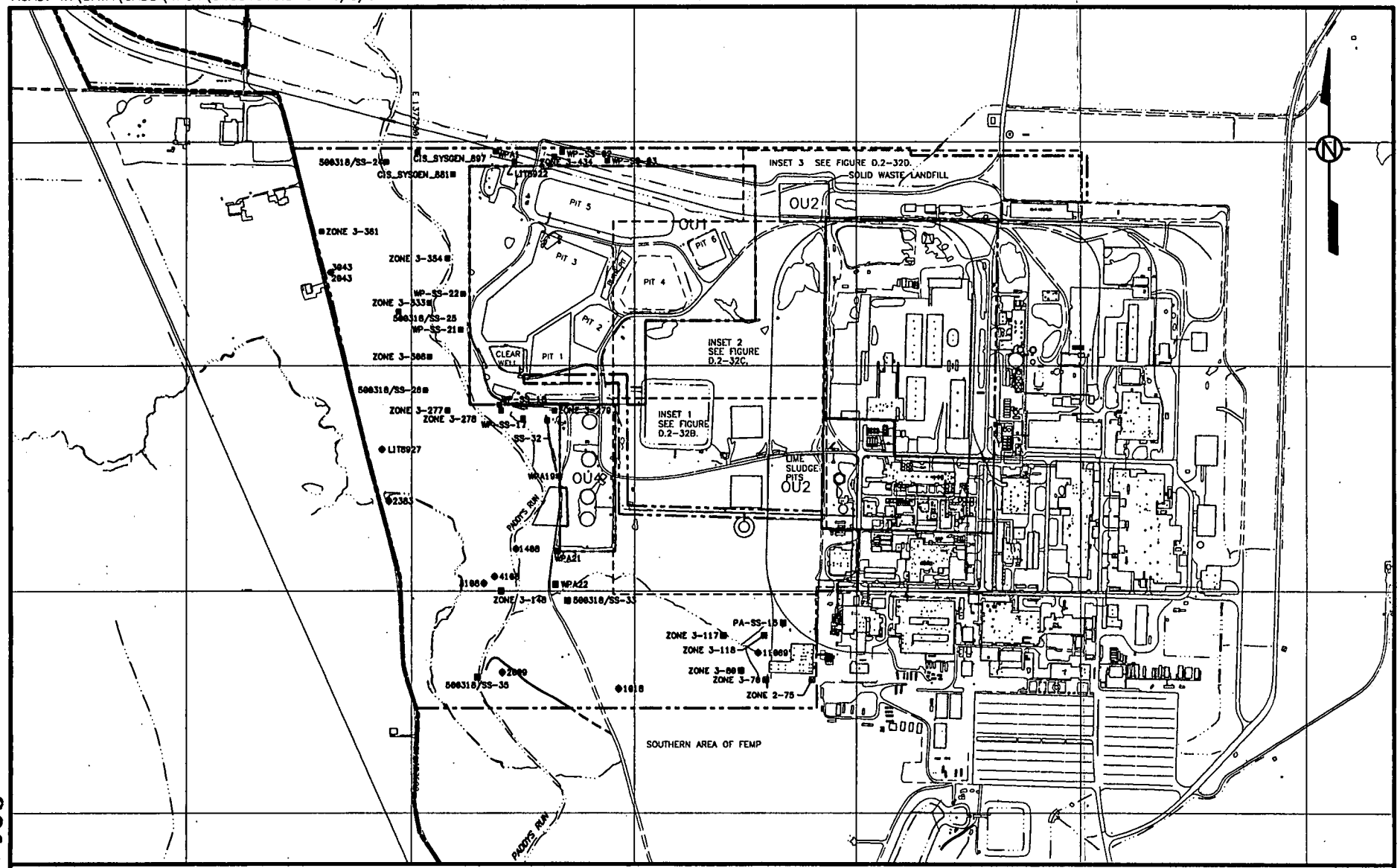
[ ] "Blank" - Compound was not analyzed.

[X] Detection where background level not recorded.

[-] Analyzed and not detected.

001454

ACAD: W:\DATA\CADD\4P94\94051010.DWG 6/8/94 MRM STATE PLANAR COORDINATE SYSTEM 1927



LEGEND:

⊕ SOIL BORING SAMPLE LOCATION

⊠ SURFACE SOIL SAMPLE LOCATION

BOUNDARY OF AREA OF INTEREST

SCALE

0 800 1,600 FEET

FIGURE D.2-32A. WESTERN AREA OF FEMP

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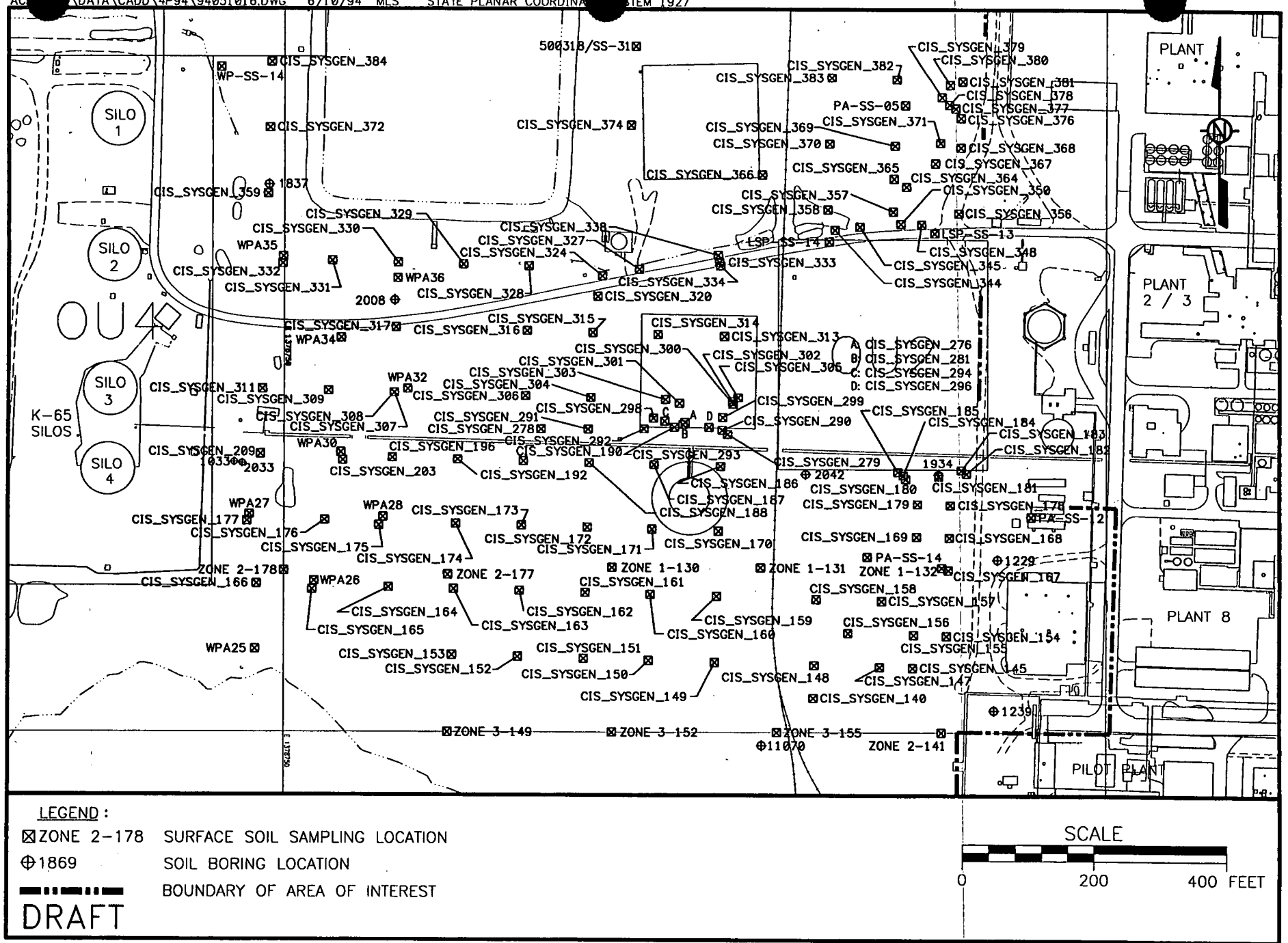
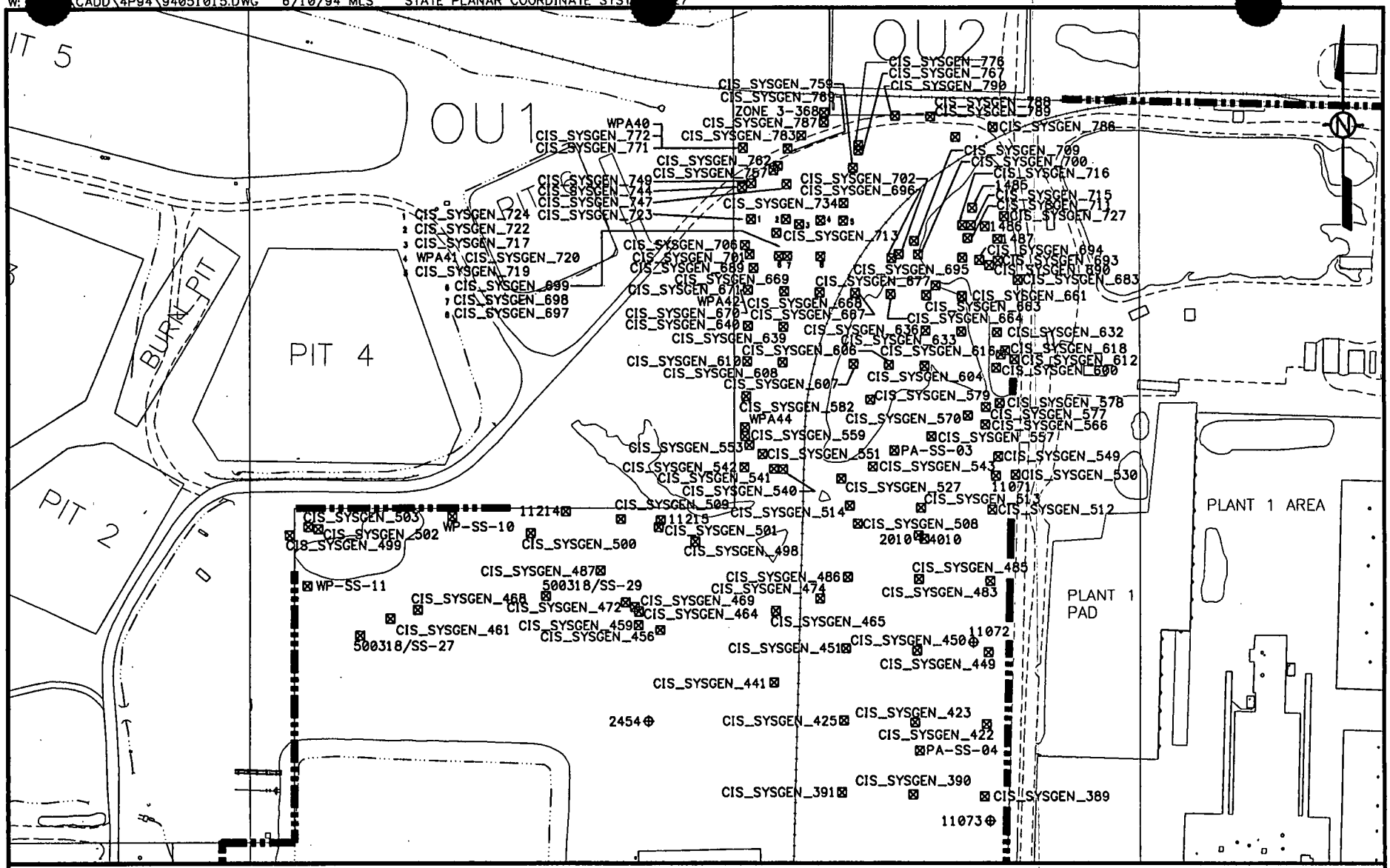


FIGURE D.2-32B. INSET 1

W: [illegible]\CADD\4P94\94051015.DWG 6/10/94 MLS STATE PLANAR COORDINATE SYST[illegible]27



LEGEND :

⊕2454 SOIL BORING LOCATION

⊠CIS_SYSGEN_500 SURFACE SOIL SAMPLING LOCATION

▬▬▬ BOUNDARY OF AREA OF INTEREST

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SCALE

0 200 400 FEET

FIGURE D.2-32C. INSET 2

001457

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W:\ CADD\4P94\9405101 7.DWG 6/10/94 MLS STATE PLANAR COORDINATE SYSTE 7

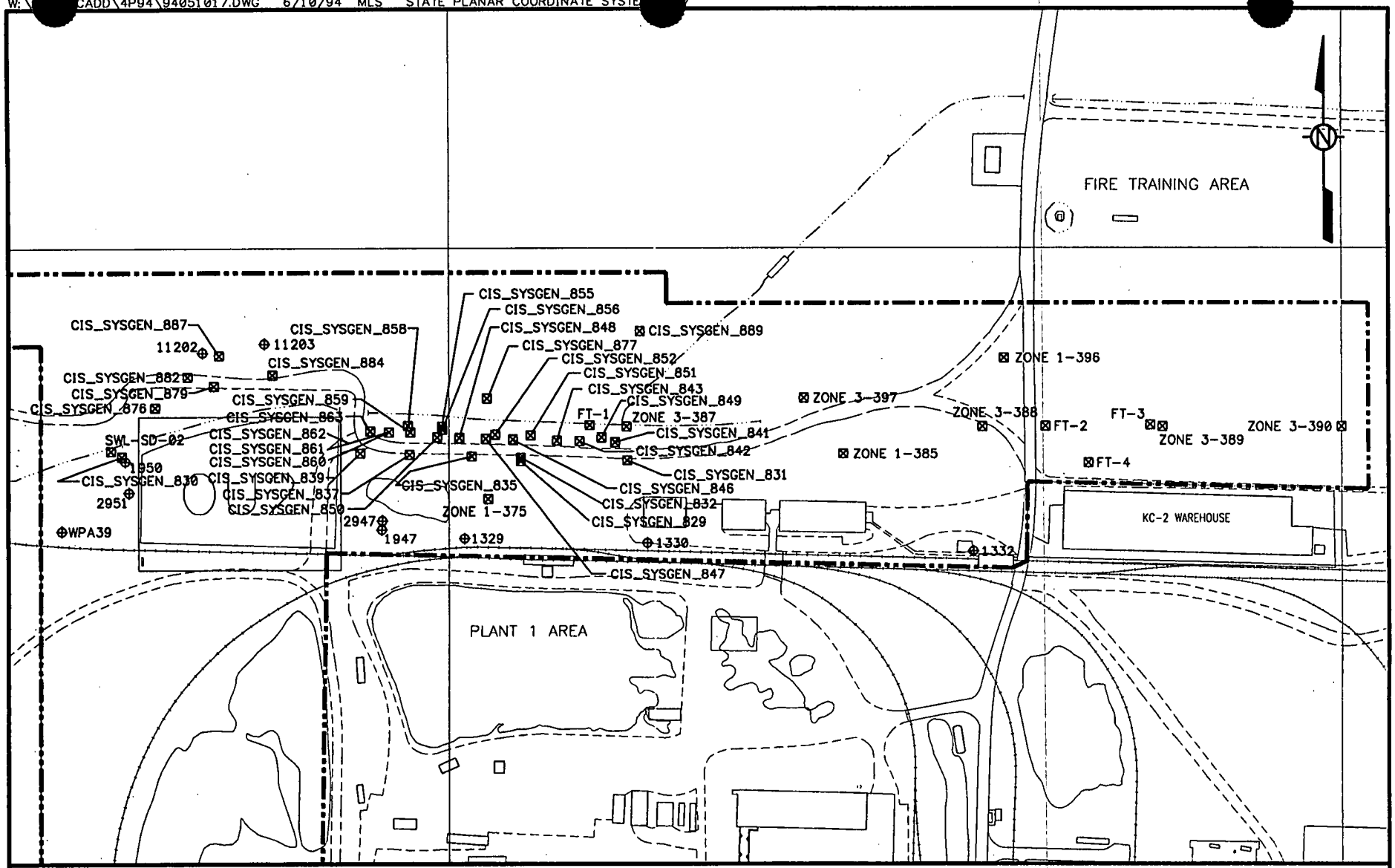

FIGURE D.2-32D. INSET 3

001458

6 6 9 5

Western Area of FEMP

Summary Soil Statistics

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	308/374	94	304/374	0.900-710.000	44.15	3.000	32.700	1.24
URANIUM, TOTAL	MG/KG	389/392	0	384/392	1.000-2115.800	110.05	11.000	11.000	3.73
URANIUM-234	PCI/G	97/97	0	90/97	0.500-298.000	19.77	34.000	56.700	1.24
THORIUM-230	PCI/G	97/98	0	57/98	0.200-219.000	11.41	19.700	19.700	1.97
RADIUM-226	PCI/G	307/385	63	93/385	0.300-51.200	2.16	0.250	5.700	1.42
LEAD-210	PCI/G	1/1	0	1/1	15.890-15.890	15.89	34.000	56.700	1.30
URANIUM-235/236	PCI/G	64/96	92	60/96	0.118-33.000	2.36	0.100	0.600	0.156
THORIUM-232	PCI/G	282/375	97	98/375	0.190-38.000	1.84	0.100	4.600	1.36
THORIUM, TOTAL	MG/KG	360/388	0	137/388	1.733-346.560	16.18	0.912	23.000	12.4
RADIUM-228	PCI/G	40/64	0	9/64	0.570-30.500	2.37	0.500	2.100	1.25
THORIUM-228	PCI/G	88/98	97	21/98	0.300-38.900	2.89	0.100	0.600	1.43
NEPTUNIUM-237	PCI/G	8/85	84	8/85	0.327-1.100	0.71	0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	4/88	88	4/88	0.215-0.800	0.56	0.200	0.600	NA
PLUTONIUM-238	PCI/G	10/88	88	10/88	0.242-4.100	1.29	0.200	0.600	NA
STRONTIUM-90	PCI/G	9/87	0	9/87	0.510-1.800	1.13	0.500	1.000	0.424
TECHNETIUM-99	PCI/G	10/90	0	10/90	1.570-93.000	15.02	1.000	4.000	NA
RUTHENIUM-106	PCI/G	1/359	0	1/359	3.070-3.070	3.07	1.000	19.700	NA
CESIUM-137	PCI/G	104/364	0	29/364	0.300-2.100	0.68	0.200	3.000	0.711
GROSS ALPHA	PCI/G	9/11	0	9/11	8.900-145.000	42.20	4.200	20.000	
GROSS BETA	PCI/G	9/11	0	9/11	19.600-106.000	44.10	34.000	34.000	
GROSS GAMMA	PCI/G	0/2	0	0/2			170.000	170.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	22/32	0	22/32	3.200-154.000	34.01	4.800	27.000	1.24
URANIUM, TOTAL	MG/KG	33/33	0	33/33	9.536-806.000	91.86	4.800	27.000	3.73
URANIUM-234	PCI/G	3/3	0	3/3	17.400-29.100	21.67	4.800	27.000	1.24
THORIUM-230	PCI/G	4/4	0	3/4	1.200-6.800	3.95	4.800	27.000	1.97
RADIUM-226	PCI/G	27/33	0	8/33	0.500-14.900	1.87	0.500	2.600	1.42
URANIUM-235/236	PCI/G	3/3	0	3/3	1.600-2.600	1.93	4.800	27.000	0.156
THORIUM-232	PCI/G	24/33	0	9/33	0.400-6.800	1.70	0.300	3.900	1.36
THORIUM, TOTAL	MG/KG	33/33	0	12/33	2.736-62.016	14.90	4.800	27.000	12.4
RADIUM-228	PCI/G	4/4	0	3/4	0.800-12.300	5.65	4.800	27.000	1.25
THORIUM-228	PCI/G	4/4	0	3/4	0.700-14.200	6.70	4.800	27.000	1.43
NEPTUNIUM-237	PCI/G	0/4	0	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	0	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	0	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	3/4	0	3/4	0.900-2.100	1.40	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	0/4	0	0/4			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/33	0	0/33			1.000	11.500	NA
CESIUM-137	PCI/G	1/33	0	0/33	0.600-0.600	0.60	0.200	2.000	0.711

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	16/19	10	14/19	0.400-343.000	50.64	7.600	10.100	1.24
URANIUM, TOTAL	MG/KG	24/24	15	21/24	2.600-1790.000	124.26	11.000	13000.000	3.73
URANIUM-234	PCI/G	13/13	0	10/13	0.400-52.100	12.51	11.000	13000.000	1.24
THORIUM-230	PCI/G	17/17	14	3/17	0.300-9.200	2.02	11.000	13000.000	1.97
RADIUM-226	PCI/G	19/24	15	2/24	0.300-1.600	0.98	0.250	2.000	1.42
URANIUM-235/236	PCI/G	5/13	10	5/13	0.200-5.100	2.47	0.100	0.880	0.156
THORIUM-232	PCI/G	23/23	0	3/23	0.200-3.800	1.06	11.000	13000.000	1.36
THORIUM, TOTAL	MG/KG	23/23	0	3/23	1.824-34.659	9.64	11.000	13000.000	12.4
RADIUM-228	PCI/G	10/18	15	5/18	0.800-16.400	3.65	0.500	0.500	1.25
THORIUM-228	PCI/G	17/17	0	4/17	0.300-24.000	3.17	11.000	13000.000	1.43
NEPTUNIUM-237	PCI/G	0/10	7	0/10			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	0/9	0	0/9			0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/9	6	0/9			0.200	0.600	NA
STRONTIUM-90	PCI/G	6/10	0	6/10	0.600-3.620	1.35	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/10	0	1/10	1.100-1.100	1.10	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/15	6	0/15			1.000	9.000	NA
CESIUM-137	PCI/G	1/15	0	0/15	0.280-0.280	0.28	0.200	1.000	0.711
GROSS ALPHA	PCI/G	4/4	0	4/4	18.700-71.100	39.48	11.000	13000.000	
GROSS BETA	PCI/G	4/4	0	4/4	19.600-49.800	34.08	11.000	13000.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	1/4	0	1/4	1.400-1.400	1.40	3.500	9.300	1.12
URANIUM, TOTAL	MG/KG	10/20	0	7/20	2.000-27.714	9.92	11.000	11.000	3.69
URANIUM-234	PCI/G	1/1	1	1/1	1.200-1.200	1.20	5.000	12.000	1.04
THORIUM-230	PCI/G	3/3	3	0/3	0.700-1.600	1.17	5.000	12.000	1.91
RADIUM-226	PCI/G	5/6	0	1/6	0.300-3.300	1.28	1.700	1.700	1.47
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150
THORIUM-232	PCI/G	6/6	0	1/6	0.500-1.300	0.88	5.000	12.000	1.26
THORIUM, TOTAL	MG/KG	9/19	0	4/19	4.560-19.000	11.48	18.000	23.000	11.1
RADIUM-228	PCI/G	2/3	3	1/3	1.100-1.600	1.35	0.500	0.500	1.31
THORIUM-228	PCI/G	3/3	3	0/3	0.500-1.300	0.87	5.000	12.000	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/1	1	0/1			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/1	1	0/1			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/1	0	0/1			1.300	1.300	NA
RUTHENIUM-106	PCI/G	0/4	0	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	0	0/4			0.200	0.300	NA

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	4/4	4	1/4	0.900-1.700	1.16	6.000	11.000	1.12
URANIUM, TOTAL	MG/KG	7/7	0	1/7	1.990-22.000	5.32	6.000	11.000	3.69
URANIUM-234	PCI/G	4/4	4	0/4	0.700-1.000	0.84	6.000	11.000	1.04
THORIUM-230	PCI/G	5/5	5	1/5	0.900-2.300	1.46	6.000	11.000	1.91
RADIUM-226	PCI/G	4/5	5	0/5	0.300-1.100	0.83	0.250	0.250	1.47
URANIUM-235/236	PCI/G	0/4	4	0/4			0.100	0.600	0.150
THORIUM-232	PCI/G	5/5	5	1/5	0.200-1.300	0.77	6.000	11.000	1.26
THORIUM, TOTAL	MG/KG	5/6	0	1/6	1.824-11.856	6.99	23.000	23.000	11.1
RADIUM-228	PCI/G	2/5	5	0/5	0.970-1.200	1.09	0.500	0.800	1.31
THORIUM-228	PCI/G	5/5	5	1/5	0.600-1.400	0.96	6.000	11.000	1.38
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	3	0/3			0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.200	0.600	NA
STRONTIUM-90	PCI/G	1/3	3	1/3	6.000-6.000	6.00	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	3	0/3			1.000	1.400	NA
CESIUM-137	PCI/G	0/3	3	0/3			0.200	0.200	NA
GROSS ALPHA	PCI/G	1/1	0	1/1	12.000-12.000	12.00	6.000	11.000	
GROSS BETA	PCI/G	1/1	0	1/1	21.000-21.000	21.00	6.000	11.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	4/5	5	3/5	0.880-7.780	4.66	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	10/22	0	9/22	2.000-24.600	12.03	2.066	11.000	3.69
URANIUM-234	PCI/G	4/5	5	3/5	0.700-5.650	3.61	0.600	0.600	1.04
THORIUM-230	PCI/G	5/5	5	2/5	0.530-2.750	1.67	6.000	6.000	1.91
RADIUM-226	PCI/G	5/5	5	0/5	0.700-1.180	0.99	6.000	6.000	1.47
URANIUM-235/236	PCI/G	2/5	5	2/5	0.819-0.875	0.85	0.100	0.600	0.150
THORIUM-232	PCI/G	3/5	5	1/5	0.793-1.390	1.01	0.100	0.600	1.26
THORIUM, TOTAL	MG/KG	8/19	0	5/19	5.070-18.000	13.05	5.472	23.000	11.1
RADIUM-228	PCI/G	4/5	5	0/5	0.660-1.230	1.01	0.500	0.500	1.31
THORIUM-228	PCI/G	5/5	5	1/5	0.600-1.500	1.01	6.000	6.000	1.38
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.200	0.600	NA
STRONTIUM-90	PCI/G	3/4	4	3/4	0.560-2.040	1.23	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/4	4	0/4			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/5	5	0/5			1.000	1.000	NA
CESIUM-137	PCI/G	1/5	5	1/5	0.366-0.366	0.37	0.200	0.200	NA
GROSS ALPHA	PCI/G	1/1	0	1/1	7.160-7.160	7.16	6.000	6.000	
GROSS BETA	PCI/G	1/1	0	1/1	21.300-21.300	21.30	6.000	6.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	7/7	7	2/7	0.600-1.820	1.12	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	11/19	0	6/19	1.000-17.000	7.20	11.000	11.000	3.69
URANIUM-234	PCI/G	6/7	7	2/7	0.700-1.510	1.09	0.600	0.600	1.04
THORIUM-230	PCI/G	7/7	7	0/7	0.900-1.800	1.32	0.600	0.600	1.91
RADIUM-226	PCI/G	5/5	5	0/5	0.700-0.900	0.76	0.600	0.600	1.47
URANIUM-235/236	PCI/G	0/7	7	0/7			0.600	0.600	0.150
THORIUM-232	PCI/G	5/7	7	0/7	0.724-1.110	0.93	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	9/20	0	4/20	6.530-18.000	12.69	5.472	23.000	11.1
RADIUM-228	PCI/G	3/5	5	0/5	0.648-0.800	0.72	0.500	0.500	1.31
THORIUM-228	PCI/G	7/7	7	0/7	0.700-1.210	0.98	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/7	7	1/7	0.622-0.622	0.62	0.600	0.600	NA
PLUTONIUM-238	PCI/G	1/7	7	1/7	0.937-0.937	0.94	0.600	0.600	NA
STRONTIUM-90	PCI/G	3/7	7	3/7	2.530-6.650	4.06	0.500	0.500	.436
TECHNETIUM-99	PCI/G	2/5	5	2/5	1.400-3.600	2.50	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/5	5	0/5			1.000	1.000	NA
CESIUM-137	PCI/G	0/5	5	0/5			0.200	0.300	NA

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	2/2	2	1/2	0.774-1.150	0.96	6.000	6.000	1.12
URANIUM, TOTAL	MG/KG	7/14	0	4/14	2.000-11.000	7.21	3.000	11.000	3.69
URANIUM-234	PCI/G	2/2	2	0/2	0.809-0.912	0.86	6.000	6.000	1.04
THORIUM-230	PCI/G	2/2	2	0/2	0.850-0.974	0.91	6.000	6.000	1.91
RADIUM-226	PCI/G	2/2	2	0/2	0.694-0.751	0.72	6.000	6.000	1.47
URANIUM-235/236	PCI/G	0/2	2	0/2			0.600	0.600	0.150
THORIUM-232	PCI/G	0/2	2	0/2			0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	6/12	0	4/12	4.640-18.000	13.61	18.000	23.000	11.1
RADIUM-228	PCI/G	1/2	2	0/2	0.737-0.737	0.74	0.500	0.500	1.31
THORIUM-228	PCI/G	2/2	2	0/2	0.679-0.720	0.70	6.000	6.000	1.38
NEPTUNIUM-237	PCI/G	0/2	2	0/2			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/2	2	1/2	2.440-2.440	2.44	0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/2	2	0/2			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/2	2	0/2			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/2	2	0/2			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/2	2	0/2			1.000	1.000	NA
CESIUM-137	PCI/G	0/2	2	0/2			0.200	0.200	NA

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	4/12	12	1/12	0.800-1.610	1.00	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	5/24	0	3/24	2.662-132.000	29.29	2.000	11.000	3.69
URANIUM-234	PCI/G	6/12	12	1/12	0.600-1.400	0.90	0.600	0.600	1.04
THORIUM-230	PCI/G	11/12	12	1/12	0.600-2.000	1.15	0.600	0.600	1.91
RADIUM-226	PCI/G	9/9	9	1/9	0.400-1.540	0.61	0.600	0.600	1.47
URANIUM-235/236	PCI/G	0/12	12	0/12			0.600	0.600	0.150
THORIUM-232	PCI/G	1/12	12	0/12	0.607-0.607	0.61	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	2/23	0	0/23	2.460-5.480	3.97	0.800	18.000	11.1
RADIUM-228	PCI/G	3/9	9	1/9	0.552-1.330	0.83	0.500	0.500	1.31
THORIUM-228	PCI/G	2/12	12	0/12	0.700-1.110	0.91	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/11	11	0/11			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/11	11	0/11			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/11	11	0/11			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/10	10	0/10			0.500	5.000	.436
TECHNETIUM-99	PCI/G	1/9	9	1/9	1.200-1.200	1.20	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/9	9	0/9			1.000	1.000	NA
CESIUM-137	PCI/G	0/9	9	0/9			0.200	0.200	NA

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	50/50	50	5/50	4080.000-13700.000	8499.20	34.000	56.700	11900
ANTIMONY	MG/KG	13/26	26	13/26	12.800-32.300	24.49	0.860	3.300	NA
ARSENIC	MG/KG	45/46	46	7/46	1.600-32.500	7.14	1.000	1.000	8.20
BARIUM	MG/KG	50/50	50	4/50	36.500-116.000	65.09	34.000	56.700	95.7
BERYLLIUM	MG/KG	26/50	50	22/50	0.510-1.800	0.85	0.410	2.700	0.6
CADMIUM	MG/KG	22/50	50	22/50	1.300-6.700	4.01	0.460	2.500	0.870
CALCIUM	MG/KG	50/50	50	48/50	1480.000-220000.000	63786.40	34.000	56.700	4340
CHROMIUM	MG/KG	50/50	50	16/50	6.000-21.600	13.62	34.000	56.700	15.5
COBALT	MG/KG	48/50	50	0/50	3.900-13.200	8.33	4.900	7.500	14.2
COPPER	MG/KG	45/50	50	30/50	8.800-26.900	16.04	16.100	34.100	14.1
CYANIDE	MG/KG	11/49	49	4/49	0.120-0.690	0.27	0.110	0.330	0.270
IRON	MG/KG	50/50	50	8/50	9040.000-35700.000	17164.80	34.000	56.700	21700
LEAD	MG/KG	36/37	37	6/37	8.600-111.000	19.59	0.470	0.470	26.4
MAGNESIUM	MG/KG	50/50	50	47/50	1740.000-65300.000	17160.60	34.000	56.700	2780
MANGANESE	MG/KG	49/50	50	1/50	142.000-1440.000	524.18	739.000	739.000	1350
MERCURY	MG/KG	0/50	50	0/50			0.050	0.270	0.3
MOLYBDENUM	MG/KG	20/46	46	20/46	2.700-5.700	4.37	1.900	9.900	NA
NICKEL	MG/KG	46/50	50	18/50	8.200-41.300	19.50	16.200	27.600	20.9
POTASSIUM	MG/KG	50/50	50	8/50	477.000-2070.000	1021.36	34.000	56.700	1230
SELENIUM	MG/KG	8/39	39	2/39	0.370-3.700	0.99	0.330	4.900	0.72
SILICON	MG/KG	25/25	25	1/25	86.500-1920.000	572.82	34.000	56.700	1800
SILVER	MG/KG	31/48	48	31/48	0.470-10.400	5.91	0.220	4.900	NA

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	37/50	50	33/50	42.000-262.000	114.28	31.600	183.000	51.1
THALLIUM	MG/KG	1/50	50	0/50	0.440-0.440	0.44	0.210	0.980	0.58
VANADIUM	MG/KG	50/50	50	7/50	13.900-49.000	23.56	34.000	56.700	30.4
ZINC	MG/KG	47/50	50	10/50	32.900-137.000	53.68	34.000	56.700	59.6

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	13/13	13	5/13	7080.000-14000.000	10867.69	11.000	13000.000	11900
ANTIMONY	MG/KG	0/3	3	0/3			1.100	2.700	NA
ARSENIC	MG/KG	9/9	9	3/9	3.300-14.000	7.23	11.000	13000.000	8.20
BARIUM	MG/KG	13/13	13	8/13	48.900-145.000	101.95	11.000	13000.000	95.7
BERYLLIUM	MG/KG	6/13	13	6/13	0.920-2.100	1.27	0.420	2.000	0.6
CADMIUM	MG/KG	2/13	13	2/13	1.600-1.700	1.65	1.100	1.600	0.870
CALCIUM	MG/KG	13/13	13	11/13	2260.000-117000.000	44254.62	11.000	13000.000	4340
CHROMIUM	MG/KG	13/13	13	2/13	11.000-16.100	13.91	11.000	13000.000	15.5
COBALT	MG/KG	13/13	13	3/13	4.500-17.500	10.44	11.000	13000.000	14.2
COPPER	MG/KG	8/13	13	7/13	13.500-22.000	17.85	15.200	21.400	14.1
CYANIDE	MG/KG	2/12	12	0/12	0.160-0.270	0.22	0.120	0.300	0.270
IRON	MG/KG	13/13	13	5/13	16100.000-26300.000	21146.15	11.000	13000.000	21700
LEAD	MG/KG	9/9	9	2/9	10.300-28.500	17.39	11.000	13000.000	26.4
MAGNESIUM	MG/KG	13/13	13	12/13	2420.000-34700.000	12730.00	11.000	13000.000	2780
MANGANESE	MG/KG	13/13	13	0/13	256.000-1230.000	698.46	11.000	13000.000	1350
MERCURY	MG/KG	0/13	13	0/13			0.060	0.140	0.3
MOLYBDENUM	MG/KG	4/9	9	4/9	5.900-7.900	6.70	3.800	4.400	NA
NICKEL	MG/KG	9/13	13	2/13	11.700-29.700	19.21	17.600	25.400	20.9
POTASSIUM	MG/KG	13/13	13	4/13	648.000-4230.000	1296.31	11.000	13000.000	1230
SELENIUM	MG/KG	3/8	8	3/8	0.730-1.500	1.21	0.220	2.300	0.72
SILICON	MG/KG	6/6	6	0/6	143.000-953.000	513.00	11.000	13000.000	1800
SILVER	MG/KG	5/11	11	5/11	4.600-7.700	6.56	0.220	0.450	NA

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	11/13	13	9/13	38.900-163.000	103.23	109.000	135.000	51.1
THALLIUM	MG/KG	1/13	13	0/13	0.270-0.270	0.27	0.220	0.510	0.58
VANADIUM	MG/KG	13/13	13	8/13	25.500-44.000	32.75	11.000	13000.000	30.4
ZINC	MG/KG	13/13	13	5/13	43.000-285.000	78.93	11.000	13000.000	59.6

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	7510.000-8750.000	8130.00	5.000	12.000	16100
ANTIMONY	MG/KG	0/2	2	0/2			2.500	2.600	NA
ARSENIC	MG/KG	2/2	2	1/2	5.300-10.600	7.95	5.000	12.000	9.57
BARIUM	MG/KG	2/2	2	0/2	64.800-102.000	83.40	5.000	12.000	119
BERYLLIUM	MG/KG	0/2	2	0/2			1.100	1.200	0.620
CADMIUM	MG/KG	0/2	2	0/2			1.100	1.200	0.910
CALCIUM	MG/KG	2/2	2	0/2	32200.000-134000.000	83100.00	5.000	12.000	150000
CHROMIUM	MG/KG	2/2	2	0/2	12.000-13.000	12.50	5.000	12.000	20.7
COBALT	MG/KG	2/2	2	0/2	5.600-6.600	6.10	5.000	12.000	15.7
COPPER	MG/KG	1/2	2	0/2	14.900-14.900	14.90	15.300	15.300	20.0
CYANIDE	MG/KG	0/3	3	0/3			0.120	0.300	.17
IRON	MG/KG	2/2	2	0/2	16600.000-17900.000	17250.00	5.000	12.000	30700
LEAD	MG/KG	2/2	2	0/2	10.200-13.300	11.75	5.000	12.000	15.6
MAGNESIUM	MG/KG	2/2	2	0/2	17100.000-29000.000	23050.00	5.000	12.000	42600
MANGANESE	MG/KG	2/2	2	0/2	255.000-374.000	314.50	5.000	12.000	1300
MERCURY	MG/KG	0/2	2	0/2			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/2	2	0/2			3.800	4.100	2.7
NICKEL	MG/KG	2/2	2	0/2	16.300-18.700	17.50	5.000	12.000	34.3
POTASSIUM	MG/KG	2/2	2	0/2	1220.000-1230.000	1225.00	5.000	12.000	1980
SELENIUM	MG/KG	1/1	1	1/1	1.000-1.000	1.00	0.450	0.450	NA
SILICON	MG/KG	1/1	1	0/1	422.000-422.000	422.00	5.000	12.000	1590
SODIUM	MG/KG	1/2	2	0/2	62.500-62.500	62.50	133.000	133.000	285

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
THALLIUM	MG/KG	1/2	2	0/2	0.270-0.270	0.27	0.220	0.220	0.49
VANADIUM	MG/KG	2/2	2	0/2	21.400-24.800	23.10	5.000	12.000	37.8
ZINC	MG/KG	2/2	2	0/2	49.400-72.200	60.80	5.000	12.000	82.0

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	2/2	2	0/2	7150.000-7790.000	7470.00	6.000	11.000	16100
ANTIMONY	MG/KG	0/2	2	0/2			2.500	2.500	NA
ARSENIC	MG/KG	1/1	1	0/1	5.400-5.400	5.40	6.000	11.000	9.57
BARIUM	MG/KG	2/2	2	0/2	64.000-65.400	64.70	6.000	11.000	119
BERYLLIUM	MG/KG	0/2	2	0/2			1.100	1.100	0.620
CADMIUM	MG/KG	2/2	2	2/2	1.100-1.200	1.15	6.000	11.000	0.910
CALCIUM	MG/KG	2/2	2	0/2	122000.000-144000.000	133000.00	6.000	11.000	150000
CHROMIUM	MG/KG	2/2	2	0/2	11.300-11.300	11.30	6.000	11.000	20.7
COBALT	MG/KG	2/2	2	0/2	6.500-7.700	7.10	6.000	11.000	15.7
COPPER	MG/KG	1/2	2	0/2	15.600-15.600	15.60	15.800	15.800	20.0
CYANIDE	MG/KG	0/2	2	0/2			0.280	0.290	.17
IRON	MG/KG	2/2	2	0/2	16300.000-17600.000	16950.00	6.000	11.000	30700
LEAD	MG/KG	2/2	2	0/2	7.500-8.300	7.90	6.000	11.000	15.6
MAGNESIUM	MG/KG	2/2	2	0/2	32400.000-35400.000	33900.00	6.000	11.000	42600
MANGANESE	MG/KG	2/2	2	0/2	464.000-573.000	518.50	6.000	11.000	1300
MERCURY	MG/KG	0/2	2	0/2			0.060	0.060	0.29
MOLYBDENUM	MG/KG	0/2	2	0/2			3.800	3.900	2.7
NICKEL	MG/KG	2/2	2	0/2	17.000-18.100	17.55	6.000	11.000	34.3
POTASSIUM	MG/KG	2/2	2	0/2	1440.000-1750.000	1595.00	6.000	11.000	1980
SELENIUM	MG/KG	0/1	1	0/1			2.300	2.300	NA
SILICON	MG/KG	1/1	1	0/1	322.000-322.000	322.00	6.000	11.000	1590
SODIUM	MG/KG	1/2	2	0/2	176.000-176.000	176.00	139.000	139.000	285

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
THALLIUM	MG/KG	1/2	2	0/2	0.330-0.330	0.33	0.230	0.230	0.49
VANADIUM	MG/KG	2/2	2	0/2	22.100-23.800	22.95	6.000	11.000	37.8
ZINC	MG/KG	2/2	2	0/2	53.300-58.100	55.70	6.000	11.000	82.0

001445

A1 5 6 9 9

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 15 - 20 FEET									
ALUMINUM	MG/KG	1/1	1	0/1	7640.000-7640.000	7640.00	6.000	6.000	16100
ANTIMONY	MG/KG	0/1	1	0/1			6.900	6.900	NA
ARSENIC	MG/KG	1/1	1	0/1	5.600-5.600	5.60	6.000	6.000	9.57
BARIUM	MG/KG	1/1	1	0/1	56.700-56.700	56.70	6.000	6.000	119
BERYLLIUM	MG/KG	1/1	1	1/1	1.000-1.000	1.00	6.000	6.000	0.620
CADMIUM	MG/KG	1/1	1	1/1	4.800-4.800	4.80	6.000	6.000	0.910
CALCIUM	MG/KG	1/1	1	0/1	102000.000-102000.000	102000.00	6.000	6.000	150000
CHROMIUM	MG/KG	1/1	1	1/1	23.500-23.500	23.50	6.000	6.000	20.7
COBALT	MG/KG	1/1	1	0/1	11.000-11.000	11.00	6.000	6.000	15.7
COPPER	MG/KG	1/1	1	0/1	14.700-14.700	14.70	6.000	6.000	20.0
CYANIDE	MG/KG	0/1	1	0/1			0.290	0.290	.17
IRON	MG/KG	1/1	1	0/1	18000.000-18000.000	18000.00	6.000	6.000	30700
LEAD	MG/KG	1/1	1	0/1	10.200-10.200	10.20	6.000	6.000	15.6
MAGNESIUM	MG/KG	1/1	1	0/1	28700.000-28700.000	28700.00	6.000	6.000	42600
MANGANESE	MG/KG	1/1	1	0/1	476.000-476.000	476.00	6.000	6.000	1300
MERCURY	MG/KG	0/1	1	0/1			0.120	0.120	0.29
MOLYBDENUM	MG/KG	0/1	1	0/1			2.300	2.300	2.7
NICKEL	MG/KG	1/1	1	0/1	29.800-29.800	29.80	6.000	6.000	34.3
POTASSIUM	MG/KG	1/1	1	0/1	1040.000-1040.000	1040.00	6.000	6.000	1980
SELENIUM	MG/KG	0/1	1	0/1			0.460	0.460	NA
SILVER	MG/KG	1/1	1	1/1	2.400-2.400	2.40	6.000	6.000	NA
SODIUM	MG/KG	1/1	1	0/1	165.000-165.000	165.00	6.000	6.000	285

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
THALLIUM	MG/KG	0/1	1	0/1			0.230	0.230	0.49
VANADIUM	MG/KG	1/1	1	0/1	23.400-23.400	23.40	6.000	6.000	37.8
ZINC	MG/KG	1/1	1	0/1	44.400-44.400	44.40	6.000	6.000	82.0

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/32	32	0/32			5.000	13000.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/32	32	0/32			5.000	13000.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/32	32	0/32			5.000	13000.000	
1,1-DICHLOROETHANE	UG/KG	0/32	32	0/32			5.000	13000.000	
1,1-DICHLOROETHENE	UG/KG	0/32	32	0/32			5.000	13000.000	
1,2-DICHLOROETHANE	UG/KG	0/32	32	0/32			5.000	13000.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/32	32	0/32			5.000	13000.000	
1,2-DICHLOROPROPANE	UG/KG	0/32	32	0/32			5.000	13000.000	
2-BUTANONE	UG/KG	1/17	17	1/17	74.000-74.000	74.00	11.000	13000.000	
2-HEXANONE	UG/KG	1/18	18	1/18	2.000-2.000	2.00	11.000	13000.000	
4-METHYL-2-PENTANONE	UG/KG	0/18	18	0/18			11.000	13000.000	
ACETONE	UG/KG	3/32	32	3/32	3.000-160.000	59.33	11.000	13000.000	
BENZENE	UG/KG	1/32	32	1/32	3.000-3.000	3.00	5.000	13000.000	
BROMODICHLOROMETHANE	UG/KG	0/32	32	0/32			5.000	13000.000	
BROMOFORM	UG/KG	0/32	32	0/32			5.000	13000.000	
BROMOMETHANE	UG/KG	0/32	32	0/32			11.000	13000.000	
CARBON DISULFIDE	UG/KG	0/26	26	0/26			5.000	13000.000	
CARBON TETRACHLORIDE	UG/KG	0/32	32	0/32			5.000	13000.000	
CHLOROBENZENE	UG/KG	1/32	32	1/32	10.000-10.000	10.00	5.000	13000.000	
CHLOROETHANE	UG/KG	0/32	32	0/32			11.000	13000.000	
CHLOROFORM	UG/KG	0/32	32	0/32			5.000	13000.000	
CHLOROMETHANE	UG/KG	0/32	32	0/32			8.000	13000.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/32	32	0/32			5.000	13000.000	
DIBROMOCHLOROMETHANE	UG/KG	0/32	32	0/32			5.000	13000.000	
ETHYLBENZENE	UG/KG	0/32	32	0/32			5.000	13000.000	
METHYLENE CHLORIDE	UG/KG	4/32	32	4/32	2.000-28.000	17.25	11.000	13000.000	
STYRENE	UG/KG	0/32	32	0/32			5.000	13000.000	
TETRACHLOROETHENE	UG/KG	1/32	32	1/32	2.000-2.000	2.00	5.000	13000.000	
TOLUENE	UG/KG	6/32	32	6/32	1.000-10.000	5.50	5.000	13000.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/32	32	0/32			5.000	13000.000	
TRICHLOROETHENE	UG/KG	2/32	32	2/32	4.000-6.000	5.00	5.000	13000.000	
VINYL ACETATE	UG/KG	0/31	31	0/31			11.000	13000.000	
VINYL CHLORIDE	UG/KG	0/32	32	0/32			11.000	13000.000	
XYLENES, TOTAL	UG/KG	1/32	32	1/32	2.000-2.000	2.00	5.000	13000.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
1,1-DICHLOROETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
1,1-DICHLOROETHENE	UG/KG	0/13	13	0/13			11.000	13000.000	
1,2-DICHLOROETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/13	13	0/13			11.000	13000.000	
1,2-DICHLOROPROPANE	UG/KG	0/13	13	0/13			11.000	13000.000	
2-BUTANONE	UG/KG	0/5	5	0/5			11.000	13000.000	
2-HEXANONE	UG/KG	0/5	5	0/5			11.000	13000.000	
4-METHYL-2-PENTANONE	UG/KG	0/5	5	0/5			11.000	13000.000	
ACETONE	UG/KG	0/13	13	0/13			11.000	13000.000	
BENZENE	UG/KG	0/13	13	0/13			11.000	13000.000	
BROMODICHLOROMETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
BROMOFORM	UG/KG	0/13	13	0/13			11.000	13000.000	
BROMOMETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
CARBON DISULFIDE	UG/KG	0/13	13	0/13			11.000	13000.000	
CARBON TETRACHLORIDE	UG/KG	0/13	13	0/13			11.000	13000.000	
CHLOROBENZENE	UG/KG	0/13	13	0/13			11.000	13000.000	
CHLOROETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
CHLOROFORM	UG/KG	0/13	13	0/13			11.000	13000.000	
CHLOROMETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/13	13	0/13			11.000	13000.000	
DIBROMOCHLOROMETHANE	UG/KG	0/13	13	0/13			11.000	13000.000	
ETHYLBENZENE	UG/KG	0/13	13	0/13			11.000	13000.000	
METHYLENE CHLORIDE	UG/KG	2/13	13	2/13	1.000-4.000	2.50	11.000	15000.000	
STYRENE	UG/KG	0/13	13	0/13			11.000	13000.000	
TETRACHLOROETHENE	UG/KG	0/13	13	0/13			11.000	13000.000	
TOLUENE	UG/KG	1/13	13	1/13	13.000-13.000	13.00	11.000	13000.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/13	13	0/13			11.000	13000.000	
TRICHLOROETHENE	UG/KG	0/13	13	0/13			11.000	13000.000	
VINYL ACETATE	UG/KG	0/13	13	0/13			11.000	13000.000	
VINYL CHLORIDE	UG/KG	0/13	13	0/13			11.000	13000.000	
XYLENES, TOTAL	UG/KG	0/13	13	0/13			11.000	13000.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/20	20	1/20	2.000-2.000	2.00	5.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/20	20	0/20			5.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/20	20	0/20			5.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/20	20	0/20			5.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/20	20	0/20			5.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/20	20	0/20			5.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/20	20	0/20			5.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/20	20	0/20			5.000	12.000	
2-BUTANONE	UG/KG	0/13	13	0/13			11.000	12.000	
2-HEXANONE	UG/KG	0/18	18	0/18			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	2/18	18	2/18	3.000-4.000	3.50	11.000	12.000	
ACETONE	UG/KG	3/20	20	3/20	4.000-13.000	7.67	11.000	19.000	
BENZENE	UG/KG	0/20	20	0/20			5.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/20	20	0/20			5.000	12.000	
BROMOFORM	UG/KG	0/20	20	0/20			5.000	12.000	
BROMOMETHANE	UG/KG	0/20	20	0/20			11.000	12.000	
CARBON DISULFIDE	UG/KG	1/20	20	1/20	1.000-1.000	1.00	5.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/20	20	0/20			5.000	12.000	
CHLOROBENZENE	UG/KG	0/20	20	0/20			5.000	12.000	
CHLOROETHANE	UG/KG	0/20	20	0/20			11.000	12.000	
CHLOROFORM	UG/KG	0/20	20	0/20			5.000	12.000	
CHLOROMETHANE	UG/KG	1/20	20	1/20	12.000-12.000	12.00	11.000	12.000	

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/20	20	0/20			5.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/20	20	0/20			5.000	12.000	
ETHYLBENZENE	UG/KG	0/20	20	0/20			5.000	12.000	
METHYLENE CHLORIDE	UG/KG	1/20	20	1/20	6.000-6.000	6.00	6.000	46.000	
STYRENE	UG/KG	0/20	20	0/20			5.000	12.000	
TETRACHLOROETHENE	UG/KG	0/20	20	0/20			5.000	12.000	
TOLUENE	UG/KG	2/20	20	2/20	1.000-2.000	1.50	5.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/20	20	0/20			5.000	12.000	
TRICHLOROETHENE	UG/KG	0/20	20	0/20			5.000	12.000	
VINYL ACETATE	UG/KG	0/20	20	0/20			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/20	20	0/20			11.000	12.000	
XYLENES, TOTAL	UG/KG	0/20	20	0/20			5.000	12.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES									
DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	11.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			6.000	11.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	11.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	11.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			6.000	11.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	11.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			6.000	11.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			6.000	11.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/3	3	0/3			4.000	11.000	
BENZENE	UG/KG	0/3	3	0/3			6.000	11.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			6.000	11.000	
BROMOFORM	UG/KG	0/3	3	0/3			6.000	11.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/3	3	0/3			6.000	11.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			6.000	11.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			6.000	11.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	11.000	
CHLOROFORM	UG/KG	0/3	3	0/3			6.000	11.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	11.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			6.000	11.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			6.000	11.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			6.000	11.000	
METHYLENE CHLORIDE	UG/KG	1/3	3	1/3	4.000-4.000	4.00	11.000	12.000	
STYRENE	UG/KG	0/3	3	0/3			6.000	11.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			6.000	11.000	
TOLUENE	UG/KG	1/3	3	1/3	1.000-1.000	1.00	11.000	11.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			6.000	11.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			6.000	11.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/3	3	0/3			6.000	11.000	

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
2-HEXANONE	UG/KG	0/1	1	0/1			11.000	11.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			11.000	11.000	
ACETONE	UG/KG	0/1	1	0/1			13.000	13.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			11.000	11.000	
CHLOROFORM	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			11.000	11.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			18.000	18.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	1/1	1	1/1	14.000-14.000	14.00	6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			11.000	11.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			11.000	11.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			6.000	6.000	
2-BUTANONE	UG/KG	1/1	1	1/1	87.000-87.000	87.00	6.000	6.000	
2-HEXANONE	UG/KG	0/1	1	0/1			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			12.000	12.000	
ACETONE	UG/KG	0/1	1	0/1			12.000	12.000	
BENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOFORM	UG/KG	0/1	1	0/1			6.000	6.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			12.000	12.000	
CHLOROFORM	UG/KG	1/1	1	1/1	2.000-2.000	2.00	6.000	6.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			12.000	12.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			6.000	6.000	
ETHYLBENZENE	UG/KG	0/1	1	0/1			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			9.000	9.000	
STYRENE	UG/KG	0/1	1	0/1			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			6.000	6.000	
TOLUENE	UG/KG	1/1	1	1/1	4.000-4.000	4.00	6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			6.000	6.000	
TRICHLOROETHENE	UG/KG	1/1	1	1/1	7.000-7.000	7.00	6.000	6.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/1	1	0/1			6.000	6.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/31	31	0/31			360.000	920.000	
1,2-DICHLOROBENZENE	UG/KG	0/31	31	0/31			360.000	920.000	
1,3-DICHLOROBENZENE	UG/KG	0/31	31	0/31			360.000	920.000	
1,4-DICHLOROBENZENE	UG/KG	0/31	31	0/31			360.000	920.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/31	31	0/31			890.000	2200.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/31	31	0/31			360.000	920.000	
2,4-DICHLOROPHENOL	UG/KG	0/31	31	0/31			360.000	920.000	
2,4-DIMETHYLPHENOL	UG/KG	0/31	31	0/31			360.000	920.000	
2,4-DINITROPHENOL	UG/KG	0/26	26	0/26			890.000	2200.000	
2,4-DINITROTOLUENE	UG/KG	0/31	31	0/31			360.000	920.000	
2,6-DINITROTOLUENE	UG/KG	0/31	31	0/31			360.000	920.000	
2-BENZYL-4-CHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/31	31	0/31			360.000	920.000	
2-CHLOROPHENOL	UG/KG	0/31	31	0/31			360.000	920.000	
2-METHYLNAPHTHALENE	UG/KG	0/31	31	0/31			360.000	920.000	
2-METHYLPHENOL	UG/KG	0/31	31	0/31			360.000	920.000	
2-NITROANILINE	UG/KG	0/31	31	0/31			890.000	2200.000	
2-NITROPHENOL	UG/KG	0/31	31	0/31			360.000	920.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/31	31	0/31			360.000	920.000	
3-NITROANILINE	NONE	0/25	25	0/25			890.000	2200.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/29	29	0/29			890.000	2200.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/31	31	0/31			360.000	920.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLORO-3-METHYLPHENOL	UG/KG	0/31	31	0/31			360.000	920.000	
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/31	31	0/31			360.000	920.000	
4-METHYLPHENOL	UG/KG	0/31	31	0/31			360.000	920.000	
4-NITROANILINE	UG/KG	0/24	24	0/24			890.000	2200.000	
4-NITROPHENOL	UG/KG	0/30	30	0/30			890.000	2200.000	
ACENAPHTHENE	UG/KG	0/31	31	0/31			360.000	920.000	
ACENAPHTHYLENE	UG/KG	1/31	31	1/31	53.000-53.000	53.00	130.000	920.000	
ANTHRACENE	UG/KG	2/31	31	2/31	68.000-120.000	94.00	360.000	920.000	
BENZO(A)ANTHRACENE	UG/KG	9/31	31	9/31	26.000-630.000	140.44	360.000	920.000	
BENZO(A)PYRENE	UG/KG	4/31	31	4/31	42.000-820.000	271.50	270.000	920.000	
BENZO(B)FLUORANTHENE	UG/KG	9/31	31	9/31	39.000-680.000	144.56	230.000	920.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/31	31	2/31	120.000-230.000	175.00	360.000	920.000	
BENZO(K)FLUORANTHENE	UG/KG	6/31	31	6/31	37.000-660.000	167.67	230.000	920.000	
BENZOIC ACID	UG/KG	0/28	28	0/28			890.000	4500.000	
BENZYL ALCOHOL	UG/KG	0/29	29	0/29			360.000	920.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/31	31	0/31			360.000	920.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/31	31	0/31			360.000	920.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	1/31	31	1/31	44.000-44.000	44.00	360.000	920.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	10/31	31	10/31	45.000-3700.000	1044.10	360.000	840.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/30	30	0/30			360.000	920.000	
CARBAZOLE	UG/KG	1/19	19	1/19	71.000-71.000	71.00	360.000	920.000	
CHRYSENE	UG/KG	9/31	31	9/31	40.000-720.000	176.11	360.000	920.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-BUTYL PHTHALATE	UG/KG	3/31	31	3/31	41.000-63.000	48.67	360.000	920.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/30	30	0/30			360.000	920.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	3/31	31	3/31	39.000-240.000	115.67	360.000	920.000	
DIBENZOFURAN	UG/KG	0/31	31	0/31			360.000	920.000	
DIETHYL PHTHALATE	UG/KG	0/31	31	0/31			360.000	920.000	
DIMETHYL PHTHALATE	UG/KG	0/31	31	0/31			360.000	920.000	
FLUORANTHENE	UG/KG	11/31	31	11/31	52.000-1300.000	248.46	360.000	920.000	
FLUORENE	UG/KG	0/31	31	0/31			360.000	920.000	
HEXACHLOROBENZENE	UG/KG	0/31	31	0/31			360.000	920.000	
HEXACHLOROBUTADIENE	UG/KG	0/31	31	0/31			360.000	920.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/31	31	0/31			360.000	920.000	
HEXACHLOROETHANE	UG/KG	0/31	31	0/31			360.000	920.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	4/31	31	4/31	40.000-580.000	232.50	360.000	920.000	
ISOPHORONE	UG/KG	0/31	31	0/31			360.000	920.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/31	31	0/31			360.000	920.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/31	31	0/31			360.000	920.000	
NAPHTHALENE	UG/KG	0/31	31	0/31			360.000	920.000	
NITROBENZENE	UG/KG	0/31	31	0/31			360.000	920.000	
P-CHLOROANILINE	UG/KG	0/25	25	0/25			360.000	920.000	
PENTACHLOROPHENOL	UG/KG	0/31	31	0/31			890.000	2200.000	
PHENANTHRENE	UG/KG	5/31	31	5/31	65.000-640.000	203.40	360.000	920.000	
PHENOL	UG/KG	0/31	31	0/31			360.000	920.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
PYRENE	UG/KG	11/31	31	11/31	39.000-1100.000	213.55	360.000	920.000	
TRIBUTYL PHOSPHATE	UG/KG	0/2	2	0/2			380.000	430.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			17000.000	17000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			17000.000	17000.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
2-METHYLNAPHTHALENE	UG/KG	1/1	1	1/1	740.000-740.000	740.00	4.800	27.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			17000.000	17000.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			6900.000	6900.000	
3-NITROANILINE	NONE	0/1	1	0/1			17000.000	17000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			17000.000	17000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			3500.000	3500.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			3500.000	3500.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			17000.000	17000.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			17000.000	17000.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
ACENAPHTHYLENE	UG/KG	1/1	1	1/1	430.000-430.000	430.00	4.800	27.000	
ANTHRACENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
BENZO(A)ANTHRACENE	UG/KG	1/1	1	1/1	1300.000-1300.000	1300.00	4.800	27.000	
BENZO(A)PYRENE	UG/KG	1/1	1	1/1	980.000-980.000	980.00	4.800	27.000	
BENZO(B)FLUORANTHENE	UG/KG	1/1	1	1/1	2400.000-2400.000	2400.00	4.800	27.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			17000.000	17000.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			3500.000	3500.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			3500.000	3500.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			3500.000	3500.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			3500.000	3500.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			3500.000	3500.000	
CHRYSENE	UG/KG	1/1	1	1/1	1100.000-1100.000	1100.00	4.800	27.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			3500.000	3500.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			3500.000	3500.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: .5 - 1 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
DIBENZOFURAN	UG/KG	1/1	1	1/1	2500.000-2500.000	2500.00	4.800	27.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			3500.000	3500.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			3500.000	3500.000	
FLUORANTHENE	UG/KG	1/1	1	1/1	2600.000-2600.000	2600.00	4.800	27.000	
FLUORENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			3500.000	3500.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
ISOPHORONE	UG/KG	0/1	1	0/1			3500.000	3500.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			3500.000	3500.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			3500.000	3500.000	
NAPHTHALENE	UG/KG	1/1	1	1/1	1100.000-1100.000	1100.00	4.800	27.000	
NITROBENZENE	UG/KG	0/1	1	0/1			3500.000	3500.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			3500.000	3500.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			17000.000	17000.000	
PHENANTHRENE	UG/KG	1/1	1	1/1	6800.000-6800.000	6800.00	4.800	27.000	
PHENOL	UG/KG	0/1	1	0/1			3500.000	3500.000	
PYRENE	UG/KG	1/1	1	1/1	2700.000-2700.000	2700.00	4.800	27.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/12	12	0/12			370.000	480.000	
1,2-DICHLOROBENZENE	UG/KG	0/12	12	0/12			370.000	480.000	
1,3-DICHLOROBENZENE	UG/KG	0/12	12	0/12			370.000	480.000	
1,4-DICHLOROBENZENE	UG/KG	0/12	12	0/12			370.000	480.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/12	12	0/12			920.000	2300.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/12	12	0/12			370.000	480.000	
2,4-DICHLOROPHENOL	UG/KG	0/12	12	0/12			370.000	480.000	
2,4-DIMETHYLPHENOL	UG/KG	0/12	12	0/12			370.000	480.000	
2,4-DINITROPHENOL	UG/KG	0/12	12	0/12			920.000	2300.000	
2,4-DINITROTOLUENE	UG/KG	0/12	12	0/12			370.000	480.000	
2,6-DINITROTOLUENE	UG/KG	0/12	12	0/12			370.000	480.000	
2-CHLORONAPHTHALENE	UG/KG	0/12	12	0/12			370.000	480.000	
2-CHLOROPHENOL	UG/KG	0/12	12	0/12			370.000	480.000	
2-METHYLNAPHTHALENE	UG/KG	0/12	12	0/12			370.000	480.000	
2-METHYLPHENOL	UG/KG	0/12	12	0/12			370.000	480.000	
2-NITROANILINE	UG/KG	0/12	12	0/12			920.000	2300.000	
2-NITROPHENOL	UG/KG	0/12	12	0/12			370.000	480.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/13	13	0/13			370.000	950.000	
3-NITROANILINE	NONE	0/12	12	0/12			920.000	2300.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/12	12	0/12			920.000	2300.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/12	12	0/12			370.000	480.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/12	12	0/12			370.000	480.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/12	12	0/12			370.000	480.000	
4-METHYLPHENOL	UG/KG	0/12	12	0/12			370.000	480.000	
4-NITROANILINE	UG/KG	0/12	12	0/12			920.000	2300.000	
4-NITROPHENOL	UG/KG	0/12	12	0/12			920.000	2300.000	
ACENAPHTHENE	UG/KG	0/12	12	0/12			370.000	480.000	
ACENAPHTHYLENE	UG/KG	0/12	12	0/12			370.000	480.000	
ANTHRACENE	UG/KG	0/13	13	0/13			370.000	480.000	
BENZO(A)ANTHRACENE	UG/KG	1/13	13	1/13	53.000-53.000	53.00	370.000	480.000	
BENZO(A)PYRENE	UG/KG	0/13	13	0/13			370.000	480.000	
BENZO(B)FLUORANTHENE	UG/KG	1/13	13	1/13	51.000-51.000	51.00	370.000	480.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/13	13	0/13			370.000	480.000	
BENZO(K)FLUORANTHENE	UG/KG	1/13	13	1/13	42.000-42.000	42.00	370.000	480.000	
BENZOIC ACID	UG/KG	0/12	12	0/12			920.000	2300.000	
BENZYL ALCOHOL	UG/KG	0/12	12	0/12			370.000	480.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/12	12	0/12			370.000	480.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/12	12	0/12			370.000	480.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/12	12	0/12			370.000	480.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	6/13	13	6/13	46.000-71.000	57.17	370.000	430.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/13	13	0/13			370.000	480.000	
CARBAZOLE	UG/KG	0/9	9	0/9			370.000	400.000	
CHRYSENE	UG/KG	1/13	13	1/13	69.000-69.000	69.00	370.000	480.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/13	13	1/13	41.000-41.000	41.00	370.000	480.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/13	13	0/13			370.000	480.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/13	13	0/13			370.000	480.000	
DIBENZOFURAN	UG/KG	0/12	12	0/12			370.000	480.000	
DIETHYL PHTHALATE	UG/KG	0/12	12	0/12			370.000	480.000	
DIMETHYL PHTHALATE	UG/KG	0/12	12	0/12			370.000	480.000	
FLUORANTHENE	UG/KG	1/13	13	1/13	140.000-140.000	140.00	370.000	480.000	
FLUORENE	UG/KG	0/12	12	0/12			370.000	480.000	
HEXACHLOROBENZENE	UG/KG	0/12	12	0/12			370.000	480.000	
HEXACHLOROBUTADIENE	UG/KG	0/12	12	0/12			370.000	480.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/12	12	0/12			370.000	480.000	
HEXACHLOROETHANE	UG/KG	0/12	12	0/12			370.000	480.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/13	13	0/13			370.000	480.000	
ISOPHORONE	UG/KG	0/12	12	0/12			370.000	480.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/12	12	0/12			370.000	480.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/12	12	0/12			370.000	480.000	
NAPHTHALENE	UG/KG	0/12	12	0/12			370.000	480.000	
NITROBENZENE	UG/KG	0/12	12	0/12			370.000	480.000	
P-CHLOROANILINE	UG/KG	0/12	12	0/12			370.000	480.000	
PENTACHLOROPHENOL	UG/KG	0/12	12	0/12			920.000	2300.000	
PHENANTHRENE	UG/KG	1/13	13	1/13	100.000-100.000	100.00	370.000	480.000	
PHENOL	UG/KG	0/12	12	0/12			370.000	480.000	
PYRENE	UG/KG	1/13	13	1/13	110.000-110.000	110.00	370.000	480.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
TRIBUTYL PHOSPHATE	UG/KG	0/4	4	0/4			420.000	480.000	

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001501

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/22	22	0/22			360.000	3500.000	
1,2-DICHLOROBENZENE	UG/KG	0/22	22	0/22			360.000	3500.000	
1,3-DICHLOROBENZENE	UG/KG	0/22	22	0/22			360.000	3500.000	
1,4-DICHLOROBENZENE	UG/KG	0/22	22	0/22			360.000	3500.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/22	22	0/22			940.000	17000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/22	22	0/22			360.000	3500.000	
2,4-DICHLOROPHENOL	UG/KG	0/22	22	0/22			360.000	3500.000	
2,4-DIMETHYLPHENOL	UG/KG	0/22	22	0/22			360.000	3500.000	
2,4-DINITROPHENOL	UG/KG	0/22	22	0/22			940.000	17000.000	
2,4-DINITROTOLUENE	UG/KG	0/22	22	0/22			360.000	3500.000	
2,6-DINITROTOLUENE	UG/KG	0/22	22	0/22			360.000	3500.000	
2-CHLORONAPHTHALENE	UG/KG	0/22	22	0/22			360.000	3500.000	
2-CHLOROPHENOL	UG/KG	1/22	22	1/22	44.000-44.000	44.00	360.000	3500.000	
2-METHYLNAPHTHALENE	UG/KG	0/22	22	0/22			360.000	3500.000	
2-METHYLPHENOL	UG/KG	0/22	22	0/22			360.000	3500.000	
2-NITROANILINE	UG/KG	0/22	22	0/22			940.000	17000.000	
2-NITROPHENOL	UG/KG	0/22	22	0/22			360.000	3500.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/24	24	0/24			380.000	210000.000	
3-NITROANILINE	NONE	0/22	22	0/22			940.000	17000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/22	22	0/22			940.000	17000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/22	22	0/22			360.000	3500.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/22	22	0/22			360.000	3500.000	

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001502

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/22	22	0/22			360.000	3500.000	
4-METHYLPHENOL	UG/KG	0/22	22	0/22			360.000	3500.000	
4-NITROANILINE	UG/KG	0/22	22	0/22			940.000	17000.000	
4-NITROPHENOL	UG/KG	0/22	22	0/22			940.000	17000.000	
ACENAPHTHENE	UG/KG	0/22	22	0/22			360.000	3500.000	
ACENAPHTHYLENE	UG/KG	2/22	22	2/22	1300.000-2100.000	1700.00	360.000	420.000	
ANTHRACENE	UG/KG	2/24	24	2/24	780.000-1100.000	940.00	360.000	100000.000	
BENZO(A)ANTHRACENE	UG/KG	5/24	24	5/24	62.000-17000.000	8252.40	360.000	420.000	
BENZO(A)PYRENE	UG/KG	3/24	24	3/24	5200.000-8600.000	6933.33	360.000	100000.000	
BENZO(B)FLUORANTHENE	UG/KG	5/24	24	5/24	150.000-23000.000	13770.00	360.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/24	24	2/24	5300.000-5900.000	5600.00	360.000	100000.000	
BENZO(K)FLUORANTHENE	UG/KG	0/24	24	0/24			360.000	100000.000	
BENZOIC ACID	UG/KG	1/18	18	1/18	59.000-59.000	59.00	940.000	17000.000	
BENZYL ALCOHOL	UG/KG	0/22	22	0/22			360.000	3500.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/22	22	0/22			360.000	3500.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/22	22	0/22			360.000	3500.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/22	22	0/22			360.000	3500.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	12/24	24	12/24	62.000-3600.000	1099.33	370.000	100000.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/24	24	0/24			360.000	100000.000	
CARBAZOLE	UG/KG	0/2	2	0/2			380.000	400.000	
CHRYSENE	UG/KG	5/24	24	5/24	62.000-17000.000	7612.40	360.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/24	24	0/24			360.000	100000.000	

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001503

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/24	24	0/24			360.000	100000.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/24	24	2/24	900.000-1000.000	950.00	360.000	100000.000	
DIBENZOFURAN	UG/KG	0/22	22	0/22			360.000	3500.000	
DIETHYL PHTHALATE	UG/KG	1/22	22	1/22	59.000-59.000	59.00	360.000	3500.000	
DIMETHYL PHTHALATE	UG/KG	0/22	22	0/22			360.000	3500.000	
FLUORANTHENE	UG/KG	5/24	24	5/24	79.000-34000.000	15835.80	360.000	420.000	
FLUORENE	UG/KG	0/22	22	0/22			360.000	3500.000	
HEXACHLOROBENZENE	UG/KG	0/22	22	0/22			360.000	3500.000	
HEXACHLOROBUTADIENE	UG/KG	0/22	22	0/22			360.000	3500.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/22	22	0/22			360.000	3500.000	
HEXACHLOROETHANE	UG/KG	0/22	22	0/22			360.000	3500.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/24	24	2/24	4200.000-4900.000	4550.00	360.000	100000.000	
ISOPHORONE	UG/KG	0/22	22	0/22			360.000	3500.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/22	22	0/22			360.000	3500.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/22	22	0/22			360.000	3500.000	
NAPHTHALENE	UG/KG	0/22	22	0/22			360.000	3500.000	
NITROBENZENE	UG/KG	0/22	22	0/22			360.000	3500.000	
P-CHLOROANILINE	UG/KG	0/22	22	0/22			360.000	3500.000	
PENTACHLOROPHENOL	UG/KG	0/22	22	0/22			940.000	17000.000	
PHENANTHRENE	UG/KG	4/24	24	4/24	2600.000-18000.000	8800.00	360.000	420.000	
PHENOL	UG/KG	1/22	22	1/22	230.000-230.000	230.00	370.000	3500.000	
PYRENE	UG/KG	5/24	24	5/24	92.000-30000.000	15358.40	360.000	420.000	

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
1,2-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
1,3-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
1,4-DICHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			940.000	950.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2,4-DICHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2,4-DIMETHYLPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2,4-DINITROPHENOL	UG/KG	0/2	2	0/2			940.000	950.000	
2,4-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	380.000	
2,6-DINITROTOLUENE	UG/KG	0/2	2	0/2			380.000	380.000	
2-CHLORONAPHTHALENE	UG/KG	0/2	2	0/2			380.000	380.000	
2-CHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
2-METHYLNAPHTHALENE	UG/KG	0/2	2	0/2			380.000	380.000	
2-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	950.000	
2-NITROANILINE	UG/KG	0/2	2	0/2			380.000	380.000	
2-NITROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/2	2	0/2			380.000	380.000	
-NITROANILINE	NONE	0/2	2	0/2			940.000	950.000	
,6-DINITRO-2-METHYLPHENOL	UG/KG	0/2	2	0/2			940.000	950.000	
BROMOPHENYL PHENYL ETHER	UG/KG	0/2	2	0/2			380.000	380.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/2	2	0/2			380.000	380.000	
4-METHYLPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
4-NITROANILINE	UG/KG	0/2	2	0/2			940.000	950.000	
4-NITROPHENOL	UG/KG	0/2	2	0/2			940.000	950.000	
ACENAPHTHENE	UG/KG	0/2	2	0/2			380.000	380.000	
ACENAPHTHYLENE	UG/KG	0/2	2	0/2			380.000	380.000	
ANTHRACENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(A)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(A)PYRENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(B)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZO(K)FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	380.000	
BENZOIC ACID	UG/KG	0/2	2	0/2			380.000	950.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			380.000	380.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/2	2	0/2			380.000	380.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/2	2	0/2			380.000	380.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/2	2	0/2			380.000	380.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/2	2	1/2	190.000-190.000	190.00	380.000	380.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
CARBAZOLE	UG/KG	0/2	2	0/2			380.000	380.000	
CHRYSENE	UG/KG	0/2	2	0/2			380.000	380.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/2	2	0/2			380.000	380.000	
DIBENZOFURAN	UG/KG	0/2	2	0/2			380.000	380.000	
DIETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
DIMETHYL PHTHALATE	UG/KG	0/2	2	0/2			380.000	380.000	
FLUORANTHENE	UG/KG	0/2	2	0/2			380.000	380.000	
FLUORENE	UG/KG	0/2	2	0/2			380.000	380.000	
HEXACHLOROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
HEXACHLOROBUTADIENE	UG/KG	0/2	2	0/2			380.000	380.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/2	2	0/2			380.000	380.000	
HEXACHLOROETHANE	UG/KG	0/2	2	0/2			380.000	380.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/2	2	0/2			380.000	380.000	
ISOPHORONE	UG/KG	0/2	2	0/2			380.000	380.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/2	2	0/2			380.000	380.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/2	2	0/2			380.000	380.000	
NAPHTHALENE	UG/KG	0/2	2	0/2			380.000	380.000	
NITROBENZENE	UG/KG	0/2	2	0/2			380.000	380.000	
P-CHLOROANILINE	UG/KG	0/2	2	0/2			380.000	380.000	
PENTACHLOROPHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
PHENANTHRENE	UG/KG	0/2	2	0/2			940.000	950.000	
PHENOL	UG/KG	0/2	2	0/2			380.000	380.000	
PYRENE	UG/KG	0/2	2	0/2			380.000	380.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
2,4-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-CHLOROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
2-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
2-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
2-NITROPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/1	1	0/1			770.000	770.000	
3-NITROANILINE	NONE	0/1	1	0/1			1900.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
4-METHYLPHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
4-NITROANILINE	UG/KG	0/1	1	0/1			1900.000	1900.000	
4-NITROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
ACENAPHTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
ACENAPHTHYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(A)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
BENZOIC ACID	UG/KG	0/1	1	0/1			1900.000	1900.000	
BENZYL ALCOHOL	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/1	1	0/1			390.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
CHRYSENE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
DIBENZO(A,H)ANTHRACENE	UG/KG	0/1	1	0/1			390.000	390.000	
DIBENZOFURAN	UG/KG	0/1	1	0/1			390.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORANTHENE	UG/KG	0/1	1	0/1			390.000	390.000	
FLUORENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/1	1	0/1			390.000	390.000	
HEXACHLOROETHANE	UG/KG	0/1	1	0/1			390.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	
ISOPHORONE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/1	1	0/1			390.000	390.000	
NAPHTHALENE	UG/KG	0/1	1	0/1			390.000	390.000	
NITROBENZENE	UG/KG	0/1	1	0/1			390.000	390.000	
P-CHLOROANILINE	UG/KG	0/1	1	0/1			390.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/1	1	0/1			1900.000	1900.000	
PHENANTHRENE	UG/KG	0/1	1	0/1			390.000	390.000	
PHENOL	UG/KG	0/1	1	0/1			390.000	390.000	
PYRENE	UG/KG	0/1	1	0/1			390.000	390.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/41	41	0/41			3.500	54.000	
4,4'-DDE	UG/KG	1/41	41	1/41	20.000-20.000	20.00	3.500	54.000	
4,4'-DDT	UG/KG	0/41	41	0/41			3.500	54.000	
ALDRIN	UG/KG	0/41	41	0/41			1.800	27.000	
ALPHA-BHC	UG/KG	0/41	41	0/41			1.800	27.000	
ALPHA-CHLORDANE	UG/KG	0/41	41	0/41			1.800	270.000	
AROCLOR-1016	UG/KG	0/41	41	0/41			35.000	270.000	
AROCLOR-1221	UG/KG	0/41	41	0/41			72.000	270.000	
AROCLOR-1232	UG/KG	0/41	41	0/41			35.000	270.000	
AROCLOR-1242	UG/KG	0/41	41	0/41			35.000	270.000	
AROCLOR-1248	UG/KG	0/41	41	0/41			35.000	270.000	
AROCLOR-1254	UG/KG	5/41	41	5/41	11.000-590.000	155.80	35.000	540.000	
AROCLOR-1260	UG/KG	2/41	41	2/41	130.000-240.000	185.00	35.000	540.000	
BETA-BHC	UG/KG	0/41	41	0/41			1.800	27.000	
DELTA-BHC	UG/KG	0/41	41	0/41			1.800	27.000	
DIELDRIN	UG/KG	1/41	41	1/41	20.000-20.000	20.00	3.500	54.000	
ENDOSULFAN II	UG/KG	0/41	41	0/41			3.500	54.000	
ENDOSULFAN SULFATE	UG/KG	0/41	41	0/41			3.500	54.000	
ENDOSULFAN-I	UG/KG	0/41	41	0/41			1.800	27.000	
ENDRIN	UG/KG	0/41	41	0/41			3.500	54.000	
ENDRIN ALDEHYDE	UG/KG	0/20	20	0/20			3.500	7.800	
ENDRIN KETONE	UG/KG	0/41	41	0/41			3.500	54.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/41	41	0/41			1.800	27.000	
GAMMA-CHLORDANE	UG/KG	0/41	41	0/41			1.800	270.000	
HEPTACHLOR	UG/KG	0/41	41	0/41			1.800	27.000	
HEPTACHLOR EPOXIDE	UG/KG	0/41	41	0/41			1.800	27.000	
METHOXYCHLOR	UG/KG	0/41	41	0/41			18.000	270.000	
TOXAPHENE	UG/KG	0/41	41	0/41			180.000	540.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			67.000	67.000	
4,4'-DDE	UG/KG	0/1	1	0/1			67.000	67.000	
4,4'-DDT	UG/KG	0/1	1	0/1			67.000	67.000	
ALDRIN	UG/KG	0/1	1	0/1			34.000	34.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			34.000	34.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			340.000	340.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			340.000	340.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			340.000	340.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			340.000	340.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			340.000	340.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			340.000	340.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			670.000	670.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			670.000	670.000	
BETA-BHC	UG/KG	0/1	1	0/1			34.000	34.000	
DELTA-BHC	UG/KG	0/1	1	0/1			34.000	34.000	
DIELDRIN	UG/KG	0/1	1	0/1			67.000	67.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			67.000	67.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			67.000	67.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			34.000	34.000	
ENDRIN	UG/KG	0/1	1	0/1			67.000	67.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			67.000	67.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			34.000	34.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			340.000	340.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			34.000	34.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			34.000	34.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			340.000	340.000	
TOXAPHENE	UG/KG	0/1	1	0/1			670.000	670.000	

001514

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/12	12	0/12			3.600	24.000	
4,4'-DDE	UG/KG	0/12	12	0/12			3.600	24.000	
4,4'-DDT	UG/KG	0/12	12	0/12			3.600	24.000	
ALDRIN	UG/KG	0/12	12	0/12			1.900	12.000	
ALPHA-BHC	UG/KG	0/12	12	0/12			1.900	12.000	
ALPHA-CHLORDANE	UG/KG	0/12	12	0/12			1.900	120.000	
AROCLOR-1016	UG/KG	0/12	12	0/12			36.000	120.000	
AROCLOR-1221	UG/KG	0/12	12	0/12			74.000	120.000	
AROCLOR-1232	UG/KG	0/12	12	0/12			36.000	120.000	
AROCLOR-1242	UG/KG	0/12	12	0/12			36.000	120.000	
AROCLOR-1248	UG/KG	0/12	12	0/12			36.000	120.000	
AROCLOR-1254	UG/KG	0/12	12	0/12			36.000	240.000	
AROCLOR-1260	UG/KG	0/12	12	0/12			36.000	240.000	
BETA-BHC	UG/KG	0/12	12	0/12			1.900	12.000	
DELTA-BHC	UG/KG	0/12	12	0/12			1.900	12.000	
DIELDRIN	UG/KG	0/12	12	0/12			3.600	24.000	
ENDOSULFAN II	UG/KG	0/12	12	0/12			3.600	24.000	
ENDOSULFAN SULFATE	UG/KG	0/12	12	0/12			3.600	24.000	
ENDOSULFAN-I	UG/KG	0/12	12	0/12			1.900	12.000	
ENDRIN	UG/KG	0/12	12	0/12			3.600	24.000	
ENDRIN ALDEHYDE	UG/KG	0/8	8	0/8			3.600	4.000	
ENDRIN KETONE	UG/KG	0/12	12	0/12			3.600	24.000	

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AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/12	12	0/12			1.900	12.000	
GAMMA-CHLORDANE	UG/KG	0/12	12	0/12			1.900	120.000	
HEPTACHLOR	UG/KG	0/12	12	0/12			1.900	12.000	
HEPTACHLOR EPOXIDE	UG/KG	0/12	12	0/12			1.900	12.000	
METHOXYCHLOR	UG/KG	0/12	12	0/12			19.000	120.000	
TOXAPHENE	UG/KG	0/12	12	0/12			190.000	240.000	

001546

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			3.700	350.000	
4,4'-DDE	UG/KG	0/3	3	0/3			3.700	350.000	
4,4'-DDT	UG/KG	0/3	3	0/3			3.700	350.000	
ALDRIN	UG/KG	0/3	3	0/3			1.900	170.000	
ALPHA-BHC	UG/KG	0/3	3	0/3			1.900	170.000	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			1.900	1700.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			37.000	1700.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			75.000	1700.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			37.000	1700.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			37.000	1700.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			37.000	1700.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			37.000	3500.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			37.000	3500.000	
BETA-BHC	UG/KG	0/3	3	0/3			1.900	170.000	
DELTA-BHC	UG/KG	0/3	3	0/3			1.900	170.000	
DIELDRIN	UG/KG	0/3	3	0/3			3.700	350.000	
ENDOSULFAN II	UG/KG	0/3	3	0/3			3.700	350.000	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			3.700	350.000	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			1.900	170.000	
ENDRIN	UG/KG	0/3	3	0/3			3.700	350.000	
ENDRIN KETONE	UG/KG	0/3	3	0/3			3.700	350.000	
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			1.900	170.000	

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AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			1.900	1700.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			1.900	170.000	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			1.900	170.000	
METHOXYCHLOR	UG/KG	0/3	3	0/3			19.000	1700.000	
TOXAPHENE	UG/KG	0/3	3	0/3			190.000	3500.000	

001518

05/24/94

5699

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			3.700	3.800	
4,4'-DDE	UG/KG	0/1	1	0/1			3.700	3.800	
4,4'-DDT	UG/KG	0/1	1	0/1			3.700	3.800	
ALDRIN	UG/KG	0/1	1	0/1			1.900	2.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			1.900	2.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	2.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			37.000	38.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			75.000	77.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			37.000	38.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			37.000	38.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			37.000	38.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			37.000	38.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			37.000	38.000	
BETA-BHC	UG/KG	0/1	1	0/1			1.900	2.000	
DELTA-BHC	UG/KG	0/1	1	0/1			1.900	2.000	
DIELDRIN	UG/KG	0/1	1	0/1			3.700	3.800	
ENDOSULFAN II	UG/KG	0/1	1	0/1			3.700	3.800	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			3.700	3.800	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			1.900	2.000	
ENDRIN	UG/KG	0/1	1	0/1			3.700	3.800	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			3.700	3.800	
ENDRIN KETONE	UG/KG	0/1	1	0/1			3.700	3.800	

05/24/94

001519

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			1.900	2.000	
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			1.900	2.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			1.900	2.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			1.900	2.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			19.000	20.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	200.000	

001520

05/24/94

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
4,4'-DDD	UG/KG	0/1	1	0/1			19.000	56.000	
4,4'-DDE	UG/KG	0/1	1	0/1			19.000	56.000	
4,4'-DDT	UG/KG	0/1	1	0/1			19.000	56.000	
ALDRIN	UG/KG	0/1	1	0/1			9.400	28.000	
ALPHA-BHC	UG/KG	0/1	1	0/1			9.400	28.000	
ALPHA-CHLORDANE	UG/KG	0/1	1	0/1			94.000	280.000	
AROCLOR-1016	UG/KG	0/1	1	0/1			94.000	280.000	
AROCLOR-1221	UG/KG	0/1	1	0/1			94.000	280.000	
AROCLOR-1232	UG/KG	0/1	1	0/1			94.000	280.000	
AROCLOR-1242	UG/KG	0/1	1	0/1			94.000	280.000	
AROCLOR-1248	UG/KG	0/1	1	0/1			94.000	280.000	
AROCLOR-1254	UG/KG	0/1	1	0/1			190.000	560.000	
AROCLOR-1260	UG/KG	0/1	1	0/1			190.000	560.000	
BETA-BHC	UG/KG	0/1	1	0/1			9.400	28.000	
DELTA-BHC	UG/KG	0/1	1	0/1			9.400	28.000	
DIELDRIN	UG/KG	0/1	1	0/1			19.000	56.000	
ENDOSULFAN II	UG/KG	0/1	1	0/1			19.000	56.000	
ENDOSULFAN SULFATE	UG/KG	0/1	1	0/1			19.000	56.000	
ENDOSULFAN-I	UG/KG	0/1	1	0/1			9.400	28.000	
ENDRIN	UG/KG	0/1	1	0/1			19.000	56.000	
ENDRIN KETONE	UG/KG	0/1	1	0/1			19.000	56.000	
GAMMA-BHC (LINDANE)	UG/KG	0/1	1	0/1			9.400	28.000	

001521

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
GAMMA-CHLORDANE	UG/KG	0/1	1	0/1			94.000	280.000	
HEPTACHLOR	UG/KG	0/1	1	0/1			9.400	28.000	
HEPTACHLOR EPOXIDE	UG/KG	0/1	1	0/1			9.400	28.000	
METHOXYCHLOR	UG/KG	0/1	1	0/1			94.000	280.000	
TOXAPHENE	UG/KG	0/1	1	0/1			190.000	560.000	

001522

05/24/94

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
ORGANOPHOSPHORUS PESTICIDES									
DEPTH: 0 - .5 FEET									
AZINPHOSMETHYL	UG/KG	0/2	2	0/2			98.000	103.000	
DEMETON	UG/KG	0/2	2	0/2			78.000	82.000	
DIAZINON	UG/KG	0/2	2	0/2			39.000	41.000	
DISULFOTON	UG/KG	0/2	2	0/2			39.000	41.000	
ETHION	UG/KG	0/2	2	0/2			39.000	41.000	
MALATHION	UG/KG	0/2	2	0/2			39.000	41.000	
METHYL PARATHION	UG/KG	0/2	2	0/2			39.000	41.000	
PARATHION	UG/KG	0/2	2	0/2			39.000	41.000	

001523

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
ORGANOPHOSPHORUS PESTICIDES DEPTH: 1 - 1.5 FEET									
AZINPHOSMETHYL	UG/KG	0/4	4	0/4			83.000	107.000	
DEMETON	UG/KG	0/4	4	0/4			66.000	85.000	
DIAZINON	UG/KG	0/4	4	0/4			33.000	43.000	
DISULFOTON	UG/KG	0/4	4	0/4			33.000	43.000	
ETHION	UG/KG	0/4	4	0/4			33.000	43.000	
MALATHION	UG/KG	0/4	4	0/4			33.000	43.000	
METHYL PARATHION	UG/KG	0/4	4	0/4			33.000	43.000	
PARATHION	UG/KG	0/4	4	0/4			33.000	43.000	

001524

05/24/94

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS									
DEPTH: 0 - .5 FEET									
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NG/G	0/11	11	0/11			120.000	1000.000	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			98.000	1000.000	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			140.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/11	11	0/11			100.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			66.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/11	11	0/11			94.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			61.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/11	11	0/11			93.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			76.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NG/G	0/11	11	0/11			120.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			60.000	1000.000	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			70.000	1000.000	
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			60.000	1000.000	
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/11	11	0/11			24.000	1000.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			23.000	1000.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/11	11	0/11			120.000	1000.000	
HEPTACHLORODIBENZOFURANS	NG/G	0/11	11	0/11			290.000	1200.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/11	11	0/11			97.000	1000.000	
HEXACHLORODIBENZOFURANS	NG/G	0/11	11	0/11			67.000	1000.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	4/11	11	4/11	240.000-900.000	430.00	200.000	1300.000	
OCTACHLORODIBENZOFURAN	NG/G	0/11	11	0/11			90.000	1000.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/11	11	0/11			130.000	1000.000	

05/24/94

001525

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 0 - .5 FEET									
PENTACHLORODIBENZOFURANS	NG/G	0/11	11	0/11			60.000	1000.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/11	11	0/11			75.000	1000.000	
TETRACHLORODIBENZOFURANS	NG/G	0/11	11	0/11			46.000	1000.000	

001526

05/24/94

5699

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS									
DEPTH: 1 - 1.5 FEET									
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			130.000	1000.000	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			200.000	1000.000	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			240.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			190.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			100.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			160.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			92.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			170.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			120.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			160.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			73.000	1000.000	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			110.000	1000.000	
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			74.000	1000.000	
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			54.000	1000.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			66.000	1000.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/4	4	0/4			130.000	1000.000	
HEPTACHLORODIBENZOFURANS	NG/G	0/4	4	0/4			930.000	1200.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/4	4	0/4			170.000	1000.000	
HEXACHLORODIBENZOFURANS	NG/G	0/4	4	0/4			100.000	1000.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			310.000	1000.000	
OCTACHLORODIBENZOFURAN	NG/G	0/4	4	0/4			220.000	1000.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/4	4	0/4			160.000	1000.000	

05/24/94

001527

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 1 - 1.5 FEET									
PENTACHLORODIBENZOFURANS	NG/G	0/4	4	0/4			73.000	1000.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/4	4	0/4			210.000	1000.000	
TETRACHLORODIBENZOFURANS	NG/G	0/4	4	0/4			150.000	1000.000	

001528

05/24/94

5699

AREA: Western Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 0 - .5 FEET									
% SOLIDS	%	2/2	0	2/2	78800.000-85600.000	82200.00	34.000	56.700	
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	38682.000-38682.000	38682.00	34.000	56.700	

001529

05/24/94

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 5 - 10 FEET									
TOTAL ORGANIC CARBON	MG/KG	5/5	5	5/5	13281.000-33226.000	21980.40	6.000	6.000	

001530

05/24/94

AREA: Western Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 10 - 15 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	10049.000-10049.000	10049.00	0.600	0.600	

D.2.29 NORTHWESTERN AREA OF FEMP

This area is located northwest of the production area, but still within the FEMP property boundary. It consists mainly of a wooded area, interspersed with dirt roads. This area is located north of the waste pit area (Operable Unit 1) and a railroad track and south of an off-property, privately owned farm. No known disposal or plant related-activities were associated with this region of the FEMP. Approximately 65 soil samples, mostly surface soil, were collected from this area as part of the site-wide RI/FS program.

Surface Soil

Surface soil sampling locations in the northwestern area of the FEMP property are shown in Figure D.2-33. The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was elevated above background in the area. Table D.2-29 presents the distribution of constituents above the background values for each sample depth interval. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Within the 0- to 0.5-foot depth interval, several radionuclides were detected which exhibited elevated concentrations. Of these, uranium-238, total uranium, uranium-234, uranium-235/236, strontium-90 and cesium-137 concentrations were the most significantly elevated by greater than two times to greater than five times background levels. Total uranium concentrations were as high as 52 mg/kg in the surface soil, within the 0- to 0.5-foot depth, located just north of the waste pit area. This was the only area that exceeded five times the background concentration for total uranium.

The majority of inorganic compounds detected in the surface soil were at least slightly elevated above background levels. The inorganics that exhibited the most significantly elevated concentrations (by at least two times background) were beryllium, cadmium, calcium, cyanide, magnesium, molybdenum, silver, sodium, and zinc. The majority of the highest concentrations of these inorganic constituents were present within the 0- to 0.5-foot depth interval in an area located northeast of teh waste pit area.

Three volatile organic compounds were detected in low concentrations within the surface soil. These were 4-methyl-2-pentanone (detected in 1 of 18 samples at 14 μg/kg), toluene (5 of 18 samples at 1 to 4 μg/kg), and trichloroethene (1 of 18 samples at 4 μg/kg). All of which were analyzed and detected in the 0.0- to 0.5-foot depth interval only in an area located northwest of the fire training area.

Nine semivolatile organic compounds, mainly, PAHs, were detected in the surface soil, in concentrations ranging from 45 to 160 μg/kg, mainly in an area located north of waste pit area.

The pesticide 4,4'-DDT was detected in the 0.0- to 0.5 foot depth interval in 1 of 14 samples at 15 μg/kg. No PCBs were detected in the surface soil.

Subsurface Soil

The maximum sample concentration was compared to the 95th percentile background value (background) for each constituent to determine whether the constituent was considered a contamination problem in the area. Table D.2-29 presents the distribution of constituents above the background levels for each sample depth interval.

The only radiological parameter to be analyzed continuously in the subsurface soil in the northwestern area of the FEMP was total uranium. It was detected at slightly elevated concentrations above background from 1.5 to 20 feet, mainly located in the area north of the waste pit area. The only radionuclide to exhibit activities elevated above five times background levels was strontium-90, within the 10.0- to 15.0-foot depth. in an isolated location north of the fire training area.

Inorganic constituents were not analyzed in the subsurface soil samples collected from the northwestern area of the FEMP.

The only volatile organic compounds detected in the subsurface soil were 1,1,1-trichloroethane (1 detection in 2 samples at 1 μg/kg) and methylene chloride (1 detection in 2 samples at 25 μg/kg), both at the 5.0- to 10.0-foot depth only. Both samples were located southwest of the fire training area.

Semivolatile organic compounds, pesticides, and PCBs were not analyzed in the subsurface soil samples collected from the northwestern area of the FEMP.

Conclusions

The radionuclide contamination present in the soils of the northwestern area of the FEMP is mainly localized in the surface soil and most likely attributable to airborne deposition from past emissions in the former production area. Total uranium concentrations were highest in the 0- to 0.5-foot depth

interval and decreased with depth. However, only the 0- to 0.5-foot depth interval exceeded the background concentration by five times. Only one isolated location of total uranium, located north of the waste pit area, exhibited this high concentration.

TABLE D.2-29
NORTHWESTERN AREA OF FEMP
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4	1.25	1.43	NA	NA	NA	0.424	ND	NA	0.711
0 - 0.5	40		■	■	●	○	■	●	●	●	●	X	-	-	■	X	-	▒
0.5 - 1	2		●															
1 - 1.5	2		●															
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.39	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	2		●															
3 - 5	2		●															
5 - 10	2	○	●	○			-											
10 - 15	3	○	●	○	○	○	-	○	○	○	●	-	-	-	■	X	-	-
15 - 20	1	●	●			○	-			●							-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																												
95 % Background Value		11,900	ND	8.2	95.7	0.60	13.7	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	20	●	X	○	●	▒	●	▒	■	●	●	●	■	●	●	■	●	-	X	●	●	●	○	X	▒	●	○	▒
0.5 - 1	0																											
1 - 1.5	0																											
Subsurface Soil:																												
95 % Background Value		16,100	ND	9.57	119	0.62		0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	0																											
3 - 5	0																											
5 - 10	0																											
10 - 15	0																											
15 - 20	0																											

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-29
(Continued)

	VOLATILES (ug/kg)							SEMIVOLATILES (ug/kg)											PESTICIDES /PCBs(ug/kg)										
Depth Interval, Feet	Number of Samples	1,1,1-Trichloroethene	4-Methyl-2-pentanone	Methylene chloride	Toluene	Trichloroethene		Number of Samples	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-butyl phthalate	Fluoranthene	Phenanthrene	Pyrene		Number of Samples	4,4'-DDT									
Surface Soil:																													
0 - 0.5	18	-	X	-	X	X		18	X	X	X	X	X	X	X	X	X		13	X									
0.5 - 1	0							0											0										
1 - 1.5	0							0											0										
Subsurface Soil:																													
1.5 - 3	0							0											0										
3 - 5	0							0											0										
5 - 10	2	X	-	X	-	-		0											0										
10 - 15	0							0											0										
15 - 20	0							0											0										

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

ACAD: W:\DATA\CADD\4P94\94051011.DWG 6/12/94 JAK STATE PLANAR COORDINATE SYSTEM 1927

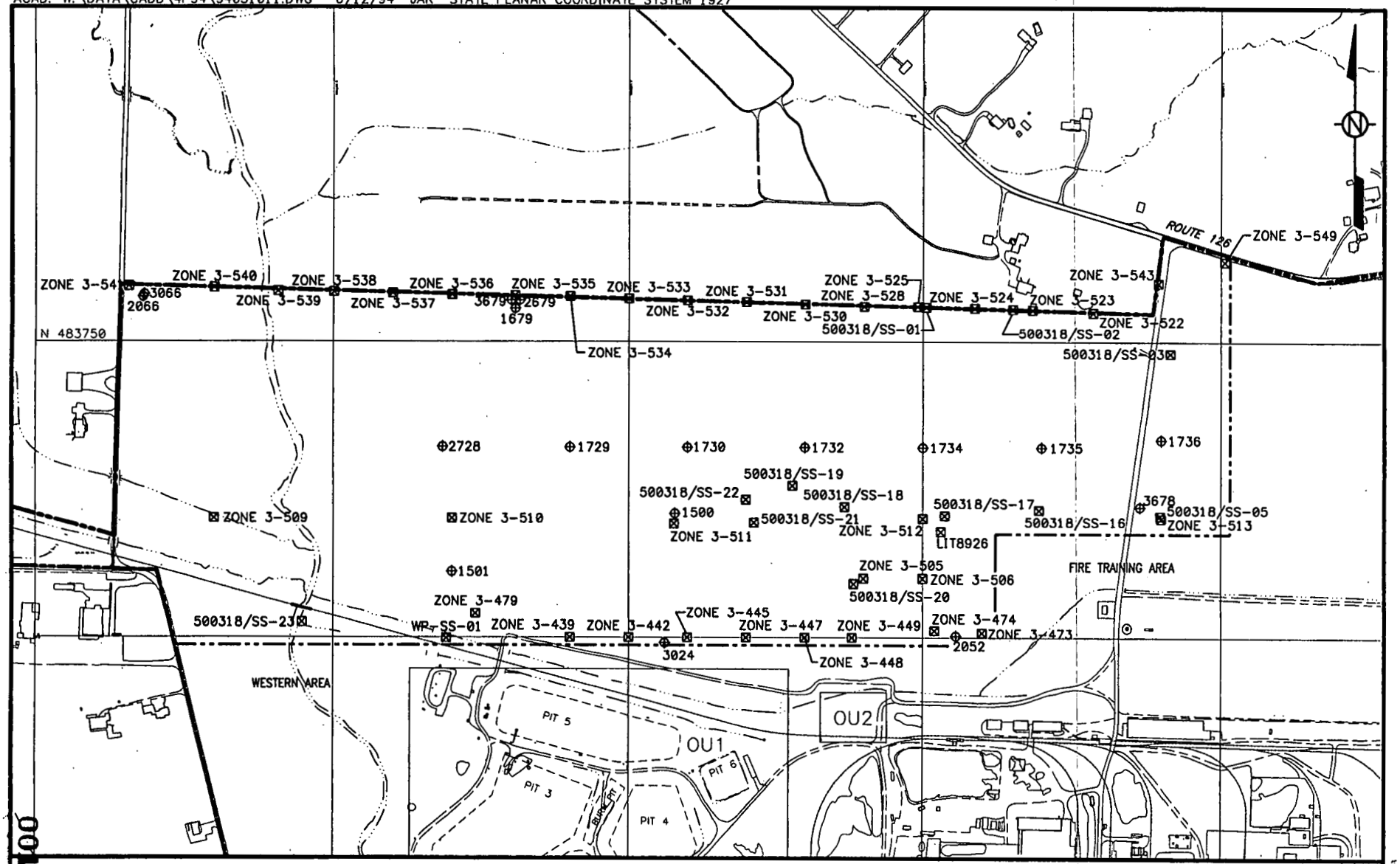

FIGURE D.2-33. NORTHWESTERN AREA OF THE FEMP

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Northwestern Area of FEMP

Summary Soil Statistics

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AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	43/43	42	41/43	0.700-19.907	4.48			1.24
URANIUM, TOTAL	MG/KG	43/43	42	42/43	3.000-52.823	13.17			3.73
URANIUM-234	PCI/G	43/43	42	41/43	0.720-14.880	3.55			1.24
THORIUM-230	PCI/G	42/42	42	6/42	0.890-3.140	1.63			1.97
RADIUM-226	PCI/G	36/38	38	0/38	0.600-1.200	0.95	0.300	0.400	1.42
URANIUM-235/236	PCI/G	4/43	42	4/43	0.630-1.600	0.96	0.100	1.000	0.156
THORIUM-232	PCI/G	40/42	42	1/42	0.600-1.400	0.96	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	40/42	11	1/42	5.472-12.768	8.77	5.472	5.472	12.4
RADIUM-228	PCI/G	31/38	38	2/38	0.600-1.350	1.04	0.500	0.900	1.25
THORIUM-228	PCI/G	41/42	42	10/42	0.570-2.910	1.32	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	1/32	32	1/32	0.810-0.810	0.81	0.200	1.000	NA
PLUTONIUM-239/240	PCI/G	0/40	40	0/40			0.200	1.000	NA
PLUTONIUM-238	PCI/G	0/40	40	0/40			0.200	1.000	NA
STRONTIUM-90	PCI/G	16/37	37	16/37	0.600-2.500	0.99	0.500	0.500	0.424
TECHNETIUM-99	PCI/G	1/39	36	1/39	1.600-1.600	1.60	1.000	2.300	NA
RUTHENIUM-106	PCI/G	0/38	38	0/38			1.000	1.200	NA
CESIUM-137	PCI/G	31/38	38	11/38	0.300-1.600	0.64	0.200	0.200	0.711
GROSS ALPHA	PCI/G	11/11	8	11/11	15.000-28.500	23.16			
GROSS BETA	PCI/G	11/11	8	11/11	21.600-58.800	32.89			

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AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM, TOTAL	MG/KG	2/2	2	2/2	5.000-7.000	6.00			3.73

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AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM, TOTAL	MG/KG	2/2	2	2/2	5.000-6.000	5.50			3.73

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AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM, TOTAL	MG/KG	2/2	2	2/2	6.000-7.000	6.50			3.69

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AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES									
DEPTH: 3 - 5 FEET									
URANIUM, TOTAL	MG/KG	2/2	2	2/2	4.000-6.000	5.00			3.69

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AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	1/1	1	0/1	0.900-0.900	0.90			1.12
URANIUM, TOTAL	MG/KG	3/3	3	1/3	2.960-4.000	3.32			3.69
URANIUM-234	PCI/G	1/1	1	0/1	0.900-0.900	0.90			1.04
URANIUM-235/236	PCI/G	0/1	1	0/1			0.600	0.600	0.150

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AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	3/3	3	0/3	0.700-0.760	0.74			1.12
URANIUM, TOTAL	MG/KG	3/4	4	1/4	2.240-5.000	3.20	4.600	4.600	3.69
URANIUM-234	PCI/G	3/3	3	0/3	0.700-0.890	0.76			1.04
THORIUM-230	PCI/G	3/3	3	0/3	1.200-1.690	1.47			1.91
RADIUM-226	PCI/G	2/3	3	0/3	0.800-0.810	0.81	0.300	0.300	1.47
URANIUM-235/236	PCI/G	0/3	3	0/3			0.600	0.600	0.150
THORIUM-232	PCI/G	1/3	3	0/3	0.730-0.730	0.73	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	2/3	3	0/3	4.000-6.560	5.28	5.472	5.472	11.1
RADIUM-228	PCI/G	2/3	3	0/3	0.600-0.760	0.68	0.500	0.500	1.31
THORIUM-228	PCI/G	2/3	3	2/3	2.000-2.020	2.01	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/1	1	0/1			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/3	3	0/3			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/3	3	1/3	2.670-2.670	2.67	0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/3	3	1/3	1.040-1.040	1.04	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/3	3	0/3			1.000	1.000	NA
CESIUM-137	PCI/G	0/3	3	0/3			0.200	0.200	NA
GROSS ALPHA	PCI/G	2/2	2	2/2	9.230-10.700	9.97			
GROSS BETA	PCI/G	2/2	2	2/2	11.900-21.700	16.80			

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AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	4/4	4	2/4	0.860-1.540	1.19			1.12
URANIUM, TOTAL	MG/KG	7/7	7	4/7	2.655-6.000	4.08			3.69
RADIUM-226	PCI/G	4/4	4	0/4	0.700-0.890	0.80			1.47
URANIUM-235/236	PCI/G	0/4	4	0/4			0.200	0.200	0.150
RADIUM-228	PCI/G	4/4	4	1/4	0.660-1.550	0.93			1.31
RUTHENIUM-106	PCI/G	0/4	4	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	4	0/4			0.200	0.200	NA

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AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	7/8	8	3/8	0.700-4.300	1.43	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	7/8	8	1/8	2.364-3.854	2.88	2.066	2.066	3.69
URANIUM-234	PCI/G	4/7	7	3/7	0.900-3.250	1.72	0.600	0.600	1.04
THORIUM-230	PCI/G	4/4	4	1/4	1.000-2.700	1.63			1.91
RADIUM-226	PCI/G	4/5	5	1/5	0.690-1.600	0.96	0.500	0.500	1.47
URANIUM-235/236	PCI/G	0/8	8	0/8			0.240	0.600	0.150
THORIUM-232	PCI/G	5/6	6	0/6	0.600-1.100	0.85	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	5/6	3	0/6	5.472-9.950	7.72	5.472	5.472	11.1
RADIUM-228	PCI/G	4/5	5	1/5	0.780-1.450	1.08	1.000	1.000	1.31
THORIUM-228	PCI/G	5/6	6	2/6	0.800-3.490	1.59	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/3	3	0/3			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/5	5	0/5			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/5	5	0/5			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/5	5	1/5	6.600-6.600	6.60	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/3	3	0/3			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/5	5	0/5			1.000	1.200	NA
CESIUM-137	PCI/G	0/5	5	0/5			0.200	0.200	NA
GROSS ALPHA	PCI/G	2/2	2	2/2	10.800-20.700	15.75			
GROSS BETA	PCI/G	2/2	2	2/2	19.700-37.000	28.35			

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AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	21/21	21	2/21	4730.000-13400.000	8964.76			11900
ANTIMONY	MG/KG	1/20	20	1/20	3.200-3.200	3.20	0.880	8.200	NA
ARSENIC	MG/KG	20/21	21	0/21	2.400-6.000	3.96	3.900	3.900	8.20
BARIUM	MG/KG	21/21	21	6/21	37.400-185.000	87.08			95.7
BERYLLIUM	MG/KG	8/21	21	7/21	0.410-1.700	0.91	0.500	1.400	0.6
BORON	MG/KG	1/1	1	1/1	14.300-14.300	14.30			13.7
CADMIUM	MG/KG	5/21	21	4/21	0.510-1.900	1.42	0.490	1.400	0.870
CALCIUM	MG/KG	18/21	21	11/21	1130.000-104000.000	17498.33	1780.000	3270.000	4340
CHROMIUM	MG/KG	21/21	21	5/21	5.900-19.400	12.92			15.5
COBALT	MG/KG	21/21	21	3/21	5.100-17.900	10.79			14.2
COPPER	MG/KG	21/21	21	10/21	6.800-23.600	14.19			14.1
CYANIDE	MG/KG	9/21	21	4/21	0.150-1.700	0.45	0.120	0.380	0.270
IRON	MG/KG	21/21	21	3/21	9940.000-24000.000	16878.10			21700
LEAD	MG/KG	18/18	18	2/18	8.800-33.300	20.28			26.4
MAGNESIUM	MG/KG	21/21	21	9/21	1230.000-28100.000	5048.57			2780
MANGANESE	MG/KG	20/20	20	1/20	294.000-1470.000	780.55			1350
MERCURY	MG/KG	0/21	21	0/21			0.060	0.140	0.3
MOLYBDENUM	MG/KG	7/21	21	7/21	6.900-13.300	9.66	2.600	4.800	NA
NICKEL	MG/KG	21/21	21	4/21	5.500-25.800	14.86			20.9
POTASSIUM	MG/KG	21/21	21	8/21	486.000-2080.000	1079.86			1230
SELENIUM	MG/KG	4/19	19	1/19	0.320-0.770	0.57	0.250	1.200	0.72
SILICON	MG/KG	21/21	21	0/21	216.000-1660.000	902.62			1800

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AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SILVER	MG/KG	1/21	21	1/21	3.900-3.900	3.90	0.480	2.700	NA
SODIUM	MG/KG	18/21	21	7/21	27.900-143.000	59.44	36.000	132.000	51.1
THALLIUM	MG/KG	1/21	21	1/21	0.670-0.670	0.67	0.240	0.560	0.58
VANADIUM	MG/KG	21/21	21	0/21	12.200-28.800	20.71			30.4
ZINC	MG/KG	20/21	21	9/21	28.500-137.000	57.20	28.600	28.600	59.6

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AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

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Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
1,1-DICHLOROETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
1,1-DICHLOROETHENE	UG/KG	0/18	18	0/18			6.000	14.000	
1,2-DICHLOROETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/18	18	0/18			6.000	14.000	
1,2-DICHLOROPROPANE	UG/KG	0/18	18	0/18			6.000	14.000	
2-BUTANONE	UG/KG	0/18	18	0/18			6.000	14.000	
2-HEXANONE	UG/KG	0/18	18	0/18			12.000	14.000	
4-METHYL-2-PENTANONE	UG/KG	1/18	18	1/18	14.000-14.000	14.00	7.000	14.000	
ACETONE	UG/KG	0/18	18	0/18			12.000	14.000	
BENZENE	UG/KG	0/18	18	0/18			10.000	14.000	
BROMODICHLOROMETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
BROMOFORM	UG/KG	0/18	18	0/18			6.000	14.000	
BROMOMETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
CARBON DISULFIDE	UG/KG	0/17	17	0/17			12.000	14.000	
CARBON TETRACHLORIDE	UG/KG	0/18	18	0/18			6.000	14.000	
CHLOROBENZENE	UG/KG	0/18	18	0/18			6.000	14.000	
CHLOROETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
CHLOROFORM	UG/KG	0/18	18	0/18			12.000	14.000	
CHLOROMETHANE	UG/KG	0/18	18	0/18			6.000	14.000	

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AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/18	18	0/18			6.000	14.000	
DIBROMOCHLOROMETHANE	UG/KG	0/18	18	0/18			6.000	14.000	
ETHYLBENZENE	UG/KG	0/18	18	0/18			6.000	14.000	
METHYLENE CHLORIDE	UG/KG	0/18	18	0/18			7.000	39.000	
STYRENE	UG/KG	0/18	18	0/18			6.000	14.000	
TETRACHLOROETHENE	UG/KG	0/18	18	0/18			6.000	14.000	
TOLUENE	UG/KG	5/18	18	5/18	1.000-4.000	2.40	6.000	14.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/18	18	0/18			6.000	14.000	
TRICHLOROETHENE	UG/KG	1/18	18	1/18	4.000-4.000	4.00	6.000	14.000	
VINYL ACETATE	UG/KG	0/10	10	0/10			12.000	14.000	
VINYL CHLORIDE	UG/KG	0/18	18	0/18			12.000	14.000	
XYLENES, TOTAL	UG/KG	0/18	18	0/18			6.000	14.000	

001551

05/21/94

AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/2	2	1/2	1.000-1.000	1.00	6.000	6.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,1-DICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/2	2	0/2			6.000	6.000	
1,2-DICHLOROPROPANE	UG/KG	0/2	2	0/2			6.000	6.000	
2-BUTANONE	UG/KG	0/2	2	0/2			12.000	12.000	
2-HEXANONE	UG/KG	0/2	2	0/2			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/2	2	0/2			12.000	12.000	
ACETONE	UG/KG	0/2	2	0/2			12.000	13.000	
BENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMODICHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOFORM	UG/KG	0/2	2	0/2			6.000	6.000	
BROMOMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROETHANE	UG/KG	0/2	2	0/2			12.000	12.000	
CHLOROFORM	UG/KG	0/2	2	0/2			6.000	6.000	
CHLOROMETHANE	UG/KG	0/2	2	0/2			12.000	12.000	

05/21/94

001552

AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
DIBROMOCHLOROMETHANE	UG/KG	0/2	2	0/2			6.000	6.000	
ETHYLBENZENE	UG/KG	0/2	2	0/2			6.000	6.000	
METHYLENE CHLORIDE	UG/KG	1/2	2	1/2	25.000-25.000	25.00	6.000	6.000	
STYRENE	UG/KG	0/2	2	0/2			6.000	6.000	
TETRACHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
TOLUENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/2	2	0/2			6.000	6.000	
TRICHLOROETHENE	UG/KG	0/2	2	0/2			6.000	6.000	
VINYL ACETATE	UG/KG	0/2	2	0/2			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/2	2	0/2			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/2	2	0/2			6.000	6.000	

001553

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F 5 6 9 9

AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/18	18	0/18			390.000	470.000	
1,2-DICHLOROBENZENE	UG/KG	0/18	18	0/18			390.000	470.000	
1,3-DICHLOROBENZENE	UG/KG	0/18	18	0/18			390.000	470.000	
1,4-DICHLOROBENZENE	UG/KG	0/18	18	0/18			390.000	470.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/18	18	0/18			970.000	2200.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/18	18	0/18			390.000	470.000	
2,4-DICHLOROPHENOL	UG/KG	0/18	18	0/18			390.000	470.000	
2,4-DIMETHYLPHENOL	UG/KG	0/18	18	0/18			390.000	470.000	
2,4-DINITROPHENOL	UG/KG	0/17	17	0/17			970.000	2200.000	
2,4-DINITROTOLUENE	UG/KG	0/18	18	0/18			390.000	470.000	
2,6-DINITROTOLUENE	UG/KG	0/18	18	0/18			390.000	470.000	
2-CHLORONAPHTHALENE	UG/KG	0/18	18	0/18			390.000	470.000	
2-CHLOROPHENOL	UG/KG	0/18	18	0/18			390.000	470.000	
2-METHYLNAPHTHALENE	UG/KG	0/18	18	0/18			390.000	470.000	
2-METHYLPHENOL	UG/KG	0/18	18	0/18			390.000	470.000	
2-NITROANILINE	UG/KG	0/18	18	0/18			970.000	2200.000	
2-NITROPHENOL	UG/KG	0/18	18	0/18			390.000	470.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/18	18	0/18			400.000	900.000	
3-NITROANILINE	NONE	0/17	17	0/17			970.000	2200.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/18	18	0/18			970.000	2200.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/18	18	0/18			390.000	470.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/18	18	0/18			390.000	470.000	

05/21/94

001554

AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/18	18	0/18			390.000	470.000	
4-METHYLPHENOL	UG/KG	0/18	18	0/18			390.000	470.000	
4-NITROANILINE	UG/KG	0/17	17	0/17			970.000	2200.000	
4-NITROPHENOL	UG/KG	0/18	18	0/18			970.000	2200.000	
ACENAPHTHENE	UG/KG	0/18	18	0/18			390.000	470.000	
ACENAPHTHYLENE	UG/KG	0/18	18	0/18			390.000	470.000	
ANTHRACENE	UG/KG	0/18	18	0/18			390.000	470.000	
BENZO(A)ANTHRACENE	UG/KG	1/18	18	1/18	48.000-48.000	48.00	390.000	470.000	
BENZO(A)PYRENE	UG/KG	0/18	18	0/18			390.000	470.000	
BENZO(B)FLUORANTHENE	UG/KG	1/18	18	1/18	56.000-56.000	56.00	390.000	470.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/18	18	0/18			390.000	470.000	
BENZO(K)FLUORANTHENE	UG/KG	1/18	18	1/18	60.000-60.000	60.00	390.000	470.000	
BENZOIC ACID	UG/KG	0/18	18	0/18			1000.000	2200.000	
BENZYL ALCOHOL	UG/KG	0/18	18	0/18			390.000	470.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/18	18	0/18			390.000	470.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/18	18	0/18			390.000	470.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/17	17	0/17			390.000	470.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	4/18	18	4/18	57.000-590.000	194.00	390.000	470.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/18	18	0/18			390.000	470.000	
CARBAZOLE	UG/KG	0/1	1	0/1			400.000	430.000	
CHRYSENE	UG/KG	1/18	18	1/18	77.000-77.000	77.00	390.000	470.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/18	18	1/18	82.000-82.000	82.00	390.000	470.000	

05/21/94

AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/18	18	0/18			390.000	470.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/18	18	0/18			390.000	470.000	
DIBENZOFURAN	UG/KG	0/18	18	0/18			390.000	470.000	
DIETHYL PHTHALATE	UG/KG	0/18	18	0/18			390.000	470.000	
DIMETHYL PHTHALATE	UG/KG	0/18	18	0/18			390.000	470.000	
FLUORANTHENE	UG/KG	2/18	18	2/18	82.000-160.000	121.00	390.000	470.000	
FLUORENE	UG/KG	0/18	18	0/18			390.000	470.000	
HEXACHLOROBENZENE	UG/KG	0/18	18	0/18			390.000	470.000	
HEXACHLOROBUTADIENE	UG/KG	0/18	18	0/18			390.000	470.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/18	18	0/18			30.000	470.000	
HEXACHLOROETHANE	UG/KG	0/18	18	0/18			390.000	470.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/18	18	0/18			390.000	470.000	
ISOPHORONE	UG/KG	0/18	18	0/18			390.000	470.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/18	18	0/18			390.000	470.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/18	18	0/18			390.000	470.000	
NAPHTHALENE	UG/KG	0/18	18	0/18			390.000	470.000	
NITROBENZENE	UG/KG	0/18	18	0/18			390.000	470.000	
P-CHLOROANILINE	UG/KG	0/17	17	0/17			390.000	470.000	
PENTACHLOROPHENOL	UG/KG	0/18	18	0/18			970.000	2200.000	
PHENANTHRENE	UG/KG	2/18	18	2/18	45.000-95.000	70.00	390.000	470.000	
PHENOL	UG/KG	0/18	18	0/18			390.000	470.000	
PYRENE	UG/KG	3/18	18	3/18	63.000-130.000	97.67	400.000	470.000	

05/21/94

001556

AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/13	13	0/13			4.100	22.000	
4,4'-DDE	UG/KG	0/13	13	0/13			4.100	22.000	
4,4'-DDT	UG/KG	1/14	14	1/14	15.000-15.000	15.00	4.100	22.000	
ALDRIN	UG/KG	0/13	13	0/13			2.100	11.000	
ALPHA-BHC	UG/KG	0/13	13	0/13			2.100	11.000	
ALPHA-CHLORDANE	UG/KG	0/13	13	0/13			2.100	110.000	
AROCLOR-1016	UG/KG	0/13	13	0/13			41.000	110.000	
AROCLOR-1221	UG/KG	0/13	13	0/13			83.000	160.000	
AROCLOR-1232	UG/KG	0/13	13	0/13			41.000	110.000	
AROCLOR-1242	UG/KG	0/13	13	0/13			41.000	110.000	
AROCLOR-1248	UG/KG	0/13	13	0/13			41.000	110.000	
AROCLOR-1254	UG/KG	0/13	13	0/13			41.000	220.000	
AROCLOR-1260	UG/KG	0/13	13	0/13			41.000	220.000	
BETA-BHC	UG/KG	0/13	13	0/13			2.100	11.000	
DELTA-BHC	UG/KG	0/13	13	0/13			2.100	11.000	
DIELDRIN	UG/KG	0/13	13	0/13			4.100	22.000	
ENDOSULFAN II	UG/KG	0/13	13	0/13			4.100	22.000	
ENDOSULFAN SULFATE	UG/KG	0/13	13	0/13			4.100	22.000	
ENDOSULFAN-I	UG/KG	0/13	13	0/13			2.100	11.000	
ENDRIN	UG/KG	0/13	13	0/13			4.100	22.000	
ENDRIN ALDEHYDE	UG/KG	0/5	5	0/5			4.100	8.000	
ENDRIN KETONE	UG/KG	0/13	13	0/13			4.100	22.000	

05/21/94

AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/13	13	0/13			2.100	11.000	
GAMMA-CHLORDANE	UG/KG	0/13	13	0/13			2.100	110.000	
HEPTACHLOR	UG/KG	0/13	13	0/13			2.100	11.000	
HEPTACHLOR EPOXIDE	UG/KG	0/13	13	0/13			2.100	11.000	
METHOXYCHLOR	UG/KG	0/13	13	0/13			21.000	110.000	
TOXAPHENE	UG/KG	0/13	13	0/13			200.000	410.000	

001558

05/21/94

AREA: Northwest Area of FEMP
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 0 - .5 FEET									
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			390.000	390.000	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			360.000	360.000	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			450.000	450.000	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			410.000	410.000	
HEXACHLORODIBENZOFURANS	NG/G	0/1	1	0/1			400.000	400.000	

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AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 3 - 5 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	3791.000-3791.000	3791.00			

AREA: Northwest Area of FEMP
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 15 - 20 FEET									
TOTAL ORGANIC CARBON	MG/KG	2/2	2	2/2	832.000-4399.000	2615.50			

001561

05/21/94

D.2.30 AREA OUTSIDE FEMP ADJACENT TO BOUNDARY

Soil outside the FEMP property boundary has been investigated since early 1986, when two law suits were filed against the operators of the former Feed Materials Production Center (FMPC) of releasing potentially hazardous amounts of uranium to off-site areas. Soil samples were collected and analyzed for isotopic uranium activities during the 1986 soil assessment to support the litigation. Additional studies of off-site soil contamination were conducted in subsequent years for radionuclides and chemical compounds.

The area outside the FEMP adjacent boundary, as shown in Figure D.2-34, is selected on the basis of the 1986 soil assessment results. This area encompasses an oval area of approximately 3 square miles, excluding the area of the FEMP site itself, extending 1.3 miles both northeast and southwest of the FEMP. Soil samples in the area outside the FEMP adjacent boundary were collected and analyzed under four major soil sampling programs, including the 1986 soil assessment and others, and two sampling programs that contain a few sampling locations in this area. All soil sampling locations for the sampling programs are identified in Figure D.2-34. Descriptions of the sampling programs are provided in the following sections.

A number of soil samples were collected in this area for the large-scale uranium assessment project in support of an on-going litigation case for National Lead of Ohio (NLO). These samples were collected in March 1986 as part of 315 surface locations in and around the FEMP. Using a 6.4-cm-diameter corer, core samples were collected in three different depth levels (0 to 2 inches, 2 to 4 inches, and 4 to 6 inches) at each location. These sample locations are identified in Figure D.2-34 as LIT followed by four-digit numbers.

The second sampling program in this area was a surface soil sampling program conducted during May through June 1988 under Task 3.4.2 of the site-wide RI/FS Work Plan (March 1988). Under this program, soil sampling locations were identified by boring numbers "Zone x-xx" and "Offsite-xx", as indicated in Figure D.2-34. Three soil samples were primarily collected at each sampling location at 2-inch intervals to a total depth of 6 inches. The samples were analyzed for full radiological parameters or isotopic uranium only.

The third soil sampling program within this area was conducted during the period of May 1988 through January 1991 under Task 3.2 of the site-wide RI/FS Work Plan. A number of borings,

including Types 2, 3 and 4 borings, were drilled into subsurface geological formations within this area. Samples were collected using an 18-inch split-spoon sampler continuously in the glacial till and, beyond the till, for every 5 feet and at each change in lithology. The samples were field screened for volatile organic compounds using an organic vapor analyzer (OVA) or HNu as well as for radionuclides by a large-volume scintillation detector (SPA-3). The sample with the highest reading within each geologic horizon for each boring location was selected for laboratory analysis. The selected soil samples were analyzed for full radiological constituents and/or full HSL parameters, depending on the field conditions. These soil sampling locations are identified in Figure D.2-34 by the boring numbers of Types 2, 3, and 4 borings.

The fourth soil sampling program was a surface soil investigation in areas bordering the former production area, conducted in July 1993 under the Project Specific Plan for Surface and Subsurface Soil Sampling Investigation. Three surface soil samples were collected in an adjacent area northeast of the sewage treatment plant and analyzed for full HSL inorganics, organics, pesticides/PCBs, and full radiological analyses. Four additional samples were collected from areas to the east and northeast of the FEMP property to verify the data from the 1986 soil assessment. These samples were analyzed for radionuclides and pesticides/PCBs (polychlorinated biphenyls) using current analytical procedures and validation protocol. The soil sampling locations under this sampling program are identified in Figure D.2-34 by the task number (50.03.18) and/or surface soil (SS) numbers. Isoconcentration maps showing the lateral extent of the constituents are presented in the Plates.

Two additional samples, as identified by ASI-57 and SP-11, were collected within this area. These samples were collected under Task 04.20 of the site-wide RI/FS Work Plan in October 1992 and Task 92-178 in August to September 1992, respectively.

Table D.2-30 presents the distribution of radiological and chemical constituents in the surface and subsurface soils of the area outside the FEMP adjacent boundary. The maximum detection of each constituent is compared to the 95th percentile background value (background), if available, to determine whether the constituent was elevated above background. When background was not available, any detection of these constituents was reported.

Surface Soil

A total of 182 soil samples were taken at various surface soil sampling locations in adjacent areas outside the FEMP property boundary. Most of these samples were collected from the top depth interval of 0 to 0.5 feet. The majority of the surface soil samples were analyzed for activities of total uranium and isotopic uranium, whereas some were also analyzed for activities of other radionuclides.

Surface soil samples within the 0- to 0.5-foot depth interval in this area consisted primarily of samples from the top 0- to 2.0-inch depth, with the remainder from the depth intervals of 2.0 to 4.0 inches and 4.0 to 6.0 inches. Within the 0- to 0.5-foot depth interval, a few samples were detected containing levels of isotopic uranium (i.e., U-238, U-234, and U-235/236) and total uranium at levels in excess of five times background. The highest levels of isotopic uranium and total uranium were observed at sampling location SP-11, located immediately northeast of the FEMP property. The second highest level of total uranium (approximately 46 mg/kg) was detected at sampling location LIT7255, located south of Manhole 177 and immediately east of FEMP property boundary. For the rest of the sampling locations where surface soil samples were collected from the 0- to 0.5-foot depth interval, levels of total uranium ranged from 1.2 to 39.7 mg/kg. Note that the majority of total uranium levels were present in the lower end of this range and that the average of all positive detections of total uranium, including the higher ones, was determined to be 7.61 mg/kg.

In addition, thorium and radium isotopes and total thorium were present in samples from the 0- to 0.5-foot depth interval at levels only slightly above background. Strontium-90 and cesium-137 were detected in a few samples at levels slightly above background. Plutonium-239/240 and technetium-99 were each observed in one of a total of 12 samples collected from this depth interval. Other decay products, including neptunium-237, plutonium-238, and ruthenium-106, were analyzed but not detected in samples from this depth interval.

No samples were actually collected from the 0.5- to 1.0-foot depth interval in this area. However, a number of samples were collected at depths of 0 to 1.5 feet and reported as 1.0- to 1.5-foot depth interval samples in the area outside the FEMP boundary.

Within the 1.0- to 1.5-foot depth interval, the highest activities of uranium-238 and uranium-234 were detected at Boring 2393, which is located about three-fourths of a mile south of the FEMP property. For total uranium, the highest concentration at this depth was detected at Boring 3093. However, for

the other sampling locations in the 1.0- to 1.5-foot depth interval, relatively low levels of isotopic uranium and total uranium were detected. Thorium isotopes (Th-230, Th-232, and Th-228) and total thorium were detected at levels slightly above background. Strontium-90 was detected at one sampling location at a level slightly above background. Radium isotopes and cesium-137 were detected at levels less than background. Other decay products were analyzed for but not detected in this sampling interval.

Several inorganic analytes were detected in the samples from the 0- to 0.5-foot depth interval. Of these, barium, beryllium, cadmium, and cobalt were detected at concentrations slightly above two times background. Other inorganic analytes were either detected at insignificant levels or analyzed for but not detected.

Three volatile organic compounds (VOCs), including acetone, tetrachloroethene, and toluene, were detected in samples from depths of 0 to 0.5 feet. These VOCs are basic ingredients in common solvents and petroleum products. No VOCs were analyzed in other depth intervals. VOCs have rarely been detected samples from the top depth interval, as expected from the evaporative nature of these compounds.

Various semivolatile organic compounds, primarily polynuclear aromatic hydrocarbons (PAHs), were detected in the 0- to 0.5-foot depth interval samples collected from sampling location SS-58 (northeast of the FEMP). In addition, three pesticides (4,4'-DDT, alpha-chlordane, and gamma-chlordane) were detected at sampling location SS-60 in this depth interval.

A data requalification exercise was performed between 1986 and 1988 for the 1986 soil assessment data in an effort to establish credibility for litigation purposes. Results of this requalification indicated that the data of the 1986 soil assessment were biased low for samples with total uranium levels at or near the arithmetic natural background level surrounding the FEMP. However, the 1986 soil assessment data were determined not biased for samples with levels higher than the background level. It was concluded that the excess total uranium contained in the top 2 inches of soil surrounding the FEMP facility was less than five times the natural uranium background level, using the highest activity levels in the original 1986 soil assessment data together with the results of the requalification exercise, and was close to two times the natural uranium background level when using the average activity. The current data for the 1986 soil assessment provide the same observations, except for

some minor changes in group designations resulting from the differences of natural background levels for total uranium.

Subsurface Soil

Subsurface soil samples were collected at boring locations during the groundwater monitoring well program under Task 3.2 of the site-wide RI/FS Work Plan. A total of 28 locations for monitoring wells (single and cluster wells) were developed within the area outside the FEMP adjacent boundary. A number of subsurface soil samples, ranging from four to nine samples, were collected from the borings in various depth intervals and analyzed for radiological parameters. One sample from Boring 2094, at a depth of 16.0 feet, was also analyzed for VOCs. The following discussion focuses on the contamination of radiological and chemical constituents in the subsurface soil at depths of 1.5 to 20.0 feet. Note that minor radiological contamination was also observed in subsurface soil beyond the depth of 20.0 feet.

Values of isotopic uranium (U-238 and U-234) and total uranium were detected in all subsurface soil depth intervals throughout 15.0 to 20.0 feet in this area. The highest levels of these constituents were detected in the 3.0- to 5.0-foot depth interval at above background. Within the depth intervals of 10.0 to 15.0 feet and 15.0 to 20.0 feet, these uranium constituents (U-238, U-234, and total uranium) were observed at levels between two times and five times background values. Uranium-235/236 was detected in only one sample collected from the depth interval of 3.0 to 5.0 feet with activity levels between two times and five times background. Thorium-230 was detected at levels slightly above background in depth intervals of 1.5 to 3.0 feet, 3.0 to 5.0 feet, and 15.0 to 20.0 feet. Thorium-232 and total thorium were detected only in the 15.0- to 20.0-foot depth interval at levels between two times and five times background values. Radium isotopes and thorium-228 were present in some of the depth intervals at levels slightly greater background.

Strontium-90 was detected in a few samples collected from depths of 1.5 to 3.0 feet and 5.0 to 10.0 feet with activity levels greater than five times background. Activities of technetium-99 and cesium-137 were observed in the depth intervals of 5.0 to 10.0 feet (at Boring 2560) and 1.5 to 3.0 feet (at Boring 2129), respectively. No other radionuclides were observed in the subsurface soil samples.

In addition, a few VOCs were detected in samples collected from Boring 2094 at a depth of 16.0 feet. These VOCs are ingredients of petroleum products, including ethylbenzene, toluene, and total xylenes.

Conclusion

Most of the radiological contamination detected in the area outside the FEMP adjacent boundary was present in the 0- to 2-inch samples of the 0- to 0.5-foot surface soil depth interval. The main radiological contaminants detected in this area were isotopic uranium and total uranium. A few samples collected from the 0- to 0.5-foot depth interval evidenced isotopic uranium (i.e., U-238, U-234, and U-235/236) and total uranium at levels in excess of five times background. These sampling locations include SP-11 (immediately northeast of FEMP) and LIT7255 (south of Manhole 177 at east of FEMP). At other sampling locations in the 0- to 0.5-foot depth interval, levels of total uranium were detected in the range of 1.2 to 39.7 mg/kg, with most of the results in the lower end of this range.

Within the 1.0- to 1.5-foot depth interval, the highest activities of uranium-238 and uranium-234 were detected at Boring 2393 (about three-fourth of a mile south of the FEMP), and the highest level of total uranium was present at Boring 3093. At the other sampling locations in the 1.0- to 1.5-foot depth intervals, relatively low levels of isotopic uranium and total uranium were detected.

In the subsurface soil samples, levels of isotopic uranium (U-238 and U-234) and total uranium were detected throughout depths of 15.0 to 20.0 feet. The highest levels of these constituents were detected in the 3.0- to 5.0-foot depth interval at values above background. Within the depth intervals of 10.0 to 15.0 feet and 15.0 to 20.0 feet, these uranium constituents (U-238, U-234, and total uranium) were observed at levels between two times and five times background. However, uranium-235/236 was detected in only one sample collected from the depth interval of 3.0 to 5.0 feet with activity levels between two times and five times background.

Note that strontium-90 was detected in a few samples collected from depths of 1.5 to 3.0 feet and 5.0 to 10.0 feet with activities greater than five times background. Other radionuclides, including thorium and radium isotopes and decay products, were detected at levels slightly above two times background in various depth intervals in this area.

In addition, some chemical contaminants, including inorganics analytes, VOCs, semivolatile organics, and pesticides, were detected in samples collected from the depth intervals of 0 to 0.5 feet and 15.0 to 20.0 feet.

The potential pathway for migration of constituents into surface soil outside the FEMP is deposition of airborne contaminants from sources within the FEMP. The predominant wind directions in the area tend to support the evidence for air dispersion in the east of the FEMP. The potential pathways for migration of constituents into subsurface soil also include the contaminated groundwater flowing south and the past releases from the outfall pipeline in the east. Other potential sources of contamination in this area (e.g., industrial factories located south of the FEMP) may have contributed to the chemical and radiological contamination that was observed in the subsurface soil in the southern area outside the FEMP adjacent to the boundary.

TABLE D.2-30
AREA OUTSIDE OF FEMP ADJACENT BOUNDARY
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	40	■	■	■	●	●	■	●	●	●	●	-	X	-	●	X	-	●
0.5 - 1	0																	
1 - 1.5	9	▒	▒	■	●	○	-	●	●	○	●	-	-	-	●	-	-	○
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	8	●	●	●	●	○	○	○	○	○	●	-	-	-	■	-	-	X
3 - 5	4	■	■	■	●	○	▒	○	○	●	●	-	-	-	●	-	-	-
5-10	7	○	●	●	○	○	-	○	○	○	○	-	-	-	■	X	-	-
10 - 15	6	●	●	●	○	▒	-	○	○	○	○	-	-	-	-	-	-	-
15 - 20	5	●	▒	●	●	○	-	▒	▒	●	●	-	-	-	-	-	-	-

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	5	○	-	○	▒	▒	-	▒	○	▒	●	●	●	●	●	●	-	-	○	●	○	○	-	○	○	●	●
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	150,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5-10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

▒ Detection 2X to 5X 95 percentile background value.

■ Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

TABLE D.2-30
(Continued)

	VOLATILES (ug/kg)								SEMIVOLATILES (ug/kg)												PESTICIDES/PCBs (ug/kg)									
Depth Interval, Feet	Number of Samples	Ethylbenzene	Acetone	Tetrachloroethene	Toluene	Total Xylenes			Number of Samples	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Chrysene	Fluoranthene	Ideno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Number of Samples	4,4'-DDT	Alpha-chlordane	Gamma-chlordane						
Surface Soil:																														
0 - 0.5	5	-	X	X	X	-			5	X	X	X	X	X	X	X	X	X	X	X	8	X	X	X						
0.5 - 1	0								0												0									
1 - 1.5	0								0												0									
Subsurface Soil:																														
1.5 - 3	0								0												0									
3 - 5	0								0												0									
5-10	0								0												0									
10 - 15	0								0												0									
15 - 20	1	X	-	-	X	X			0												0									

"Blank" - Compound was not analyzed.

- Analyzed and not detected.

X Detection where background level not recorded.

Area Outside FEMP Adjacent Boundary

Summary Soil Statistics

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	101/108	31	71/108	0.353- 16.503	2.95			1.24
URANIUM, TOTAL	MG/KG	180/182	37	125/182	1.209- 46.712	7.61	11.000	11.000	3.73
URANIUM-234	PCI/G	101/108	31	69/108	0.419- 14.440	2.93			1.24
THORIUM-230	PCI/G	15/17	13	3/17	0.400-3.500	1.47			1.97
RADIUM-226	PCI/G	12/15	14	1/15	0.300-1.900	0.94	0.250	0.250	1.42
URANIUM-235/236	PCI/G	69/105	31	12/105	0.018- 0.681	0.15	0.100	0.600	0.156
THORIUM-232	PCI/G	14/17	13	1/17	0.390-1.400	0.91	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	13/17	1	2/17	3.648-21.000	9.47	5.472	18.000	12.4
RADIUM-228	PCI/G	7/15	14	1/15	0.700-1.300	1.00	0.500	0.500	1.25
THORIUM-228	PCI/G	15/17	13	1/17	0.300-1.700	0.89			1.43
NEPTUNIUM-237	PCI/G	0/7	6	0/7			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	1/12	11	1/12	0.600-0.600	0.60	0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/12	11	0/12			0.200	0.600	NA
STRONTIUM-90	PCI/G	2/12	11	2/12	0.600-0.800	0.70	0.500	1.700	0.424
TECHNETIUM-99	PCI/G	1/12	11	1/12	1.800-1.800	1.80	1.000	2.300	NA
RUTHENIUM-106	PCI/G	0/7	6	0/7			1.000	1.600	NA
CESIUM-137	PCI/G	7/12	10	3/12	0.400-0.900	0.69	0.200	0.200	0.711
GROSS ALPHA	PCI/G	8/9	0	8/9	10.900-39.000	20.56	28.000	28.000	
GROSS BETA	PCI/G	8/9	0	8/9	33.700-42.000	38.26	36.000	36.000	
URANIUM-236	PCI/G	2/2	0	2/2	0.210-0.270	0.24			0.088

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	9/9	9	6/9	1.070-6.090	1.90			1.24
URANIUM, TOTAL	MG/KG	9/9	9	7/9	2.980-12.000	6.51			3.73
URANIUM-234	PCI/G	9/9	9	4/9	1.000-6.480	1.86			1.24
THORIUM-230	PCI/G	9/9	9	3/9	1.150-3.520	1.92			1.97
RADIUM-226	PCI/G	9/9	9	0/9	0.700-1.250	0.97			1.42
URANIUM-235/236	PCI/G	0/9	9	0/9			0.600	0.600	0.156
THORIUM-232	PCI/G	8/9	9	1/9	0.618-1.400	0.93	0.600	0.600	1.36
THORIUM, TOTAL	MG/KG	9/9	6	1/9	4.340-12.768	7.99			12.4
RADIUM-228	PCI/G	9/9	9	0/9	0.600-1.100	0.90			1.25
THORIUM-228	PCI/G	7/9	9	2/9	0.670-1.600	1.19	0.600	0.600	1.43
NEPTUNIUM-237	PCI/G	0/9	9	0/9			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/9	9	0/9			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/9	9	0/9			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/9	9	1/9	0.510-0.510	0.51	0.500	5.000	0.424
TECHNETIUM-99	PCI/G	0/9	9	0/9			1.000	1.200	NA
RUTHENIUM-106	PCI/G	0/9	9	0/9			1.000	1.000	NA
CESIUM-137	PCI/G	3/9	9	0/9	0.240-0.300	0.26	0.200	0.200	0.711

AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							95% Background Concentration Value
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	9/9	8	2/9	0.634-1.960	1.07			1.12
URANIUM, TOTAL	MG/KG	8/9	7	5/9	2.550-7.350	4.56			3.69
URANIUM-234	PCI/G	8/9	8	4/9	0.800-1.751	1.10	0.600	0.600	1.04
THORIUM-230	PCI/G	8/8	8	1/8	0.679-2.400	1.38			1.91
RADIUM-226	PCI/G	7/8	7	0/8	0.760-1.220	0.90			1.47
URANIUM-235/236	PCI/G	1/9	8	0/9	0.048-0.048	0.05	0.600	0.600	0.150
THORIUM-232	PCI/G	7/8	8	0/8	0.700-1.010	0.87	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	8/8	7	0/8	3.340-9.120	7.32			11.1
RADIUM-228	PCI/G	7/8	7	0/8	0.610-1.090	0.90			1.31
THORIUM-228	PCI/G	8/8	8	1/8	0.470-2.150	1.06			1.38
NEPTUNIUM-237	PCI/G	0/8	8	0/8			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/8	8	0/8			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/8	8	0/8			0.600	0.600	NA
STRONTIUM-90	PCI/G	6/8	7	6/8	1.500-6.710	3.77	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/8	8	0/8			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/8	7	0/8			1.000	1.000	NA
CESIUM-137	PCI/G	1/8	7	1/8	0.350-0.350	0.35	0.200	0.200	NA

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5699

AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	4/4	4	2/4	0.700-7.000	2.41			1.12
URANIUM, TOTAL	MG/KG	2/4	3	1/4	3.000-11.500	7.25	1.000	1.000	3.69
URANIUM-234	PCI/G	4/4	4	2/4	0.700-6.500	2.24			1.04
THORIUM-230	PCI/G	3/4	4	2/4	1.000-2.400	1.80	0.600	0.600	1.91
RADIUM-226	PCI/G	2/4	3	0/4	0.781-1.360	1.07	0.300	0.300	1.47
URANIUM-235/236	PCI/G	1/4	4	1/4	0.700-0.700	0.70	0.600	0.600	0.150
THORIUM-232	PCI/G	2/4	4	0/4	0.900-1.100	1.00	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	2/4	3	0/4	8.208-9.970	9.09	5.472	5.472	11.1
RADIUM-228	PCI/G	1/4	3	1/4	1.320-1.320	1.32	0.500	0.600	1.31
THORIUM-228	PCI/G	3/4	4	1/4	0.700-1.720	1.17	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/4	4	0/4			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/4	4	0/4			0.600	0.600	NA
STRONTIUM-90	PCI/G	1/4	4	1/4	0.700-0.700	0.70	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/4	4	0/4			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/4	3	0/4			1.000	1.000	NA
CESIUM-137	PCI/G	0/4	3	0/4			0.200	0.200	NA

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	4/7	7	0/7	0.600-1.000	0.80	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	4/7	5	1/7	1.270-4.850	3.14	3.000	3.000	3.69
URANIUM-234	PCI/G	4/7	7	1/7	0.600-1.300	0.87	0.600	0.600	1.04
THORIUM-230	PCI/G	6/7	7	0/7	0.666-1.700	1.09	0.800	0.800	1.91
RADIUM-226	PCI/G	5/7	5	0/7	0.440-1.400	0.84			1.47
URANIUM-235/236	PCI/G	0/7	7	0/7			0.600	0.600	0.150
THORIUM-232	PCI/G	2/7	7	0/7	0.700-1.000	0.85	0.600	0.800	1.26
THORIUM, TOTAL	MG/KG	6/7	5	0/7	1.630-9.120	5.30	6.800	6.800	11.1
RADIUM-228	PCI/G	3/7	5	0/7	0.700-1.300	0.94	0.500	0.500	1.31
THORIUM-228	PCI/G	6/7	7	0/7	0.700-1.360	0.93	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/7	5	0/7			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/7	5	0/7			0.600	0.600	NA
STRONTIUM-90	PCI/G	2/7	6	2/7	0.700-2.900	1.80	0.500	0.500	.436
TECHNETIUM-99	PCI/G	1/7	7	1/7	43.600-43.600	43.60	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/7	5	0/7			1.000	1.000	NA
CESIUM-137	PCI/G	0/7	5	0/7			0.200	0.200	NA

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5699

AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	5/6	6	2/6	0.700-2.300	1.24	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	4/6	5	1/6	2.000-3.940	2.49	4.000	4.000	3.69
URANIUM-234	PCI/G	5/6	6	1/6	0.700-2.600	1.12	0.600	0.600	1.04
THORIUM-230	PCI/G	5/6	6	0/6	0.600-1.800	1.12	0.600	0.600	1.91
RADIUM-226	PCI/G	4/6	4	1/6	0.390-6.590	2.20			1.47
URANIUM-235/236	PCI/G	0/6	6	0/6			0.600	0.600	0.150
THORIUM-232	PCI/G	3/6	6	0/6	0.600-0.800	0.73	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	3/6	3	0/6	5.472-7.296	6.69	2.900	5.472	11.1
RADIUM-228	PCI/G	2/6	4	0/6	0.900-0.900	0.90	0.500	0.500	1.31
THORIUM-228	PCI/G	3/6	6	0/6	0.700-0.900	0.80	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/6	6	0/6			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/6	5	0/6			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/6	5	0/6			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/6	5	0/6			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/6	6	0/6			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/6	4	0/6			1.000	1.000	NA
CESIUM-137	PCI/G	0/6	4	0/6			0.200	0.200	NA

AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	4/5	5	1/5	0.800-3.200	1.40	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	3/5	5	1/5	1.000-6.000	3.00	1.000	2.100	3.69
URANIUM-234	PCI/G	3/5	5	1/5	0.700-2.900	1.47	0.600	0.600	1.04
THORIUM-230	PCI/G	3/5	5	1/5	1.100-2.000	1.47	0.600	0.600	1.91
RADIUM-226	PCI/G	5/5	5	0/5	0.300-0.799	0.49			1.47
URANIUM-235/236	PCI/G	0/5	5	0/5			0.600	0.600	0.150
THORIUM-232	PCI/G	2/5	5	1/5	0.600-3.000	1.80	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	3/5	3	1/5	1.010-27.360	11.28	5.472	5.472	11.1
RADIUM-228	PCI/G	2/5	5	1/5	0.696-1.500	1.10	0.500	0.500	1.31
THORIUM-228	PCI/G	2/5	5	1/5	0.800-1.600	1.20	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/5	5	0/5			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/5	5	0/5			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/5	5	0/5			0.600	0.600	NA
STRONTIUM-90	PCI/G	0/5	5	0/5			0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/5	5	0/5			1.000	1.500	NA
RUTHENIUM-106	PCI/G	0/5	5	0/5			1.000	1.000	NA
CESIUM-137	PCI/G	0/5	5	0/5			0.200	0.200	NA

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	20/34	31	5/34	0.600-1.900	1.02	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	19/34	30	7/34	1.000-10.600	3.41	1.000	4.110	3.69
URANIUM-234	PCI/G	20/34	32	5/34	0.600-1.800	0.97	0.600	0.600	1.04
THORIUM-230	PCI/G	24/34	34	0/34	0.600-1.750	1.00	0.600	0.600	1.91
RADIUM-226	PCI/G	24/34	31	1/34	0.304-1.900	0.62	0.300	0.300	1.47
URANIUM-235/236	PCI/G	0/34	32	0/34			0.600	0.600	0.150
THORIUM-232	PCI/G	6/34	34	0/34	0.600-1.170	0.94	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	13/34	32	0/34	1.200-10.600	5.00	2.600	5.472	11.1
RADIUM-228	PCI/G	7/34	31	1/34	0.751-1.700	1.12	0.500	0.500	1.31
THORIUM-228	PCI/G	12/34	34	3/34	0.667-19.500	2.58	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/34	34	0/34			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/34	34	0/34			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/34	34	0/34			0.600	0.600	NA
STRONTIUM-90	PCI/G	4/34	30	4/34	0.800-4.300	1.74	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/34	33	0/34			1.000	1.500	NA
RUTHENIUM-106	PCI/G	0/34	31	0/34			1.000	2.200	NA
CESIUM-137	PCI/G	0/34	31	0/34			0.200	0.300	NA

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	5/5	5	0/5	6790.000-9590.000	8340.00			11900
ANTIMONY	MG/KG	0/5	5	0/5			3.300	3.500	NA
ARSENIC	MG/KG	5/5	5	0/5	1.900-5.300	4.20			8.20
BARIUM	MG/KG	5/5	5	3/5	54.600-237.000	121.60			95.7
BERYLLIUM	MG/KG	1/5	5	1/5	1.300-1.300	1.30	0.960	1.200	0.6
CADMIUM	MG/KG	0/5	5	0/5			1.200	1.200	0.870
CALCIUM	MG/KG	2/5	5	2/5	4370.000-10200.000	7285.00	1080.000	2240.000	4340
CHROMIUM	MG/KG	5/5	5	0/5	8.900-12.100	10.84			15.5
COBALT	MG/KG	5/5	5	1/5	6.900-31.600	13.74			14.2
COPPER	MG/KG	5/5	5	2/5	8.900-16.800	12.16			14.1
CYANIDE	MG/KG	4/5	5	4/5	0.360-0.490	0.42	0.310	0.310	0.270
IRON	MG/KG	5/5	5	1/5	12400.000-21800.000	18580.00			21700
LEAD	MG/KG	5/5	5	2/5	16.900-28.500	22.12			26.4
MAGNESIUM	MG/KG	5/5	5	1/5	1200.000-3060.000	1934.00			2780
MANGANESE	MG/KG	5/5	5	2/5	504.000-3420.000	1366.00			1350
MERCURY	MG/KG	0/5	5	0/5			0.060	0.060	0.3
MOLYBDENUM	MG/KG	0/5	3	0/5			4.000	4.200	NA
NICKEL	MG/KG	5/5	5	0/5	6.100-11.700	9.26			20.9
POTASSIUM	MG/KG	5/5	5	2/5	632.000-1470.000	987.20			1230
SELENIUM	MG/KG	1/5	5	0/5	0.280-0.280	0.28	0.240	1.200	0.72
SILICON	MG/KG	4/5	5	0/5	256.000-1590.000	1096.50	82.800	82.800	1800
SILVER	MG/KG	0/5	5	0/5			0.470	0.500	NA

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	1/5	5	0/5	36.400-36.400	36.40	32.500	106.000	51.1
THALLIUM	MG/KG	1/5	5	0/5	0.320-0.320	0.32	0.240	0.250	0.58
VANADIUM	MG/KG	5/5	5	1/5	15.600-33.400	24.02			30.4
ZINC	MG/KG	5/5	5	2/5	39.100-115.000	71.52			59.6

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/5	5	0/5			12.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/5	5	0/5			12.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/5	5	0/5			12.000	12.000	
2-BUTANONE	UG/KG	0/5	3	0/5			12.000	12.000	
2-HEXANONE	UG/KG	0/5	3	0/5			12.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	0/5	3	0/5			12.000	12.000	
ACETONE	UG/KG	2/5	5	2/5	7.000-8.000	7.50	12.000	12.000	
BENZENE	UG/KG	0/5	5	0/5			12.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
BROMOFORM	UG/KG	0/5	5	0/5			12.000	12.000	
BROMOMETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
CARBON DISULFIDE	UG/KG	0/5	5	0/5			12.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/5	5	0/5			12.000	12.000	
CHLOROBENZENE	UG/KG	0/5	5	0/5			12.000	12.000	
CHLOROETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
CHLOROFORM	UG/KG	0/5	5	0/5			12.000	12.000	
CHLOROMETHANE	UG/KG	0/5	5	0/5			12.000	12.000	

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/5	5	0/5			12.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/5	5	0/5			12.000	12.000	
ETHYLBENZENE	UG/KG	0/5	5	0/5			12.000	12.000	
METHYLENE CHLORIDE	UG/KG	0/5	5	0/5			12.000	12.000	
STYRENE	UG/KG	0/5	5	0/5			12.000	12.000	
TETRACHLOROETHENE	UG/KG	1/5	5	1/5	1.000-1.000	1.00	12.000	12.000	
TOLUENE	UG/KG	1/5	5	1/5	2.000-2.000	2.00	12.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/5	5	0/5			12.000	12.000	
TRICHLOROETHENE	UG/KG	0/5	5	0/5			12.000	12.000	
VINYL ACETATE	UG/KG	0/5	4	0/5			12.000	12.000	
VINYL CHLORIDE	UG/KG	0/5	5	0/5			12.000	12.000	
XYLENES, TOTAL	UG/KG	0/5	5	0/5			12.000	12.000	

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,1-DICHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,1-DICHLOROETHENE	UG/KG	0/1	1	0/1			5.000	5.000	
1,2-DICHLOROETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/1	1	0/1			5.000	5.000	
1,2-DICHLOROPROPANE	UG/KG	0/1	1	0/1			5.000	5.000	
2-BUTANONE	UG/KG	0/1	1	0/1			10.000	10.000	
2-HEXANONE	UG/KG	0/1	1	0/1			10.000	10.000	
4-METHYL-2-PENTANONE	UG/KG	0/1	1	0/1			10.000	10.000	
ACETONE	UG/KG	0/1	1	0/1			10.000	10.000	
BENZENE	UG/KG	0/1	1	0/1			5.000	5.000	
BROMODICHLOROMETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
BROMOFORM	UG/KG	0/1	1	0/1			5.000	5.000	
BROMOMETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
CARBON DISULFIDE	UG/KG	0/1	1	0/1			5.000	5.000	
CARBON TETRACHLORIDE	UG/KG	0/1	1	0/1			5.000	5.000	
CHLOROBENZENE	UG/KG	0/1	1	0/1			5.000	5.000	
CHLOROETHANE	UG/KG	0/1	1	0/1			10.000	10.000	
CHLOROFORM	UG/KG	0/1	1	0/1			5.000	5.000	
CHLOROMETHANE	UG/KG	0/1	1	0/1			10.000	10.000	

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			5.000	5.000	
DIBROMOCHLOROMETHANE	UG/KG	0/1	1	0/1			5.000	5.000	
ETHYLBENZENE	UG/KG	1/1	1	1/1	3.000-3.000	3.00			
METHYLENE CHLORIDE	UG/KG	0/1	1	0/1			5.000	5.000	
STYRENE	UG/KG	0/1	1	0/1			5.000	5.000	
TETRACHLOROETHENE	UG/KG	0/1	1	0/1			5.000	5.000	
TOLUENE	UG/KG	1/1	1	1/1	2.000-2.000	2.00			
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/1	1	0/1			5.000	5.000	
TRICHLOROETHENE	UG/KG	0/1	1	0/1			5.000	5.000	
VINYL ACETATE	UG/KG	0/1	1	0/1			10.000	10.000	
VINYL CHLORIDE	UG/KG	0/1	1	0/1			10.000	10.000	
XYLENES, TOTAL	UG/KG	1/1	1	1/1	30.000-30.000	30.00			

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/5	5	0/5			400.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/5	5	0/5			400.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/5	5	0/5			400.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/5	5	0/5			400.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/5	5	0/5			990.000	1000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/5	5	0/5			400.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/5	5	0/5			400.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/5	5	0/5			400.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/5	5	0/5			990.000	1000.000	
2,4-DINITROTOLUENE	UG/KG	0/5	5	0/5			400.000	420.000	
2,6-DINITROTOLUENE	UG/KG	0/5	5	0/5			400.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/5	5	0/5			400.000	420.000	
2-CHLOROPHENOL	UG/KG	0/5	5	0/5			400.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/5	5	0/5			400.000	420.000	
2-METHYLPHENOL	UG/KG	0/5	5	0/5			400.000	420.000	
2-NITROANILINE	UG/KG	0/5	5	0/5			990.000	1000.000	
2-NITROPHENOL	UG/KG	0/5	5	0/5			400.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/5	5	0/5			400.000	420.000	
3-NITROANILINE	NONE	0/5	5	0/5			990.000	1000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/5	5	0/5			990.000	1000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/5	5	0/5			400.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/5	5	0/5			400.000	420.000	

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/5	5	0/5			400.000	420.000	
4-METHYLPHENOL	UG/KG	0/5	5	0/5			400.000	420.000	
4-NITROANILINE	UG/KG	0/5	5	0/5			990.000	1000.000	
4-NITROPHENOL	UG/KG	0/5	5	0/5			990.000	1000.000	
ACENAPHTHENE	UG/KG	0/5	5	0/5			400.000	420.000	
ACENAPHTHYLENE	UG/KG	0/5	5	0/5			400.000	420.000	
ANTHRACENE	UG/KG	0/5	5	0/5			400.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	2/5	5	2/5	91.000-110.000	100.50	400.000	420.000	
BENZO(A)PYRENE	UG/KG	2/5	5	2/5	88.000-110.000	99.00	400.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	2/5	5	2/5	98.000-110.000	104.00	400.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	2/5	5	2/5	45.000-52.000	48.50	400.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	2/5	5	2/5	130.000-150.000	140.00	400.000	420.000	
BENZOIC ACID	UG/KG	0/5	5	0/5			990.000	1000.000	
BENZYL ALCOHOL	UG/KG	0/5	5	0/5			400.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/5	5	0/5			400.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/5	5	0/5			400.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/5	5	0/5			400.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	2/5	5	2/5	46.000-75.000	60.50	400.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/5	5	0/5			400.000	420.000	
CARBAZOLE	UG/KG	0/2	2	0/2			400.000	400.000	
CHRYSENE	UG/KG	2/5	5	2/5	140.000-160.000	150.00	400.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/5	5	0/5			400.000	420.000	

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/5	5	0/5			400.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/5	5	0/5			400.000	420.000	
DIBENZOFURAN	UG/KG	0/5	5	0/5			400.000	420.000	
DIETHYL PHTHALATE	UG/KG	0/5	5	0/5			400.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/5	5	0/5			400.000	420.000	
FLUORANTHENE	UG/KG	2/5	5	2/5	330.000-390.000	360.00	400.000	420.000	
FLUORENE	UG/KG	0/5	5	0/5			400.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/5	5	0/5			400.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/5	5	0/5			400.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/5	5	0/5			400.000	420.000	
HEXACHLOROETHANE	UG/KG	0/5	5	0/5			400.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	2/5	5	2/5	55.000-67.000	61.00	400.000	420.000	
ISOPHORONE	UG/KG	0/5	5	0/5			400.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/5	5	0/5			400.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/5	5	0/5			400.000	420.000	
NAPHTHALENE	UG/KG	0/5	5	0/5			400.000	420.000	
NITROBENZENE	UG/KG	0/5	5	0/5			400.000	420.000	
P-CHLOROANILINE	UG/KG	0/5	5	0/5			400.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/5	5	0/5			990.000	1000.000	
PHENANTHRENE	UG/KG	2/5	5	2/5	210.000-270.000	240.00	400.000	420.000	
PHENOL	UG/KG	0/5	5	0/5			400.000	420.000	
PYRENE	UG/KG	2/5	5	2/5	240.000-280.000	260.00	400.000	420.000	

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/8	7	0/8			3.300	4.100	
4,4'-DDE	UG/KG	0/8	7	0/8			3.300	4.100	
4,4'-DDT	UG/KG	1/8	7	1/8	15.000-15.000	15.00	3.500	4.100	
ALDRIN	UG/KG	0/8	7	0/8			1.700	2.100	
ALPHA-BHC	UG/KG	0/8	7	0/8			1.700	2.100	
ALPHA-CHLORDANE	UG/KG	1/8	7	1/8	9.700-9.700	9.70	1.800	2.100	
AROCLOR-1016	UG/KG	0/8	7	0/8			33.000	41.000	
AROCLOR-1221	UG/KG	0/8	7	0/8			68.000	84.000	
AROCLOR-1232	UG/KG	0/8	7	0/8			33.000	41.000	
AROCLOR-1242	UG/KG	0/8	7	0/8			33.000	41.000	
AROCLOR-1248	UG/KG	0/8	7	0/8			33.000	41.000	
AROCLOR-1254	UG/KG	0/8	7	0/8			33.000	41.000	
AROCLOR-1260	UG/KG	0/8	7	0/8			33.000	41.000	
BETA-BHC	UG/KG	0/8	7	0/8			1.700	2.100	
DELTA-BHC	UG/KG	0/8	7	0/8			1.700	2.100	
DIELDRIN	UG/KG	0/8	7	0/8			3.300	4.100	
ENDOSULFAN II	UG/KG	0/8	7	0/8			3.300	4.100	
ENDOSULFAN SULFATE	UG/KG	0/8	7	0/8			3.300	4.100	
ENDOSULFAN-I	UG/KG	0/8	7	0/8			1.700	2.100	
ENDRIN	UG/KG	0/8	7	0/8			3.300	4.100	
ENDRIN ALDEHYDE	UG/KG	0/8	7	0/8			3.300	4.100	
ENDRIN KETONE	UG/KG	0/8	7	0/8			3.300	4.100	

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AREA: Area Outside of FEMP Adjacent to Boundary
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/8	7	0/8			1.700	2.100	
GAMMA-CHLORDANE	UG/KG	1/8	7	1/8	5.300-5.300	5.30	1.800	2.100	
HEPTACHLOR	UG/KG	0/8	7	0/8			1.700	2.100	
HEPTACHLOR EPOXIDE	UG/KG	0/8	7	0/8			1.700	2.100	
METHOXYCHLOR	UG/KG	0/8	7	0/8			17.000	21.000	
TOXAPHENE	UG/KG	0/8	7	0/8			170.000	210.000	

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D.2.31 AREA 2-5 MILES OUTSIDE FEMP BOUNDARY

Contamination in surface soil in the area 2-5 miles outside the FEMP property boundary was investigated under the 1986 soil assessment in support of the litigation filed against the National Lead of Ohio (NLO), the operators of the former Feed Materials Production Center (FMPC). This area, as shown in Figure D.2-35, is defined on the basis of the 1986 soil assessment results. This area is defined by total uranium concentrations less than 4 μg/kg, which approximates the background concentration of total uranium in surface soil. However, a few isolated locations have total uranium concentrations slightly higher than this value. Almost all soil samples were collected and analyzed for isotopic uranium activities during the 1986 soil assessment. Descriptions of the soil sampling programs are provided in the following sections.

Approximately 180 samples of surface soil were collected in this area as part of the large-scale uranium assessment project in support of the litigation case. Using a 6.4-cm-diameter corer, core samples were collected in three different depth levels (0 to 2.0 inches, 2.0 to 4.0 inches, and 4.0 to 6.0 inches) at each location. These sample locations are identified in Figure D.2-35 as LIT, followed by four-digit numbers. Most of these samples were analyzed for total uranium levels, while some of them were also analyzed for isotopic uranium.

Two samples in this area were collected under a surface soil sampling program in May through June 1988 for Task 3.4.2 of the site-wide RI/FS Work Plan (March 1988). Soil sampling locations were identified as Offsite-13 and Offsite-16 in Figure D.2-35. These samples were collected at 0 to 2.0 inches below the ground surface and were analyzed for activities of isotopic uranium.

Table D.2-31 presents the distribution of uranium values in the surface soil in this area. The maximum detection of each uranium constituent is compared to the 95th percentile background value (background) to determine whether the constituent is elevated above background.

Surface Soil

A total of 180 soil samples were collected in the 0- to 0.5-foot depth interval of surface soil in this area. Most of the samples were collected from the top depth interval of 0 to 2.0 inches and were analyzed for total uranium. Some samples were also analyzed for activities of isotopic uranium.

Within the depth interval of 0 to 0.5 feet, a few samples evidenced values of isotopic uranium (i.e., uranium-238 and uranium-234) and total uranium at levels slightly greater than background. Uranium-235/236 was also detected in a number of samples, but activities were less than background.

A limited number of samples contained uranium at levels exceeding their background as follows:

- Uranium-238: 5 of 52 samples or 9.6 percent
- Total uranium: 16 of 180 samples or 8.9 percent
- Uranium-234: 8 of 52 samples or 15 percent
- Uranium-235/236: 0 of 51 samples or 0 percent.

The ranges of uranium detections exceeding background (as noted in parentheses) are as follows:

- Uranium-238: 1.41 to 1.83 pCi/g (background: 1.24 pCi/g)
- Uranium total: 3.76 to 5.13 pCi/g (background: 3.73 mg/kg)
- Uranium-234: 1.24 to 1.68 pCi/g (background: 1.24 pCi/g)

The locations where uranium detections exceeded background were mainly in the areas east, northeast, and southwest of the FEMP. The locations east and northeast are primarily downwind of the FEMP; consequently contamination present at those locations may be attributed to airborne deposition of emissions from the FEMP.

In addition, one sample was collected from sampling location LIT7572 at a depth of 0 to 1.06 feet and was included in the data base under the depth interval of 1.0 to 1.5 feet. This sample showed detections of uranium-238, uranium-234, and total uranium at levels of 1.51 pCi/g, 1.60 pCi/g, and 4.72 mg/kg, respectively. These levels were slightly above background.

No other radionuclides or chemical constituents were analyzed in the surface soil sample from the area 2-5 miles outside the FEMP boundary.

Subsurface Soil

No subsurface soil samples were collected from this area.

Conclusion

The majority of surface soil samples collected from the area 2-5 miles outside the FEMP boundary in the 0- to 0.5-foot depth interval did not exhibit elevated uranium contamination. The few samples

that exhibited uranium contamination at levels slightly above background were located primarily in the areas east, northeast and southwest of the FEMP, immediately outside the 2 mile boundary.

Although the analytical results do not rule out the FEMP as the source of contamination, laboratory precision may contribute to the detection of slightly elevated isotopic uranium and total uranium levels. Note that results from this area were used to develop the background activities for radiological constituents, and small variations in levels were expected. The potential pathway for migration of contaminants into surface soil outside the FEMP is airborne deposition of constituents from sources within the FEMP. The predominant wind directions in the area tend to support the observation of slightly elevated isotopic uranium and total uranium levels in the areas east and northeast of the FEMP. Other potential sources of contamination in this area (e.g., industrial facilities in the south of the FEMP) may also contribute to the uranium that was observed in the areas south and southwest of the FEMP.

TABLE D.2-31
AREA 2-5 MILES OUTSIDE OF FEMP BOUNDARY
PARAMETER OCCURRENCES BY DEPTH

RADIONUCLIDES (pCi/g)

Depth Interval, Feet	Number of Samples	Uranium-238	Total Uranium	Uranium-234	Thorium-230	Radium-226	Uranium-235/236	Thorium-232	Total Thorium	Radium-228	Thorium-228	Neptunium-237	Plutonium-239/240	Plutonium-238	Strontium-90	Technetium-99	Ruthenium-106	Cesium-137
Surface Soil:																		
95 % Background Value		1.24	3.73 ug/g	1.24	1.97	1.42	0.156	1.36	12.4 ug/g	1.25	1.43	NA	NA	NA	0.424	ND	ND	0.711
0 - 0.5	84	●	●	●			○											
0.5 - 1	1	●	●	●			○											
1 - 1.5	0																	
Subsurface Soil:																		
95 % Background Value		1.12	3.69 ug/g	1.04	1.91	1.47	0.150	1.26	11.1 ug/g	1.31	1.38	NA	NA	NA	0.436	ND	ND	ND
1.5 - 3	0																	
3 - 5	0																	
5 - 10	0																	
10 - 15	0																	
15 - 20	0																	

INORGANICS (mg/kg)

Depth Interval, Feet	Number of Samples	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Vanadium	Zinc
Surface Soil:																											
95 % Background Value		11,900	ND	8.2	95.7	0.60	0.87	4340	15.5	14.2	14.1	0.27	21,700	26.4	2780	1350	0.30	ND	20.9	1230	0.72	1800	ND	51.1	0.58	30.4	59.6
0 - 0.5	0																										
0.5 - 1	0																										
1 - 1.5	0																										
Subsurface Soil:																											
95 % Background Value		16,100	ND	9.57	119	0.62	0.91	160,000	20.7	15.7	20	0.17	30,700	15.6	42,600	1300	0.29	2.70	34.3	1980	ND	1590	ND	285	0.49	37.8	82
1.5 - 3	0																										
3 - 5	0																										
5 - 10	0																										
10 - 15	0																										
15 - 20	0																										

ND - Not detected in background study.

NA - Not analyzed in background study.

"Blank" - Not analyzed.

- Analyzed and not detected.

○ Detection less than 95 percentile background value.

● Detection above but < 2X of 95 percentile background value.

Detection 2X to 5X 95 percentile background value.

Detection greater than 5X 95 percentile background value.

X Detection where background level not recorded.

Area 2 to 5 Miles Outside FEMP Boundary

Summary Soil Statistics

AREA: Area 2-5 Miles Outside of FEMP Boundary
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	52/52	2	5/52	0.500-1.830	1.01			1.24
URANIUM, TOTAL	MG/KG	180/180	2	16/180	1.551-5.126	2.86			3.73
URANIUM-234	PCI/G	52/52	2	8/52	0.541-1.677	1.00			1.24
URANIUM-235/236	PCI/G	49/51	2	0/51	0.018-0.098	0.05	0.600	0.600	0.156

AREA: Area 2-5 Miles Outside of FEMP Boundary
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	1/1	0	1/1	1.512-1.512	1.51			1.24
URANIUM, TOTAL	MG/KG	1/1	0	1/1	4.723-4.723	4.72			3.73
URANIUM-234	PCI/G	1/1	0	1/1	1.595-1.595	1.60			1.24
URANIUM-235/236	PCI/G	1/1	0	0/1	0.083-0.083	0.08			0.156

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Production Area and Other Process Areas

AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
URANIUM-238	PCI/G	461/518	214	449/518	0.300-19067.000	198.09	3.600	120.000	1.24
URANIUM, TOTAL	MG/KG	757/886	249	743/886	1.000-90350.000	517.39	3.000	34.400	3.73
URANIUM-234	PCI/G	393/403	209	380/403	0.400-18093.000	218.03	2.040	19.000	1.24
THORIUM-230	PCI/G	394/424	242	267/424	0.300-2729.000	27.57	0.100	64.000	1.97
RADIUM-226	PCI/G	354/377	199	163/377	0.300-2950.000	20.66	0.250	2.000	1.42
LEAD-210	PCI/G	5/5	1	5/5	3.700-168.580	61.93			1.30
POLONIUM-210	PCI/G	3/3	3	3/3	14.860-50.830	29.35			NA
URANIUM-235/236	PCI/G	358/423	229	353/423	0.101-1021.000	13.68	0.100	0.600	0.156
THORIUM-232	PCI/G	466/517	224	210/517	0.200-283.000	5.40	0.100	11.400	1.36
THORIUM, TOTAL	MG/KG	500/787	108	247/787	1.010-2581.013	45.31	1.200	45.000	12.4
RADIUM-228	PCI/G	218/276	201	97/276	0.520-546.000	9.20	0.500	28.500	1.25
THORIUM-228	PCI/G	373/393	211	168/393	0.200-315.000	5.23	0.100	0.910	1.43
NEPTUNIUM-237	PCI/G	2/182	161	2/182	0.214-2.630	1.42	0.200	2.990	NA
PLUTONIUM-239/240	PCI/G	20/205	182	20/205	0.300-12.900	2.93	0.200	2.990	NA
PLUTONIUM-238	PCI/G	20/205	182	20/205	0.207-151.000	21.89	0.200	5.710	NA
STRONTIUM-90	PCI/G	85/213	175	85/213	0.590-26.300	2.03	0.500	2.000	0.424
TECHNETIUM-99	PCI/G	75/211	162	75/211	1.100-602.000	26.20	1.000	17.000	NA
RUTHENIUM-106	PCI/G	3/277	157	3/277	2.250-10.550	7.52	1.000	71.000	NA
CESIUM-137	PCI/G	139/305	170	31/305	0.209-4.260	0.65	0.200	7.800	0.711
GROSS ALPHA	PCI/G	244/266	3	244/266	4.340-1900.000	172.09	9.300	28.000	
GROSS BETA	PCI/G	237/262	3	237/262	4.530-2000.000	176.71	16.000	40.000	
ACTINIUM-227	PCI/G	4/18	18	4/18	0.650-3.952	2.15	0.100	1.600	0.09

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 0 - .5 FEET									
PROTACTINIUM-231	PCI/G	1/18	18	1/18	5.040-5.040	5.04	0.700	9.000	ND
RADIUM-224	PCI/G	18/18	18	17/18	0.313-5.357	2.08			0.900
THORIUM-234		18/18	18	18/18	2.050-2289.000	258.96			NA
URANIUM-236	PCI/G	84/111	0	76/111	0.050-5.000	0.41	0.028	2.500	0.088

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: .5 - 1 FEET									
URANIUM-238	PCI/G	108/128	62	103/128	0.700-1651.000	87.67	2.500	68.600	1.24
URANIUM, TOTAL	MG/KG	163/244	70	157/244	2.200-6140.000	212.22	11.000	11.000	3.73
URANIUM-234	PCI/G	100/101	62	94/101	0.810-808.000	79.99	4.100	4.100	1.24
THORIUM-230	PCI/G	79/85	51	55/85	0.956-2749.000	46.30	0.100	0.600	1.97
RADIUM-226	PCI/G	103/106	55	46/106	0.400-2630.000	29.83	0.300	1.000	1.42
LEAD-210	PCI/G	1/1	1	1/1	37.090-37.090	37.09			1.30
POLONIUM-210	PCI/G	5/5	5	5/5	1.455-84.500	38.68			NA
URANIUM-235/236	PCI/G	74/101	62	73/101	0.130-41.500	5.59	0.100	0.600	0.156
THORIUM-232	PCI/G	95/112	51	32/112	0.300-57.400	3.34	0.100	4.200	1.36
THORIUM, TOTA.	MG/KG	118/205	21	45/205	2.440-523.498	27.74	5.472	23.000	12.4
RADIUM-228	PCI/G	69/79	55	22/79	0.570-217.000	6.54	0.500	13.100	1.25
THORIUM-228	PCI/G	80/84	50	31/84	0.200-67.000	3.56	0.100	0.600	1.43
NEPTUNIUM-237	PCI/G	1/72	61	1/72	0.710-0.710	0.71	0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	4/77	67	4/77	1.100-4.300	2.03	0.200	0.600	NA
PLUTONIUM-238	PCI/G	5/79	67	5/79	0.900-67.400	19.76	0.200	0.600	NA
STRONTIUM-90	PCI/G	24/71	57	24/71	0.510-4.000	1.57	0.500	1.220	0.424
TECHNETIUM-99	PCI/G	16/82	61	16/82	1.100-56.900	7.52	1.000	22.000	NA
RUTHENIUM-106	PCI/G	0/89	49	0/89			1.000	34.000	NA
CESIUM-137	PCI/G	5/94	53	1/94	0.300-1.100	0.64	0.200	2.900	0.711
GROSS ALPHA	PCI/G	23/23	3	23/23	7.000-1750.000	151.45			
GROSS BETA	PCI/G	23/23	3	23/23	19.700-1520.000	134.91			
URANIUM-236	PCI/G	4/5	0	1/5	0.040-0.100	0.06	1.500	1.500	0.088

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1 - 1.5 FEET									
URANIUM-238	PCI/G	108/126	76	91/126	0.300-981.000	68.14	1.100	12.400	1.24
URANIUM, TOTAL	MG/KG	228/349	118	206/349	1.500-8059.000	188.63	5.000	1000.000	3.73
URANIUM-234	PCI/G	107/109	76	90/109	0.300-873.000	61.03	4.200	4.900	1.24
THORIUM-230	PCI/G	116/120	88	38/120	0.300-272.000	6.10	0.100	0.600	1.97
RADIUM-226	PCI/G	102/116	81	19/116	0.300-383.000	5.41	0.250	0.800	1.42
LEAD-210	PCI/G	1/1	1	0/1	1.251-1.251	1.25			1.30
POLONIUM-210	PCI/G	2/2	2	2/2	1.902-11.360	6.63			NA
URANIUM-235/236	PCI/G	64/107	74	60/107	0.110-72.000	7.61	0.100	0.600	0.156
THORIUM-232	PCI/G	118/136	87	26/136	0.300-61.600	2.27	0.100	0.600	1.36
THORIUM, TOTAL	MG/KG	162/284	40	38/284	2.100-561.800	19.48	2.860	45.000	12.4
RADIUM-228	PCI/G	62/105	86	18/105	0.600-105.000	5.01	0.500	5.000	1.25
THORIUM-228	PCI/G	109/120	88	26/120	0.200-55.800	2.32	0.100	0.600	1.43
NEPTUNIUM-237	PCI/G	0/51	41	0/51			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	3/54	44	3/54	0.700-6.500	2.64	0.200	0.600	NA
PLUTONIUM-238	PCI/G	4/54	44	4/54	0.800-8.200	3.55	0.200	0.600	NA
STRONTIUM-90	PCI/G	20/51	41	20/51	0.600-6.220	1.78	0.500	1.600	0.424
TECHNETIUM-99	PCI/G	13/64	45	13/64	1.100-44.200	8.84	1.000	21.000	NA
RUTHENIUM-106	PCI/G	0/64	37	0/64			1.000	12.500	NA
CESIUM-137	PCI/G	4/72	45	0/72	0.250-0.469	0.36	0.200	1.200	0.711
GROSS ALPHA	PCI/G	7/9	0	7/9	4.700-190.000	34.19	5.700	14.000	
GROSS BETA	PCI/G	8/9	0	8/9	15.700-161.000	43.51	22.000	22.000	
URANIUM-236	PCI/G	1/3	0	1/3	0.140-0.140	0.14	0.040	0.060	0.088

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 1.5 - 3 FEET									
URANIUM-238	PCI/G	89/91	72	63/91	0.300-317.000	15.68	4.000	7.600	1.12
URANIUM, TOTAL	MG/KG	236/367	145	199/367	1.000-54000.000	344.61	0.100	11.000	3.69
URANIUM-234	PCI/G	89/89	72	65/89	0.400-319.000	15.38			1.04
THORIUM-230	PCI/G	83/87	72	15/87	0.300-72.200	2.54	0.600	1.300	1.91
RADIUM-226	PCI/G	82/91	75	11/91	0.300-4.600	1.09	0.250	0.300	1.47
LEAD-210	PCI/G	3/7	7	3/7	2.393-17.980	7.90	0.500	1.018	.850
POLONIUM-210	PCI/G	10/10	10	10/10	1.080-6.413	2.47			NA
URANIUM-235/236	PCI/G	32/87	70	31/87	0.120-36.200	4.26	0.100	0.600	0.150
THORIUM-232	PCI/G	76/90	73	8/90	0.300-5.560	1.00	0.100	1.100	1.26
THORIUM, TOTAL	MG/KG	131/271	70	29/271	0.912-136.000	12.16	2.790	45.000	11.1
RADIUM-228	PCI/G	50/93	79	9/93	0.577-23.900	1.70	0.500	0.570	1.31
THORIUM-228	PCI/G	78/84	69	15/84	0.300-3.890	1.16	0.100	1.000	1.38
NEPTUNIUM-237	PCI/G	0/42	39	0/42			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	3/45	45	3/45	0.300-0.885	0.50	0.200	0.600	NA
PLUTONIUM-238	PCI/G	2/46	45	2/46	0.400-2.770	1.59	0.200	0.600	NA
STRONTIUM-90	PCI/G	17/49	43	17/49	0.511-47.600	4.90	0.500	2.000	.436
TECHNETIUM-99	PCI/G	13/50	44	13/50	1.020-37.900	6.94	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/44	37	0/44			1.000	3.100	NA
CESIUM-137	PCI/G	4/57	49	4/57	0.260-0.300	0.29	0.200	0.600	NA
GROSS ALPHA	PCI/G	28/29	0	28/29	8.300-1054.000	60.98	10.000	10.000	
GROSS BETA	PCI/G	29/29	0	29/29	17.100-81.200	38.65			

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AREA: PRODUCTION AREA
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
URANIUM-238	PCI/G	28/28	28	17/28	0.400-82.500	8.95			1.12
URANIUM, TOTAL	MG/KG	122/164	75	99/164	1.550-69300.000	920.57	4.000	11.000	3.69
URANIUM-234	PCI/G	28/28	28	15/28	0.400-78.000	8.39			1.04
THORIUM-230	PCI/G	33/40	40	5/40	0.400-4.610	1.41	0.300	0.700	1.91
RADIUM-226	PCI/G	30/38	38	6/38	0.300-137.000	5.57	0.250	3.000	1.47
LEAD-210	PCI/G	9/10	10	9/10	1.211-34.000	6.77	1.043	1.043	.850
POLONIUM-210	PCI/G	19/19	19	19/19	1.090-20.900	4.29			NA
URANIUM-235/236	PCI/G	7/26	26	7/26	0.200-9.500	3.05	0.100	0.600	0.150
THORIUM-232	PCI/G	32/40	40	6/40	0.400-2.410	0.84	0.200	0.600	1.26
THORIUM, TOTAL	MG/KG	79/137	50	18/137	1.420-83.000	10.04	3.110	45.000	11.1
RADIUM-228	PCI/G	9/39	39	2/39	0.521-2.580	1.15	0.500	4.000	1.31
THORIUM-228	PCI/G	35/40	40	4/40	0.200-3.500	0.89	0.400	0.600	1.38
NEPTUNIUM-237	PCI/G	0/7	7	0/7			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	3/23	23	3/23	0.300-0.700	0.47	0.200	0.600	NA
PLUTONIUM-238	PCI/G	0/23	23	0/23			0.200	0.600	NA
STRONTIUM-90	PCI/G	5/24	24	5/24	0.570-9.300	3.29	0.500	3.500	.436
TECHNETIUM-99	PCI/G	5/31	31	5/31	1.240-7.700	3.64	1.000	1.200	NA
RUTHENIUM-106	PCI/G	0/16	16	0/16			1.000	24.300	NA
CESIUM-137	PCI/G	2/35	35	2/35	0.295-1.310	0.80	0.200	1.400	NA
GROSS ALPHA	PCI/G	18/20	0	18/20	6.900-41.900	16.85	5.000	6.100	
GROSS BETA	PCI/G	20/20	0	20/20	16.600-53.500	32.46			
PROTACTINIUM-231	PCI/G	0/1	1	0/1			7.200	7.200	ND

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 3 - 5 FEET									
RADIUM-224	PCI/G	1/1	1	1/1	1.330-1.330	1.33			1.01

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 5 - 10 FEET									
URANIUM-238	PCI/G	108/109	108	70/109	0.300-144.000	11.46	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	274/425	190	223/425	0.500-4763.000	75.09	0.100	11.000	3.69
URANIUM-234	PCI/G	109/109	108	68/109	0.300-144.000	11.06			1.04
THORIUM-230	PCI/G	123/134	133	14/134	0.400-20.300	1.58	0.300	0.800	1.91
RADIUM-226	PCI/G	100/115	113	12/115	0.300-11.000	1.03	0.250	0.300	1.47
LEAD-210	PCI/G	22/28	28	21/28	0.842-21.200	3.92	0.572	1.200	.850
POLONIUM-210	PCI/G	41/41	41	41/41	0.682-34.370	3.43			NA
URANIUM-235/236	PCI/G	32/106	105	32/106	0.200-12.100	2.56	0.100	0.600	0.150
THORIUM-232	PCI/G	110/134	134	10/134	0.300-8.070	0.92	0.100	0.800	1.26
THORIUM, TOTAL	MG/KG	215/411	114	45/411	0.912-290.000	11.06	2.840	45.000	11.1
RADIUM-228	PCI/G	37/118	117	6/118	0.510-17.600	1.31	0.500	0.600	1.31
THORIUM-228	PCI/G	121/132	131	11/132	0.200-14.600	1.00	0.600	0.700	1.38
NEPTUNIUM-237	PCI/G	2/35	35	2/35	0.288-0.305	0.30	0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	8/59	57	8/59	0.400-5.500	1.75	0.200	0.600	NA
PLUTONIUM-238	PCI/G	4/59	57	4/59	0.344-158.000	40.32	0.200	1.200	NA
STRONTIUM-90	PCI/G	15/70	69	15/70	0.600-10.700	3.00	0.500	3.300	.436
TECHNETIUM-99	PCI/G	14/99	99	14/99	1.240-205.000	19.50	1.000	1.200	NA
RUTHENIUM-106	PCI/G	0/41	41	0/41			1.000	8.100	NA
CESIUM-137	PCI/G	6/82	82	6/82	0.400-2.940	1.40	0.200	0.600	NA
GROSS ALPHA	PCI/G	49/54	2	49/54	5.100-282.000	26.29	4.400	6.600	
GROSS BETA	PCI/G	54/54	2	54/54	9.900-159.000	37.06			

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 10 - 15 FEET									
URANIUM-238	PCI/G	36/38	38	19/38	0.200-267.000	19.95	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	178/328	115	143/328	1.000-629.000	46.00	2.066	11.000	3.69
URANIUM-234	PCI/G	37/38	38	19/38	0.200-255.000	19.67	0.600	0.600	1.04
THORIUM-230	PCI/G	47/53	53	5/53	0.500-20.000	1.69	0.100	0.600	1.91
RADIUM-226	PCI/G	38/47	41	1/47	0.300-2.440	0.79	0.250	0.300	1.47
POLONIUM-210	PCI/G	2/2	2	2/2	0.627-1.640	1.13			NA
URANIUM-235/236	PCI/G	9/37	37	9/37	0.200-17.300	5.84	0.100	0.600	0.150
THORIUM-232	PCI/G	37/53	53	1/53	0.200-2.350	0.73	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	123/322	107	20/322	1.824-36.000	8.11	3.000	23.000	11.1
RADIUM-228	PCI/G	23/47	42	2/47	0.590-2.350	0.91	0.500	0.700	1.31
THORIUM-228	PCI/G	40/51	51	1/51	0.200-2.800	0.80	0.100	0.600	1.38
NEPTUNIUM-237	PCI/G	0/22	22	0/22			0.200	0.600	NA
PLUTONIUM-239/240	PCI/G	1/30	30	1/30	2.100-2.100	2.10	0.200	0.700	NA
PLUTONIUM-238	PCI/G	0/30	30	0/30			0.200	2.100	NA
STRONTIUM-90	PCI/G	6/30	30	6/30	0.600-10.100	2.95	0.500	0.600	.436
TECHNETIUM-99	PCI/G	3/50	50	3/50	1.310-2.820	1.92	1.000	1.200	NA
RUTHENIUM-106	PCI/G	0/35	35	0/35			1.000	1.350	NA
CESIUM-137	PCI/G	2/43	43	2/43	0.800-1.000	0.90	0.200	0.200	NA
GROSS ALPHA	PCI/G	11/16	1	11/16	5.800-116.000	25.31	3.600	11.000	
GROSS BETA	PCI/G	15/16	0	15/16	7.100-102.000	22.55	5.400	5.400	

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 15 - 20 FEET									
URANIUM-238	PCI/G	20/20	20	13/20	0.600-71.600	11.96			1.12
URANIUM, TOTAL	MG/KG	127/179	74	104/179	1.000-735.000	47.40	1.000	11.000	3.69
URANIUM-234	PCI/G	19/19	19	12/19	0.600-66.900	11.62			1.04
THORIUM-230	PCI/G	29/31	31	5/31	0.600-34.200	2.62	0.600	0.600	1.91
RADIUM-226	PCI/G	22/23	23	1/23	0.400-3.170	0.94	0.300	0.300	1.47
URANIUM-235/236	PCI/G	6/20	20	6/20	0.600-5.610	2.70	0.100	0.600	0.150
THORIUM-232	PCI/G	22/30	30	2/30	0.500-2.080	0.91	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	69/166	67	11/166	1.030-34.000	8.92	2.770	23.000	11.1
RADIUM-228	PCI/G	16/24	24	1/24	0.600-2.580	0.91	0.500	0.600	1.31
THORIUM-228	PCI/G	24/30	30	3/30	0.500-3.380	1.00	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/13	13	0/13			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/9	9	0/9			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/9	9	0/9			0.600	0.600	NA
STRONTIUM-90	PCI/G	4/16	16	4/16	0.690-2.440	1.60	0.500	0.600	.436
TECHNETIUM-99	PCI/G	3/16	16	3/16	1.650-2.700	2.08	1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/19	19	0/19			1.000	1.000	NA
CESIUM-137	PCI/G	1/19	19	1/19	0.242-0.242	0.24	0.200	0.200	NA

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
RADIONUCLIDES DEPTH: 20 - 9999 FEET									
URANIUM-238	PCI/G	11/16	16	0/16	0.600-0.997	0.75	0.600	0.600	1.12
URANIUM, TOTAL	MG/KG	6/18	13	0/18	1.000-3.000	2.31	2.000	11.000	3.69
URANIUM-234	PCI/G	9/16	16	1/16	0.600-1.300	0.79	0.600	0.600	1.04
THORIUM-230	PCI/G	17/18	18	0/18	0.600-1.750	0.94	0.600	0.600	1.91
RADIUM-226	PCI/G	10/12	12	0/12	0.400-0.870	0.62	0.300	0.300	1.47
LEAD-210	PCI/G	2/3	3	0/3	0.560-0.560	0.56	0.500	0.500	.850
POLONIUM-210	PCI/G	3/3	3	3/3	1.230-1.740	1.57			NA
URANIUM-235/236	PCI/G	0/16	16	0/16			0.100	0.600	0.150
THORIUM-232	PCI/G	4/18	18	0/18	0.600-0.730	0.69	0.600	0.600	1.26
THORIUM, TOTAL	MG/KG	9/23	16	0/23	1.760-6.600	4.72	5.472	18.000	11.1
RADIUM-228	PCI/G	4/13	13	0/13	0.580-0.753	0.70	0.500	0.800	1.31
THORIUM-228	PCI/G	7/18	18	1/18	0.645-1.470	1.01	0.600	0.600	1.38
NEPTUNIUM-237	PCI/G	0/13	13	0/13			0.600	0.600	NA
PLUTONIUM-239/240	PCI/G	0/8	8	0/8			0.600	0.600	NA
PLUTONIUM-238	PCI/G	0/8	8	0/8			0.600	0.600	NA
STRONTIUM-90	PCI/G	4/13	13	4/13	0.600-0.808	0.68	0.500	0.500	.436
TECHNETIUM-99	PCI/G	0/14	14	0/14			1.000	1.000	NA
RUTHENIUM-106	PCI/G	0/9	9	0/9			1.000	1.100	NA
CESIUM-137	PCI/G	0/9	9	0/9			0.200	0.200	NA
ACTINIUM-227	PCI/G	0/2	2	0/2			0.300	0.600	.105
PROTACTINIUM-231	PCI/G	0/3	3	0/3			1.100	1.700	ND
RADIUM-224	PCI/G	3/3	3	0/3	0.670-0.830	0.78			1.01

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
ALUMINUM	MG/KG	158/158	156	44/158	483.000-20700.000	9511.16			11900
ANTIMONY	MG/KG	22/86	84	22/86	2.800-59.800	23.58	0.280	19.300	NA
ARSENIC	MG/KG	141/149	129	24/149	0.770-25.300	6.46	49.900	61.000	8.20
BARIUM	MG/KG	176/176	156	66/176	11.400-561.000	98.12			95.7
BERYLLIUM	MG/KG	101/156	154	73/156	0.280-2.700	0.90	0.220	3.200	0.6
CADMIUM	MG/KG	52/171	151	50/171	0.490-8.000	4.07	0.500	5.000	0.870
CALCIUM	MG/KG	158/158	156	147/158	778.000-347000.000	69657.01			4340
CHROMIUM	MG/KG	175/176	156	98/176	1.600-80.100	18.13	12.200	12.200	15.5
COBALT	MG/KG	147/158	156	12/158	2.500-25.800	9.61	2.200	9.900	14.2
COPPER	MG/KG	142/158	156	116/158	5.000-695.000	31.26	7.200	31.900	14.1
CYANIDE	MG/KG	42/136	136	27/136	0.130-22.800	1.08	0.110	3.400	0.270
IRON	MG/KG	158/158	156	51/158	24.500-40600.000	18765.47			21700
LEAD	MG/KG	173/177	147	69/177	3.500-2180.000	94.47	0.470	10.700	26.4
MAGNESIUM	MG/KG	158/158	156	145/158	227.000-50300.000	17739.60			2780
MANGANESE	MG/KG	154/155	153	10/155	9.900-2010.000	626.12	0.420	0.420	1350
MERCURY	MG/KG	33/174	155	13/174	0.060-6.300	0.67	0.010	0.340	0.3
MOLYBDENUM	MG/KG	53/154	152	53/154	0.600-13.100	5.10	0.920	19.900	NA
NICKEL	MG/KG	133/158	156	73/158	5.300-72.200	23.27	10.100	26.600	20.9
POTASSIUM	MG/KG	153/158	156	64/158	260.000-2850.000	1195.54	896.000	2490.000	1230
SELENIUM	MG/KG	19/141	121	5/141	0.230-2.300	0.62	0.200	61.000	0.72
SILICON	MG/KG	104/111	110	29/111	31.800-6660.000	1496.55	51.400	356.000	1800
SILVER	MG/KG	59/169	149	59/169	0.970-17.200	5.99	0.200	9.900	NA

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FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 0 - .5 FEET									
SODIUM	MG/KG	123/158	156	118/158	27.700-2180.000	268.96	30.000	141.000	51.1
THALLIUM	MG/KG	34/157	155	0/157	0.110-0.510	0.29	0.110	1.600	0.58
VANADIUM	MG/KG	158/158	156	23/158	5.600-38.400	23.54			30.4
ZINC	MG/KG	151/154	152	81/154	17.800-2150.000	121.61	11.400	67.300	59.6

001541

06/10/94

5699

AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
ALUMINUM	MG/KG	80/80	79	20/80	1070.000-18000.000	8734.00			11900
ANTIMONY	MG/KG	0/18	17	0/18			0.330	14.300	NA
ARSENIC	MG/KG	68/69	68	15/69	1.800-81.900	7.82	2.200	2.200	8.20
BARIUM	MG/KG	80/80	79	24/80	12.600-587.000	107.90			95.7
BERYLLIUM	MG/KG	66/80	79	57/80	0.420-1.900	0.93	0.320	2.200	0.6
CADMIUM	MG/KG	56/80	79	55/80	0.510-12.400	3.91	0.800	4.600	0.870
CALCIUM	MG/KG	80/80	79	77/80	3220.000-260000.000	78850.50			4340
CHROMIUM	MG/KG	72/74	73	50/74	5.500-53.000	18.24	2.100	9.200	15.5
COBALT	MG/KG	76/80	79	9/80	3.700-32.900	11.11	2.200	10.900	14.2
COPPER	MG/KG	77/80	79	63/80	5.500-69.400	20.81	6.100	19.500	14.1
CYANIDE	MG/KG	13/66	66	5/66	0.120-20.600	1.88	0.090	0.600	0.270
IRON	MG/KG	80/80	79	25/80	2300.000-41800.000	18517.25			21700
LEAD	MG/KG	80/80	79	18/80	2.900-440.000	27.07			26.4
MAGNESIUM	MG/KG	80/80	79	76/80	1620.000-65300.000	19212.25			2780
MANGANESE	MG/KG	78/78	77	1/78	94.600-1360.000	514.97			1350
MERCURY	MG/KG	16/77	76	5/77	0.080-1.100	0.30	0.050	0.180	0.3
MOLYBDENUM	MG/KG	39/76	75	39/76	2.200-7.600	4.34	1.300	18.400	NA
NICKEL	MG/KG	71/74	73	46/74	9.100-70.500	25.65	4.500	18.400	20.9
POTASSIUM	MG/KG	79/80	79	18/80	255.000-2460.000	967.01	21.200	21.200	1230
SELENIUM	MG/KG	12/73	72	4/73	0.460-7.700	1.41	0.210	2.200	0.72
SILICON	MG/KG	26/27	27	4/27	98.900-3300.000	934.30	84.400	84.400	1800
SILVER	MG/KG	53/78	77	53/78	1.800-36.400	5.76	0.230	9.200	NA

06/10/94

001512

AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: .5 - 1 FEET									
SODIUM	MG/KG	79/80	79	77/80	30.800-2360.000	349.62	54.400	54.400	51.1
THALLIUM	MG/KG	10/78	77	1/78	0.240-0.600	0.42	0.200	0.570	0.58
VANADIUM	MG/KG	79/80	79	8/80	4.300-41.300	23.03	9.200	9.200	30.4
ZINC	MG/KG	76/76	75	23/76	6.200-324.000	67.20			59.6

001613

06/10/94

5699

AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
ALUMINUM	MG/KG	52/52	52	22/52	1430.000-25700.000	11097.31			11900
ANTIMONY	MG/KG	0/32	32	0/32			0.920	14.800	NA
ARSENIC	MG/KG	45/46	46	8/46	1.500-15.600	5.95	0.420	0.420	8.20
BARIUM	MG/KG	52/52	52	19/52	18.700-324.000	92.03			95.7
BERYLLIUM	MG/KG	24/50	50	19/50	0.450-3.500	1.27	0.420	3.800	0.6
CADMIUM	MG/KG	16/47	47	16/47	1.100-6.300	2.96	0.950	1.200	0.870
CALCIUM	MG/KG	52/52	52	47/52	1540.000-170000.000	65032.89			4340
CHROMIUM	MG/KG	52/52	52	27/52	3.600-29.600	15.84			15.5
COBALT	MG/KG	46/52	52	5/52	5.300-19.500	10.10	3.600	9.100	14.2
COPPER	MG/KG	42/52	52	33/52	9.800-51.400	19.14	1.900	25.200	14.1
CYANIDE	MG/KG	2/47	47	2/47	0.580-1.228	0.90	0.110	0.620	0.270
IRON	MG/KG	52/52	52	25/52	4750.000-36600.000	20762.31			21700
LEAD	MG/KG	50/50	49	4/50	3.400-54.800	15.41			26.4
MAGNESIUM	MG/KG	52/52	52	50/52	1150.000-52600.000	16979.81			2780
MANGANESE	MG/KG	52/52	52	1/52	262.000-2700.000	583.35			1350
MERCURY	MG/KG	5/52	52	3/52	0.060-1.000	0.42	0.050	0.150	0.3
MOLYBDENUM	MG/KG	5/45	45	5/45	3.800-6.400	4.60	1.800	12.300	NA
NICKEL	MG/KG	39/52	52	21/52	4.900-49.300	22.03	3.800	44.300	20.9
POTASSIUM	MG/KG	52/52	52	22/52	222.000-2840.000	1149.54			1230
SELENIUM	MG/KG	4/41	41	2/41	0.540-1.900	0.99	0.210	2.300	0.72
SILICON	MG/KG	30/37	37	2/37	44.400-2880.000	570.37	62.000	228.000	1800
SILVER	MG/KG	10/47	47	10/47	1.500-7.800	4.44	0.210	2.200	NA

06/10/94

001634

AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1 - 1.5 FEET									
SODIUM	MG/KG	37/52	52	37/52	70.100-739.000	190.72	32.200	152.000	51.1
THALLIUM	MG/KG	9/52	52	0/52	0.230-0.490	0.34	0.170	0.490	0.58
VANADIUM	MG/KG	51/52	52	13/52	10.900-47.300	25.37	28.400	28.400	30.4
ZINC	MG/KG	49/52	52	23/52	18.500-502.000	72.12	41.700	66.700	59.6

001615

06/10/94

5699

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 1.5 - 3 FEET									
ALUMINUM	MG/KG	110/110	107	7/110	1100.000-27000.000	9997.36			16100
ANTIMONY	MG/KG	1/45	42	1/45	7.300-7.300	7.30	0.920	15.500	NA
ARSENIC	MG/KG	96/97	94	9/97	0.030-17.200	6.09	0.510	0.510	9.57
BARIUM	MG/KG	110/110	107	26/110	9.900-307.000	85.96			119
BERYLLIUM	MG/KG	66/109	106	55/109	0.410-2.800	1.00	0.350	2.100	0.620
CADMIUM	MG/KG	58/105	102	58/105	1.000-7.700	3.53	0.820	2.900	0.910
CALCIUM	MG/KG	110/110	107	3/110	3480.000-211000.000	66626.82			150000
CHROMIUM	MG/KG	103/104	101	17/104	5.000-87.700	16.84	5.800	5.800	20.7
COBALT	MG/KG	103/110	107	17/110	2.600-30.200	11.42	3.600	10.600	15.7
COPPER	MG/KG	101/109	106	32/109	5.000-43.900	18.94	1.900	28.600	20.0
CYANIDE	MG/KG	12/101	98	10/101	0.110-9.800	1.85	0.010	0.650	.17
IRON	MG/KG	110/110	107	10/110	4000.000-40000.000	20858.82			30700
LEAD	MG/KG	108/108	104	31/108	2.400-71.000	13.25			15.6
MAGNESIUM	MG/KG	110/110	107	5/110	1390.000-70100.000	18383.27			42600
MANGANESE	MG/KG	110/110	107	10/110	154.000-4200.000	670.36			1300
MERCURY	MG/KG	7/110	107	1/110	0.040-2.300	0.40	0.050	0.210	0.29
MOLYBDENUM	MG/KG	37/101	100	33/101	2.300-10.000	4.68	1.800	13.000	2.7
NICKEL	MG/KG	91/104	101	15/104	7.600-67.100	25.97	3.800	35.000	34.3
POTASSIUM	MG/KG	109/110	107	2/110	214.000-3020.000	997.37	21.200	21.200	1980
SELENIUM	MG/KG	7/95	92	7/95	0.540-3.300	1.07	0.230	1.800	NA
SILICON	MG/KG	47/50	50	3/50	33.700-2920.000	563.74	75.800	181.000	1590
SILVER	MG/KG	52/104	101	52/104	1.000-30.500	5.77	0.210	5.800	NA

06/10/94

001516

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 1.5 - 3 FEET									
SODIUM	MG/KG	96/110	107	9/110	55.700-1560.000	191.19	34.100	194.000	285
THALLIUM	MG/KG	6/110	107	2/110	0.250-0.720	0.42	0.180	0.980	0.49
VANADIUM	MG/KG	110/110	107	6/110	6.700-51.300	23.87			37.8
ZINC	MG/KG	110/110	107	12/110	16.700-189.000	56.20			82.0

001617

06/10/94

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 3 - 5 FEET									
ALUMINUM	MG/KG	78/78	78	5/78	1520.000-142000.000	10557.05			16100
ANTIMONY	MG/KG	6/25	25	6/25	14.900-22.000	18.47	0.880	4.000	NA
ARSENIC	MG/KG	72/72	72	8/72	2.000-34.300	5.63			9.57
BARIUM	MG/KG	78/78	78	5/78	12.300-175.000	67.95			119
BERYLLIUM	MG/KG	66/76	76	54/76	0.290-3.200	0.95	0.430	2.100	0.620
CADMIUM	MG/KG	56/78	78	56/78	0.920-8.000	3.92	0.670	1.400	0.910
CALCIUM	MG/KG	78/78	78	2/78	4090.000-168000.000	70816.15			150000
CHROMIUM	MG/KG	72/72	72	8/72	4.700-28.700	15.69			20.7
COBALT	MG/KG	73/78	78	4/78	4.800-28.100	10.32	6.000	10.700	15.7
COPPER	MG/KG	69/78	78	28/78	7.600-33.800	19.34	14.600	33.800	20.0
CYANIDE	MG/KG	15/75	75	10/75	0.120-1.400	0.42	0.100	1.500	.17
IRON	MG/KG	78/78	78	8/78	4680.000-66600.000	19857.69			30700
LEAD	MG/KG	79/79	77	18/79	2.900-40.000	11.71			15.6
MAGNESIUM	MG/KG	78/78	78	2/78	2330.000-61800.000	19697.69			42600
MANGANESE	MG/KG	78/78	78	2/78	107.000-1610.000	500.14			1300
MERCURY	MG/KG	4/78	78	0/78	0.050-0.090	0.07	0.060	0.220	0.29
MOLYBDENUM	MG/KG	37/73	73	33/73	2.400-9.600	4.10	1.300	10.600	2.7
NICKEL	MG/KG	66/72	72	6/72	12.800-63.000	25.58	19.400	25.300	34.3
POTASSIUM	MG/KG	78/78	78	5/78	204.000-2930.000	1083.68			1980
SELENIUM	MG/KG	7/73	73	7/73	0.420-1.600	0.78	0.230	2.700	NA
SILICON	MG/KG	16/18	18	0/18	47.100-767.000	412.27	92.300	104.000	1590
SILVER	MG/KG	53/72	72	53/72	0.410-23.700	5.27	0.230	2.900	NA

001648

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 3 - 5 FEET									
SODIUM	MG/KG	65/78	78	5/78	45.000-697.000	162.01	45.700	247.000	285
THALLIUM	MG/KG	6/78	78	2/78	0.260-0.570	0.40	0.045	0.560	0.49
VANADIUM	MG/KG	76/78	78	3/78	4.700-47.000	22.08	16.700	28.700	37.8
ZINC	MG/KG	78/78	78	8/78	17.300-780.000	63.20			82.0

001619

06/10/94

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 5 - 10 FEET									
ALUMINUM	MG/KG	110/110	110	12/110	2060.000-87000.000	10888.73			16100
ANTIMONY	MG/KG	1/52	52	1/52	21.800-21.800	21.80	0.880	9.600	NA
ARSENIC	MG/KG	98/100	100	18/100	1.200-74.200	7.54	2.540	14.700	9.57
BARIUM	MG/KG	110/110	110	16/110	14.900-872.000	84.49			119
BERYLLIUM	MG/KG	71/108	108	58/108	0.360-5.200	1.13	0.380	3.300	0.620
CADMIUM	MG/KG	43/103	103	43/103	1.200-6.900	3.58	0.750	9.600	0.910
CALCIUM	MG/KG	110/110	110	10/110	2180.000-314000.000	81265.46			150000
CHROMIUM	MG/KG	109/109	109	17/109	6.200-115.000	16.89			20.7
COBALT	MG/KG	96/110	110	12/110	2.900-105.000	11.67	3.300	11.200	15.7
COPPER	MG/KG	102/110	110	37/110	6.900-171.000	21.41	13.500	37.300	20.0
CYANIDE	MG/KG	3/98	98	2/98	0.140-0.810	0.47	0.080	5.100	.17
IRON	MG/KG	110/110	110	17/110	6850.000-193000.000	23539.18			30700
LEAD	MG/KG	106/106	106	30/106	1.400-139.000	14.72			15.6
MAGNESIUM	MG/KG	110/110	110	3/110	2090.000-93200.000	20878.27			42600
MANGANESE	MG/KG	110/110	110	11/110	227.000-12200.000	788.97			1300
MERCURY	MG/KG	2/110	110	0/110	0.050-0.240	0.15	0.010	1.000	0.29
MOLYBDENUM	MG/KG	31/104	102	30/104	1.600-9.000	4.58	1.700	23.100	2.7
NICKEL	MG/KG	101/109	109	21/109	7.300-186.000	27.55	9.300	39.000	34.3
POTASSIUM	MG/KG	110/110	110	15/110	316.000-10900.000	1459.06			1980
SELENIUM	MG/KG	10/92	92	10/92	0.320-1.800	0.79	0.230	3.900	NA
SILICON	MG/KG	59/63	63	1/63	17.600-5950.000	527.57	83.600	192.000	1590
SILVER	MG/KG	40/104	104	40/104	0.930-25.000	5.61	0.230	9.600	NA

06/10/94

003520

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 5 - 10 FEET									
SODIUM	MG/KG	94/110	110	9/110	42.200-1600.000	185.87	43.800	209.000	285
THALLIUM	MG/KG	10/109	109	0/109	0.230-0.440	0.34	0.230	3.900	0.49
VANADIUM	MG/KG	108/110	110	13/110	10.400-190.000	26.64	25.500	28.500	37.8
ZINC	MG/KG	105/109	109	19/109	20.100-486.000	66.78	37.700	82.900	82.0

001621

06/10/94

5699

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
ALUMINUM	MG/KG	19/19	19	0/19	2450.000-13200.000	7374.74			16100
ANTIMONY	MG/KG	1/11	11	1/11	1.200-1.200	1.20	0.890	7.200	NA
ARSENIC	MG/KG	18/19	19	0/19	1.900-8.700	3.83	2.900	2.900	9.57
BARIUM	MG/KG	19/19	19	2/19	15.400-3610.000	293.65			119
BERYLLIUM	MG/KG	13/19	19	8/19	0.400-2.200	1.00	0.360	2.300	0.620
CADMIUM	MG/KG	7/17	17	7/17	1.600-7.900	4.94	0.820	1.300	0.910
CALCIUM	MG/KG	19/19	19	3/19	74800.000-221000.000	122121.05			150000
CHROMIUM	MG/KG	18/19	19	3/19	7.800-32.900	15.27	6.900	6.900	20.7
COBALT	MG/KG	16/19	19	1/19	3.200-18.100	8.98	6.400	11.700	15.7
COPPER	MG/KG	16/18	18	3/18	9.400-25.200	17.25	16.900	18.500	20.0
CYANIDE	MG/KG	4/17	17	3/17	0.140-1.500	0.80	0.110	0.330	.17
IRON	MG/KG	19/19	19	0/19	8750.000-26300.000	16934.21			30700
LEAD	MG/KG	20/20	19	2/20	0.470-22.000	9.13			15.6
MAGNESIUM	MG/KG	19/19	19	1/19	15500.000-48300.000	29815.79			42600
MANGANESE	MG/KG	19/19	19	0/19	288.000-659.000	425.58			1300
MERCURY	MG/KG	1/19	19	0/19	0.220-0.220	0.22	0.060	0.110	0.29
MOLYBDENUM	MG/KG	2/18	18	2/18	3.300-4.800	4.05	1.700	11.700	2.7
NICKEL	MG/KG	17/19	19	2/19	6.700-38.200	20.55	26.000	37.500	34.3
POTASSIUM	MG/KG	19/19	19	3/19	273.000-3120.000	1371.32			1980
SELENIUM	MG/KG	1/17	17	1/17	2.800-2.800	2.80	0.230	2.200	NA
SILICON	MG/KG	10/12	12	0/12	106.000-1030.000	513.50	66.800	158.000	1590
SILVER	MG/KG	8/19	19	8/19	1.800-31.100	7.88	0.240	2.100	NA

06/10/94

001622

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 10 - 15 FEET									
SODIUM	MG/KG	17/19	19	2/19	111.000-1700.000	271.88	108.000	218.000	285
THALLIUM	MG/KG	4/19	19	0/19	0.240-0.310	0.28	0.200	0.500	0.49
VANADIUM	MG/KG	19/19	19	0/19	13.100-27.500	20.36			37.8
ZINC	MG/KG	18/18	18	3/18	22.200-391.000	71.36			82.0

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
ALUMINUM	MG/KG	5/5	5	0/5	3690.000-7510.000	6204.00			16100
ANTIMONY	MG/KG	0/2	2	0/2			2.400	2.600	NA
ARSENIC	MG/KG	5/5	5	0/5	2.300-5.100	3.84			9.57
BARIUM	MG/KG	5/5	5	0/5	16.400-62.100	40.10			119
BERYLLIUM	MG/KG	5/5	5	3/5	0.330-3.500	1.56			0.620
CADMIUM	MG/KG	1/5	5	1/5	5.100-5.100	5.10	1.000	1.200	0.910
CALCIUM	MG/KG	5/5	5	1/5	99700.000-186000.000	126140.00			150000
CHROMIUM	MG/KG	5/5	5	0/5	7.000-12.800	10.12			20.7
COBALT	MG/KG	5/5	5	0/5	4.900-9.600	6.06			15.7
COPPER	MG/KG	3/5	5	0/5	12.600-18.700	15.27	9.800	12.700	20.0
CYANIDE	MG/KG	0/5	5	0/5			0.000	0.290	.17
IRON	MG/KG	5/5	5	0/5	11200.000-18100.000	13980.00			30700
LEAD	MG/KG	6/6	5	1/6	4.300-28.200	11.42			15.6
MAGNESIUM	MG/KG	5/5	5	0/5	17200.000-34100.000	25560.00			42600
MANGANESE	MG/KG	5/5	5	0/5	319.000-563.000	423.80			1300
MERCURY	MG/KG	0/5	5	0/5			0.050	0.110	0.29
MOLYBDENUM	MG/KG	1/5	5	0/5	2.600-2.600	2.60	3.700	4.100	2.7
NICKEL	MG/KG	3/5	5	0/5	14.500-23.600	17.73	10.700	15.900	34.3
POTASSIUM	MG/KG	5/5	5	0/5	1160.000-1690.000	1418.00			1980
SELENIUM	MG/KG	0/5	5	0/5			0.220	0.460	NA
SILICON	MG/KG	2/4	4	0/4	450.000-715.000	582.50	54.700	90.600	1590
SILVER	MG/KG	3/5	5	3/5	2.400-8.900	4.57	0.440	0.470	NA

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 15 - 20 FEET									
SODIUM	MG/KG	3/5	5	0/5	159.000-218.000	189.00	177.000	280.000	285
THALLIUM	MG/KG	1/5	5	0/5	0.270-0.270	0.27	0.220	0.460	0.49
VANADIUM	MG/KG	5/5	5	0/5	17.200-25.400	19.66			37.8
ZINC	MG/KG	5/5	5	2/5	29.500-442.000	182.78			82.0

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS									
DEPTH: 20 - 9999 FEET									
ALUMINUM	MG/KG	3/3	3	0/3	5840.000-9390.000	7276.67			16100
ANTIMONY	MG/KG	2/2	2	2/2	21.200-22.100	21.65			NA
ARSENIC	MG/KG	3/3	3	0/3	2.700-3.900	3.27			9.57
BARIUM	MG/KG	3/3	3	0/3	34.600-56.000	46.07			1.19
BERYLLIUM	MG/KG	3/3	3	2/3	0.580-0.770	0.69			0.620
CADMIUM	MG/KG	2/3	3	2/3	3.700-4.300	4.00	1.100	1.100	0.910
CALCIUM	MG/KG	3/3	3	0/3	98500.000-144000.000	125833.33			150000
CHROMIUM	MG/KG	3/3	3	2/3	12.800-33.300	25.03			20.7
COBALT	MG/KG	3/3	3	0/3	6.100-10.100	8.60			15.7
COPPER	MG/KG	3/3	3	1/3	17.400-24.500	20.60			20.0
CYANIDE	MG/KG	1/3	3	1/3	0.282-0.282	0.28	0.110	0.120	.17
IRON	MG/KG	3/3	3	0/3	13800.000-19500.000	16233.33			30700
LEAD	MG/KG	3/3	3	0/3	6.500-8.900	7.93			15.6
MAGNESIUM	MG/KG	3/3	3	0/3	23700.000-27600.000	25366.67			42600
MANGANESE	MG/KG	3/3	3	0/3	415.000-463.000	439.67			1300
MERCURY	MG/KG	0/3	3	0/3			0.110	0.120	0.29
MOLYBDENUM	MG/KG	2/3	3	2/3	10.600-11.100	10.85	4.300	4.300	2.7
NICKEL	MG/KG	3/3	3	0/3	17.200-23.200	20.57			34.3
POTASSIUM	MG/KG	3/3	3	1/3	1090.000-2070.000	1520.00			1980
SELENIUM	MG/KG	0/3	3	0/3			0.450	0.450	NA
SILICON	MG/KG	1/1	1	0/1	654.000-654.000	654.00			1590
SILVER	MG/KG	3/3	3	3/3	4.400-17.600	13.03			NA

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001626

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
INORGANICS DEPTH: 20 - 9999 FEET									
SODIUM	MG/KG	3/3	3	0/3	182.000-243.000	212.00			285
THALLIUM	MG/KG	0/3	3	0/3			0.450	0.450	0.49
VANADIUM	MG/KG	3/3	3	0/3	22.500-23.600	23.13			37.8
ZINC	MG/KG	3/3	3	0/3	34.200-47.400	41.63			82.0

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	22/152	123	22/152	1.000-9400.000	896.41	5.000	5900.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/123	123	0/123			5.000	5900.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/152	123	0/152			5.000	5900.000	
1,1,2-TRICHLOROTRIFLUOROETHANE		0/10	0	0/10			420.000	830.000	
1,1-DICHLOROETHANE	UG/KG	4/123	123	4/123	4.000-16.000	9.50	5.000	5900.000	
1,1-DICHLOROETHENE	UG/KG	3/142	123	3/142	2.000-6.000	3.33	5.000	5900.000	
1,2-DICHLOROETHANE	UG/KG	0/142	123	0/142			5.000	5900.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	2/123	123	2/123	1.000-19.000	10.00	5.000	5900.000	
1,2-DICHLOROPROPANE	UG/KG	0/123	123	0/123			5.000	5900.000	
2-BUTANONE	UG/KG	9/117	88	9/117	1.000-110.000	19.33	10.000	5900.000	
2-HEXANONE	UG/KG	1/89	89	1/89	47.000-47.000	47.00	5.000	5900.000	
4-METHYL-2-PENTANONE	UG/KG	5/119	90	5/119	1.000-160.000	39.00	10.000	5900.000	
ACETONE	UG/KG	18/150	121	18/150	6.000-450.000	39.39	10.000	2300.000	
BENZENE	UG/KG	1/152	123	1/152	2.000-2.000	2.00	5.000	5900.000	
BROMODICHLOROMETHANE	UG/KG	0/123	123	0/123			5.000	5900.000	
BROMOFORM	UG/KG	0/123	123	0/123			5.000	5900.000	
BROMOMETHANE	UG/KG	1/123	123	1/123	720.000-720.000	720.00	10.000	1500.000	
CARBON DISULFIDE	UG/KG	4/152	123	4/152	3.000-11.000	5.50	5.000	5900.000	
CARBON TETRACHLORIDE	UG/KG	2/152	123	2/152	1100.000-1200.000	1150.00	5.000	5900.000	
CHLOROBENZENE	UG/KG	1/152	123	1/152	1.000-1.000	1.00	5.000	5900.000	
CHLOROETHANE	UG/KG	0/142	123	0/142			10.000	5900.000	
CHLOROFORM	UG/KG	2/123	123	2/123	9.000-14.000	11.50	5.000	5900.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 0 - .5 FEET									
CHLOROMETHANE	UG/KG	0/140	121	0/140			10.000	5900.000	
CIS-1,3-DICHLOROPROPENE	UG/KG	0/123	123	0/123			5.000	5900.000	
DIBROMOCHLOROMETHANE	UG/KG	0/123	123	0/123			5.000	5900.000	
ETHYLBENZENE	UG/KG	5/152	123	5/152	0.800-660.000	190.96	5.000	730.000	
METHYLENE CHLORIDE	UG/KG	31/152	123	31/152	1.000-5500.000	366.00	5.000	5900.000	
STYRENE	UG/KG	2/122	122	2/122	1.000-28.000	14.50	5.000	5900.000	
TETRACHLOROETHENE	UG/KG	19/150	121	19/150	1.000-48000.000	2798.58	5.000	2300.000	
TOLUENE	UG/KG	44/152	123	44/152	0.700-200.000	23.17	5.000	5900.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/122	122	0/122			5.000	5900.000	
TRICHLOROETHENE	UG/KG	23/152	123	23/152	1.000-89000.000	3925.22	5.000	5900.000	
TRICHLOROFLUOROMETHANE	UG/KG	0/29	0	0/29			11.000	830.000	
VINYL ACETATE	UG/KG	0/90	90	0/90			10.000	1500.000	
VINYL CHLORIDE	UG/KG	0/142	123	0/142			10.000	5900.000	
XYLENES, TOTAL	UG/KG	7/142	123	7/142	2.000-2000.000	430.14	5.000	730.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	15/64	64	15/64	1.000-350.000	44.73	5.000	13.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	2/64	64	2/64	2.000-190.000	96.00	5.000	350.000	
1,1,2-TRICHLOROETHANE	UG/KG	1/64	64	1/64	14.000-14.000	14.00	5.000	350.000	
1,1-DICHLOROETHANE	UG/KG	3/65	65	3/65	1.000-22.000	11.67	5.000	350.000	
1,1-DICHLOROETHENE	UG/KG	2/65	65	2/65	4.000-39.000	21.50	5.000	350.000	
1,2-DICHLOROETHANE	UG/KG	1/65	65	1/65	2.000-2.000	2.00	5.000	350.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	5/65	65	5/65	2.000-340.000	91.80	5.000	350.000	
1,2-DICHLOROPROPANE	UG/KG	0/64	64	0/64			5.000	350.000	
2-BUTANONE	UG/KG	2/50	50	2/50	1.000-3.000	2.00	6.000	720.000	
2-HEXANONE	UG/KG	1/63	63	1/63	2.000-2.000	2.00	10.000	720.000	
4-METHYL-2-PENTANONE	UG/KG	8/63	63	8/63	2.000-24.000	8.88	3.000	720.000	
ACETONE	UG/KG	5/64	64	5/64	5.000-63.000	19.20	6.000	720.000	
BENZENE	UG/KG	2/64	64	2/64	2.000-5.000	3.50	5.000	350.000	
BROMODICHLOROMETHANE	UG/KG	0/64	64	0/64			5.000	350.000	
BROMOFORM	UG/KG	0/64	64	0/64			5.000	350.000	
BROMOMETHANE	UG/KG	0/65	65	0/65			10.000	720.000	
CARBON DISULFIDE	UG/KG	12/65	65	12/65	2.000-790.000	71.83	5.000	350.000	
CARBON TETRACHLORIDE	UG/KG	0/64	64	0/64			5.000	350.000	
CHLOROBENZENE	UG/KG	2/64	64	2/64	1.000-5.000	3.00	5.000	350.000	
CHLOROETHANE	UG/KG	0/65	65	0/65			10.000	720.000	
CHLOROFORM	UG/KG	5/65	65	5/65	1.000-280.000	58.40	5.000	350.000	
CHLOROMETHANE	UG/KG	0/65	65	0/65			10.000	720.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: .5 - 1 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/64	64	0/64			5.000	350.000	
DIBROMOCHLOROMETHANE	UG/KG	0/64	64	0/64			5.000	350.000	
ETHYLBENZENE	UG/KG	3/64	64	3/64	2.000-140.000	48.00	5.000	350.000	
METHYLENE CHLORIDE	UG/KG	1/65	65	1/65	6.000-6.000	6.00	6.000	1200.000	
STYRENE	UG/KG	0/64	64	0/64			5.000	350.000	
TETRACHLOROETHENE	UG/KG	10/63	63	10/63	4.000-15000.000	1770.10	5.000	13.000	
TOLUENE	UG/KG	13/64	64	13/64	1.000-160.000	14.54	5.000	350.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/59	59	0/59			5.000	350.000	
TRICHLOROETHENE	UG/KG	15/64	64	15/64	2.000-56000.000	4105.73	5.000	13.000	
VINYL ACETATE	UG/KG	0/61	61	0/61			10.000	720.000	
VINYL CHLORIDE	UG/KG	0/65	65	0/65			10.000	720.000	
XYLENES, TOTAL	UG/KG	2/64	64	2/64	6.000-120.000	63.00	5.000	350.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/49	49	1/49	1.000-1.000	1.00	5.000	29.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/49	49	0/49			5.000	29.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/49	49	0/49			5.000	29.000	
1,1-DICHLOROETHANE	UG/KG	0/49	49	0/49			5.000	29.000	
1,1-DICHLOROETHENE	UG/KG	0/49	49	0/49			5.000	29.000	
1,2-DICHLOROETHANE	UG/KG	0/49	49	0/49			5.000	29.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	2/49	49	2/49	3.000-20.000	11.50	5.000	29.000	
1,2-DICHLOROPROPANE	UG/KG	0/49	49	0/49			5.000	29.000	
2-BUTANONE	UG/KG	3/15	15	3/15	2.000-20.000	11.33	11.000	29.000	
2-HEXANONE	UG/KG	0/15	15	0/15			11.000	57.000	
4-METHYL-2-PENTANONE	UG/KG	1/16	16	1/16	76.000-76.000	76.00	10.000	12.000	
ACETONE	UG/KG	7/49	49	7/49	7.000-220.000	103.29	10.000	120.000	
BENZENE	UG/KG	0/50	49	0/50			5.000	29.000	
BROMODICHLOROMETHANE	UG/KG	0/49	49	0/49			5.000	29.000	
BROMOFORM	UG/KG	0/49	49	0/49			5.000	29.000	
BROMOMETHANE	UG/KG	0/49	49	0/49			10.000	57.000	
CARBON DISULFIDE	UG/KG	1/49	49	1/49	2.000-2.000	2.00	5.000	29.000	
CARBON TETRACHLORIDE	UG/KG	0/49	49	0/49			5.000	29.000	
CHLOROBENZENE	UG/KG	0/49	49	0/49			5.000	29.000	
CHLOROETHANE	UG/KG	0/49	49	0/49			10.000	57.000	
CHLOROFORM	UG/KG	1/49	49	1/49	4.000-4.000	4.00	5.000	29.000	
CHLOROMETHANE	UG/KG	0/48	48	0/48			10.000	57.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1 - 1.5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/49	49	0/49			5.000	29.000	
DIBROMOCHLOROMETHANE	UG/KG	0/49	49	0/49			5.000	29.000	
ETHYLBENZENE	UG/KG	0/50	49	0/50			5.000	29.000	
METHYLENE CHLORIDE	UG/KG	15/49	49	15/49	2.000-100.000	20.60	9.000	38.000	
STYRENE	UG/KG	0/49	49	0/49			5.000	29.000	
TETRACHLOROETHENE	UG/KG	4/48	48	4/48	1.000-20.000	10.50	5.000	13.000	
TOLUENE	UG/KG	2/50	49	2/50	1.000-2.000	1.50	5.000	29.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/49	49	0/49			5.000	29.000	
TRICHLOROETHENE	UG/KG	4/49	49	4/49	2.000-64.000	30.50	5.000	13.000	
VINYL ACETATE	UG/KG	0/41	41	0/41			10.000	57.000	
VINYL CHLORIDE	UG/KG	0/49	49	0/49			10.000	57.000	
XYLENES, TOTAL	UG/KG	1/50	49	1/50	2.000-2.000	2.00	5.000	29.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	16/136	135	16/136	2.000-460.000	65.50	5.000	1300.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/136	135	1/136	5.000-5.000	5.00	5.000	1300.000	
1,1,2-TRICHLOROETHANE	UG/KG	1/136	135	1/136	2.000-2.000	2.00	5.000	1300.000	
1,1-DICHLOROETHANE	UG/KG	8/136	135	8/136	2.000-37.000	11.63	5.000	1300.000	
1,1-DICHLOROETHENE	UG/KG	4/136	135	4/136	2.000-17.000	6.75	5.000	1300.000	
1,2-DICHLOROETHANE	UG/KG	0/136	135	0/136			5.000	1300.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	12/136	135	12/136	1.000-440.000	48.17	5.000	1300.000	
1,2-DICHLOROPROPANE	UG/KG	0/136	135	0/136			5.000	1300.000	
2-BUTANONE	UG/KG	8/94	93	8/94	2.000-86.000	21.38	6.000	2600.000	
2-HEXANONE	UG/KG	1/111	110	1/111	2.000-2.000	2.00	3.000	2600.000	
4-METHYL-2-PENTANONE	UG/KG	13/112	111	13/112	1.000-60.000	20.46	6.000	2600.000	
ACETONE	UG/KG	15/136	135	15/136	6.000-220.000	60.20	10.000	2600.000	
BENZENE	UG/KG	1/137	135	1/137	66.700-66.700	66.70	5.000	1300.000	
BROMODICHLOROMETHANE	UG/KG	1/136	135	1/136	7.000-7.000	7.00	5.000	1300.000	
BROMOFORM	UG/KG	0/136	135	0/136			5.000	1300.000	
BROMOMETHANE	UG/KG	0/136	135	0/136			10.000	2600.000	
CARBON DISULFIDE	UG/KG	19/136	135	19/136	1.000-390.000	24.79	5.000	1300.000	
CARBON TETRACHLORIDE	UG/KG	2/136	135	2/136	5.000-12.000	8.50	5.000	1300.000	
CHLOROBENZENE	UG/KG	2/136	135	2/136	1.000-2.000	1.50	5.000	1300.000	
CHLOROETHANE	UG/KG	0/136	135	0/136			10.000	2600.000	
CHLOROFORM	UG/KG	4/136	135	4/136	2.000-160.000	64.25	5.000	1300.000	
CHLOROMETHANE	UG/KG	0/134	133	0/134			10.000	2600.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 1.5 - 3 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/136	135	0/136			5.000	1300.000	
DIBROMOCHLOROMETHANE	UG/KG	0/136	135	0/136			5.000	1300.000	
ETHYLBENZENE	UG/KG	2/137	135	2/137	2.000-747.000	374.50	5.000	1300.000	
METHYLENE CHLORIDE	UG/KG	15/137	136	15/137	2.000-60.000	18.00	5.000	4600.000	
STYRENE	UG/KG	2/136	135	2/136	1.000-2.000	1.50	5.000	1300.000	
TETRACHLOROETHENE	UG/KG	18/135	134	18/135	1.000-1600.000	183.11	5.000	14.000	
TOLUENE	UG/KG	14/137	135	14/137	1.000-794.000	58.57	1.000	1300.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/131	130	0/131			5.000	1300.000	
TRICHLOROETHENE	UG/KG	18/136	135	18/136	1.000-120000.000	7308.11	5.000	14.000	
VINYL ACETATE	UG/KG	0/128	127	0/128			10.000	2600.000	
VINYL CHLORIDE	UG/KG	1/136	135	1/136	2.000-2.000	2.00	10.000	2600.000	
XYLENES, TOTAL	UG/KG	2/137	135	2/137	3.000-6180.000	3091.50	5.000	1300.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	16/73	73	16/73	1.000-6600.000	521.63	5.000	1300.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	3/74	74	3/74	15.000-190.000	83.00	5.000	1300000.00	
1,1,2-TRICHLOROETHANE	UG/KG	3/74	74	3/74	1.000-4.000	2.33	5.000	1300000.00	
1,1-DICHLOROETHANE	UG/KG	14/74	74	14/74	1.000-460.000	107.29	5.000	14.000	
1,1-DICHLOROETHENE	UG/KG	16/74	74	16/74	1.000-460.000	41.13	5.000	1300.000	
1,2-DICHLOROETHANE	UG/KG	3/73	73	3/73	2.000-10.000	6.00	5.000	1300.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	21/74	74	21/74	2.000-4300.000	248.48	5.000	1300.000	
1,2-DICHLOROPROPANE	UG/KG	0/74	74	0/74			5.000	1300.000	
2-BUTANONE	UG/KG	6/51	51	6/51	2.000-20.000	10.83	4.000	2600.000	
2-HEXANONE	UG/KG	4/67	67	4/67	1.000-2600.000	651.00	1.000	14.000	
4-METHYL-2-PENTANONE	UG/KG	19/67	67	19/67	1.000-2600.000	150.90	1.000	14.000	
ACETONE	UG/KG	12/73	73	12/73	9.000-230.000	54.33	11.000	2700.000	
BENZENE	UG/KG	2/76	74	2/76	1.000-1300.000	650.50	5.000	14.000	
BROMODICHLOROMETHANE	UG/KG	0/74	74	0/74			5.000	1300.000	
BROMOFORM	UG/KG	0/74	74	0/74			5.000	1300.000	
BROMOMETHANE	UG/KG	0/74	74	0/74			10.000	2600.000	
CARBON DISULFIDE	UG/KG	22/74	74	22/74	1.000-49.000	9.73	5.000	1300.000	
CARBON TETRACHLORIDE	UG/KG	0/74	74	0/74			5.000	1300.000	
CHLOROBENZENE	UG/KG	0/74	74	0/74			5.000	1300.000	
CHLOROETHANE	UG/KG	3/74	74	3/74	2.000-210.000	72.00	10.000	2600.000	
CHLOROFORM	UG/KG	5/74	74	5/74	2.000-14.000	5.00	5.000	1300.000	
CHLOROMETHANE	UG/KG	0/74	74	0/74			10.000	13000.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 3 - 5 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/74	74	0/74			5.000	1300.000	
DIBROMOCHLOROMETHANE	UG/KG	1/74	74	1/74	1300.000-1300.000	1300.00	5.000	14.000	
ETHYLBENZENE	UG/KG	2/76	74	2/76	2.000-10.000	6.00	5.000	1300.000	
METHYLENE CHLORIDE	UG/KG	3/74	74	3/74	8.000-37.000	25.33	5.000	4200.000	
STYRENE	UG/KG	0/74	74	0/74			5.000	1300.000	
TETRACHLOROETHENE	UG/KG	11/74	74	11/74	1.000-6300.000	968.00	5.000	110.000	
TOLUENE	UG/KG	16/76	74	16/76	1.000-116.000	15.25	5.000	1300.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	1/69	69	1/69	1300.000-1300.000	1300.00	5.000	14.000	
TRICHLOROETHENE	UG/KG	16/73	73	16/73	2.000-150000.000	10066.94	5.000	14.000	
VINYL ACETATE	UG/KG	0/73	73	0/73			10.000	2600.000	
VINYL CHLORIDE	UG/KG	2/74	74	2/74	3.000-110.000	56.50	10.000	2600.000	
XYLENES, TOTAL	UG/KG	5/76	74	5/76	3.000-820.000	174.80	3.000	1300.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	10/86	86	10/86	2.000-1500.000	200.90	5.000	64.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	4/86	86	4/86	2.000-47.000	18.50	5.000	64.000	
1,1,2-TRICHLOROETHANE	UG/KG	2/86	86	2/86	1.000-2.000	1.50	5.000	64.000	
1,1-DICHLOROETHANE	UG/KG	11/86	86	11/86	1.000-46.000	13.82	5.000	64.000	
1,1-DICHLOROETHENE	UG/KG	3/86	86	3/86	2.000-54.000	33.33	5.000	64.000	
1,2-DICHLOROETHANE	UG/KG	2/86	86	2/86	2.000-2.000	2.00	5.000	64.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	10/86	86	10/86	2.000-130.000	28.70	5.000	26.000	
1,2-DICHLOROPROPANE	UG/KG	0/86	86	0/86			5.000	64.000	
2-BUTANONE	UG/KG	9/39	39	9/39	2.000-200.000	57.11	10.000	23.000	
2-HEXANONE	UG/KG	1/52	52	1/52	1.000-1.000	1.00	6.000	52.000	
4-METHYL-2-PENTANONE	UG/KG	9/52	52	9/52	1.000-33.000	7.44	10.000	52.000	
ACETONE	UG/KG	16/86	86	16/86	6.000-190.000	54.81	10.000	73.000	
BENZENE	UG/KG	0/86	86	0/86			5.000	64.000	
BROMODICHLOROMETHANE	UG/KG	1/86	86	1/86	13.000-13.000	13.00	5.000	64.000	
BROMOFORM	UG/KG	0/86	86	0/86			5.000	64.000	
BROMOMETHANE	UG/KG	0/86	86	0/86			10.000	64.000	
CARBON DISULFIDE	UG/KG	29/86	86	29/86	2.000-140.000	23.76	5.000	64.000	
CARBON TETRACHLORIDE	UG/KG	0/86	86	0/86			5.000	64.000	
CHLOROBENZENE	UG/KG	0/86	86	0/86			5.000	64.000	
CHLOROETHANE	UG/KG	0/86	86	0/86			10.000	64.000	
CHLOROFORM	UG/KG	3/86	86	3/86	2.000-130.000	45.00	5.000	64.000	
CHLOROMETHANE	UG/KG	0/84	84	0/84			10.000	64.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 5 - 10 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/86	86	0/86			5.000	64.000	
DIBROMOCHLOROMETHANE	UG/KG	0/86	86	0/86			5.000	64.000	
ETHYLBENZENE	UG/KG	1/86	86	1/86	3.000-3.000	3.00	5.000	64.000	
METHYLENE CHLORIDE	UG/KG	16/85	85	16/85	1.000-86.000	20.06	6.000	160.000	
STYRENE	UG/KG	0/86	86	0/86			5.000	64.000	
TETRACHLOROETHENE	UG/KG	11/86	86	11/86	2.000-21000.000	2472.64	5.000	26.000	
TOLUENE	UG/KG	6/86	86	6/86	1.000-21.000	4.67	5.000	64.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/84	84	0/84			5.000	64.000	
TRICHLOROETHENE	UG/KG	9/86	86	9/86	2.000-330.000	70.44	5.000	26.000	
VINYL ACETATE	UG/KG	0/78	78	0/78			10.000	52.000	
VINYL CHLORIDE	UG/KG	2/86	86	2/86	7.000-9.000	8.00	10.000	64.000	
XYLENES, TOTAL	UG/KG	2/86	86	2/86	5.000-17.000	11.00	5.000	64.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	3/30	29	3/30	9.000-15.000	12.33	5.000	1600.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	1/30	29	1/30	19.000-19.000	19.00	5.000	1600.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/30	29	0/30			5.000	1600.000	
1,1-DICHLOROETHANE	UG/KG	6/30	29	6/30	2.000-20.000	6.83	5.000	1600.000	
1,1-DICHLOROETHENE	UG/KG	2/30	29	2/30	1.000-10.000	5.50	5.000	1600.000	
1,2-DICHLOROETHANE	UG/KG	1/30	29	1/30	2.000-2.000	2.00	5.000	1600.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	4/30	29	4/30	10.000-1600.000	418.75	5.000	13.000	
1,2-DICHLOROPROPANE	UG/KG	0/30	29	0/30			5.000	1600.000	
2-BUTANONE	UG/KG	0/21	20	0/21			11.000	3400.000	
2-HEXANONE	UG/KG	1/25	24	1/25	2.000-2.000	2.00	11.000	3400.000	
4-METHYL-2-PENTANONE	UG/KG	4/25	24	4/25	2.000-10.000	5.75	11.000	3400.000	
ACETONE	UG/KG	9/30	29	9/30	6.000-140.000	41.22	11.000	3400.000	
BENZENE	UG/KG	0/31	29	0/31			5.000	1600.000	
BROMODICHLOROMETHANE	UG/KG	0/30	29	0/30			5.000	1600.000	
BROMOFORM	UG/KG	0/30	29	0/30			5.000	1600.000	
BROMOMETHANE	UG/KG	0/30	29	0/30			11.000	3400.000	
CARBON DISULFIDE	UG/KG	11/30	29	11/30	1.000-44.000	6.64	6.000	1600.000	
CARBON TETRACHLORIDE	UG/KG	0/30	29	0/30			5.000	1600.000	
CHLOROBENZENE	UG/KG	0/30	29	0/30			5.000	1600.000	
CHLOROETHANE	UG/KG	0/30	29	0/30			11.000	3400.000	
CHLOROFORM	UG/KG	0/30	29	0/30			5.000	1600.000	
CHLOROMETHANE	UG/KG	0/29	28	0/29			11.000	3400.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 10 - 15 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/30	29	0/30			5.000	1600.000	
DIBROMOCHLOROMETHANE	UG/KG	0/30	29	0/30			5.000	1600.000	
ETHYLBENZENE	UG/KG	0/31	29	0/31			5.000	1600.000	
METHYLENE CHLORIDE	UG/KG	6/30	29	6/30	21.000-100.000	37.17	6.000	6700.000	
STYRENE	UG/KG	0/30	29	0/30			5.000	1600.000	
TETRACHLOROETHENE	UG/KG	5/30	29	5/30	1.000-17000.000	4170.00	5.000	13.000	
TOLUENE	UG/KG	3/31	29	3/31	1.000-5.480	3.16	5.000	1600.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/30	29	0/30			5.000	1600.000	
TRICHLOROETHENE	UG/KG	6/30	29	6/30	2.000-2000.000	346.17	5.000	13.000	
VINYL ACETATE	UG/KG	0/28	27	0/28			11.000	3400.000	
VINYL CHLORIDE	UG/KG	1/30	29	1/30	2.000-2.000	2.00	11.000	3400.000	
XYLENES, TOTAL	UG/KG	2/31	29	2/31	11.800-31000.000	15505.90	5.000	13.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	1/13	13	1/13	4.000-4.000	4.00	6.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/13	13	0/13			6.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/13	13	0/13			6.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/13	13	0/13			6.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/13	13	0/13			6.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/13	13	0/13			6.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/13	13	0/13			6.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/13	13	0/13			6.000	12.000	
2-BUTANONE	UG/KG	2/10	10	2/10	11.000-17.000	14.00	6.000	12.000	
2-HEXANONE	UG/KG	0/11	11	0/11			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	5/11	11	5/11	3.000-340.000	73.60	11.000	11.000	
ACETONE	UG/KG	10/13	13	10/13	18.000-50.000	28.00	11.000	150.000	
BENZENE	UG/KG	0/14	13	0/14			5.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/13	13	0/13			6.000	12.000	
BROMOFORM	UG/KG	0/13	13	0/13			6.000	12.000	
BROMOMETHANE	UG/KG	0/13	13	0/13			11.000	12.000	
CARBON DISULFIDE	UG/KG	9/13	13	9/13	1.000-69.000	13.22	6.000	12.000	
CARBON TETRACHLORIDE	UG/KG	0/13	13	0/13			6.000	12.000	
CHLOROBENZENE	UG/KG	0/13	13	0/13			6.000	12.000	
CHLOROETHANE	UG/KG	0/13	13	0/13			11.000	12.000	
CHLOROFORM	UG/KG	1/13	13	1/13	5.000-5.000	5.00	6.000	12.000	
CHLOROMETHANE	UG/KG	0/13	13	0/13			11.000	12.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 15 - 20 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/13	13	0/13			6.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/13	13	0/13			6.000	12.000	
ETHYLBENZENE	UG/KG	1/14	13	1/14	1.000-1.000	1.00	5.000	12.000	
METHYLENE CHLORIDE	UG/KG	2/13	13	2/13	12.000-16.000	14.00	11.000	20.000	
STYRENE	UG/KG	0/13	13	0/13			6.000	12.000	
TETRACHLOROETHENE	UG/KG	1/13	13	1/13	4.000-4.000	4.00	6.000	12.000	
TOLUENE	UG/KG	2/14	13	2/14	1.000-38.900	19.95	6.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/13	13	0/13			6.000	12.000	
TRICHLOROETHENE	UG/KG	1/13	13	1/13	2.000-2.000	2.00	6.000	12.000	
VINYL ACETATE	UG/KG	0/13	13	0/13			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/13	13	0/13			11.000	12.000	
XYLENES, TOTAL	UG/KG	1/14	13	1/14	320.000-320.000	320.00	6.000	12.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 20 - 9999 FEET									
1,1,1-TRICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	12.000	
1,1,2,2-TETRACHLOROETHANE	UG/KG	0/3	3	0/3			6.000	12.000	
1,1,2-TRICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	12.000	
1,1-DICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	12.000	
1,1-DICHLOROETHENE	UG/KG	0/3	3	0/3			6.000	12.000	
1,2-DICHLOROETHANE	UG/KG	0/3	3	0/3			6.000	12.000	
1,2-DICHLOROETHENE (TOTAL)	UG/KG	0/3	3	0/3			6.000	12.000	
1,2-DICHLOROPROPANE	UG/KG	0/3	3	0/3			6.000	12.000	
2-BUTANONE	UG/KG	1/2	2	1/2	2.000-2.000	2.00	12.000	12.000	
2-HEXANONE	UG/KG	0/3	3	0/3			11.000	12.000	
4-METHYL-2-PENTANONE	UG/KG	1/3	3	1/3	24.000-24.000	24.00	11.000	12.000	
ACETONE	UG/KG	1/2	2	1/2	28.000-28.000	28.00	11.000	11.000	
BENZENE	UG/KG	0/3	3	0/3			6.000	12.000	
BROMODICHLOROMETHANE	UG/KG	0/3	3	0/3			6.000	12.000	
BROMOFORM	UG/KG	0/3	3	0/3			6.000	12.000	
BROMOMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CARBON DISULFIDE	UG/KG	2/3	3	2/3	2.000-11.000	6.50	6.000	6.000	
CARBON TETRACHLORIDE	UG/KG	0/3	3	0/3			6.000	12.000	
CHLOROBENZENE	UG/KG	0/3	3	0/3			6.000	12.000	
CHLOROETHANE	UG/KG	0/3	3	0/3			11.000	12.000	
CHLOROFORM	UG/KG	0/3	3	0/3			6.000	12.000	
CHLOROMETHANE	UG/KG	0/3	3	0/3			11.000	12.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
VOLATILES DEPTH: 20 - 9999 FEET									
CIS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			6.000	12.000	
DIBROMOCHLOROMETHANE	UG/KG	0/3	3	0/3			6.000	12.000	
ETHYLBENZENE	UG/KG	0/3	3	0/3			6.000	12.000	
METHYLENE CHLORIDE	UG/KG	1/3	3	1/3	9.000-9.000	9.00	4.000	13.000	
STYRENE	UG/KG	0/3	3	0/3			6.000	12.000	
TETRACHLOROETHENE	UG/KG	0/3	3	0/3			6.000	12.000	
TOLUENE	UG/KG	0/3	3	0/3			6.000	12.000	
TRANS-1,3-DICHLOROPROPENE	UG/KG	0/3	3	0/3			6.000	12.000	
TRICHLOROETHENE	UG/KG	0/3	3	0/3			6.000	12.000	
VINYL ACETATE	UG/KG	0/3	3	0/3			11.000	12.000	
VINYL CHLORIDE	UG/KG	0/3	3	0/3			11.000	12.000	
XYLENES, TOTAL	UG/KG	1/3	3	1/3	9.000-9.000	9.00	6.000	12.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/115	115	0/115			340.000	5600.000	
1,2-DICHLOROBENZENE	UG/KG	0/115	115	0/115			340.000	5600.000	
1,3-DICHLOROBENZENE	UG/KG	0/115	115	0/115			340.000	5600.000	
1,4-DICHLOROBENZENE	UG/KG	0/123	115	0/123			340.000	5600.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/127	109	0/127			850.000	27000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/127	109	0/127			340.000	5600.000	
2,4-DICHLOROPHENOL	UG/KG	1/109	109	1/109	100.000-100.000	100.00	340.000	5600.000	
2,4-DIMETHYLPHENOL	UG/KG	3/120	110	3/120	60.000-100.000	76.67	340.000	5600.000	
2,4-DINITROPHENOL	UG/KG	0/109	109	0/109			850.000	27000.000	
2,4-DINITROTOLUENE	UG/KG	1/133	115	1/133	53.000-53.000	53.00	340.000	5600.000	
2,6-DINITROTOLUENE	UG/KG	0/115	115	0/115			340.000	5600.000	
2-CHLORONAPHTHALENE	UG/KG	0/115	115	0/115			340.000	5600.000	
2-CHLOROPHENOL	UG/KG	1/109	109	1/109	48.000-48.000	48.00	340.000	5600.000	
2-METHYLNAPHTHALENE	UG/KG	18/115	115	18/115	25.000-1700.000	383.78	340.000	5600.000	
2-METHYLPHENOL	UG/KG	1/117	109	1/117	45.000-45.000	45.00	340.000	5600.000	
2-NITROANILINE	UG/KG	0/115	114	0/115			850.000	27000.000	
2-NITROPHENOL	UG/KG	0/109	109	0/109			340.000	5600.000	
3,3'-DICHLOROBENZIDINE	UG/KG	1/114	114	1/114	190.000-190.000	190.00	340.000	11000.000	
3-NITROANILINE	NONE	0/107	107	0/107			850.000	27000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/109	109	0/109			850.000	27000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/115	115	0/115			340.000	5600.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	1/109	109	1/109	46.000-46.000	46.00	340.000	5600.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/115	115	0/115			340.000	5600.000	
4-METHYLPHENOL	UG/KG	3/118	110	3/118	50.000-120.000	77.00	340.000	5600.000	
4-NITROANILINE	UG/KG	1/109	109	1/109	330.000-330.000	330.00	850.000	27000.000	
4-NITROPHENOL	UG/KG	0/108	108	0/108			850.000	27000.000	
ACENAPHTHENE	UG/KG	17/115	115	17/115	52.000-4800.000	848.35	340.000	5600.000	
ACENAPHTHYLENE	UG/KG	11/115	115	11/115	41.000-3100.000	699.91	340.000	5600.000	
ANTHRACENE	UG/KG	28/117	117	28/117	4.000-11000.000	1535.21	340.000	4200.000	
BENZO(A)ANTHRACENE	UG/KG	45/117	117	45/117	30.000-61000.000	2905.11	340.000	4200.000	
BENZO(A)PYRENE	UG/KG	42/117	117	42/117	39.000-69000.000	3552.74	340.000	4200.000	
BENZO(B)FLUORANTHENE	UG/KG	44/117	117	44/117	37.000-39000.000	2482.96	340.000	4200.000	
BENZO(G,H,I)PERYLENE	UG/KG	32/117	117	32/117	47.000-48000.000	3143.69	340.000	5600.000	
BENZO(K)FLUORANTHENE	UG/KG	45/117	117	45/117	33.000-69000.000	2721.29	340.000	5600.000	
BENZOIC ACID	UG/KG	5/77	77	5/77	55.000-250.000	113.00	850.000	27000.000	
BENZYL ALCOHOL	UG/KG	2/80	80	2/80	69.000-290.000	179.50	340.000	5600.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/115	115	0/115			340.000	5600.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/115	115	0/115			340.000	5600.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	1/115	115	1/115	48.000-48.000	48.00	340.000	5600.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	33/117	117	33/117	36.000-11000.000	1264.61	340.000	4200.000	
BUTYL BENZYL PHTHALATE	UG/KG	2/117	117	2/117	42.000-74.000	58.00	340.000	5600.000	
CARBAZOLE	UG/KG	8/74	74	8/74	46.000-570.000	162.00	340.000	560.000	
CHRYSENE	UG/KG	47/116	116	47/116	40.000-18000.000	1799.62	340.000	4200.000	
DI-N-BUTYL PHTHALATE	UG/KG	25/117	117	25/117	17.000-6100.000	585.28	340.000	5600.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	4/117	117	4/117	180.000-630.000	337.50	340.000	5600.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	22/117	117	22/117	46.000-23000.000	2083.36	340.000	5600.000	
DIBENZOFURAN	UG/KG	16/115	115	16/115	55.000-3400.000	585.38	340.000	5600.000	
DIETHYL PHTHALATE	UG/KG	0/115	115	0/115			340.000	5600.000	
DIMETHYL PHTHALATE	UG/KG	0/115	115	0/115			340.000	5600.000	
FLUORANTHENE	UG/KG	62/116	116	62/116	23.000-33000.000	2207.94	340.000	4200.000	
FLUORENE	UG/KG	18/115	115	18/115	17.000-5700.000	848.39	340.000	5600.000	
HEXACHLOROBENZENE	UG/KG	0/133	115	0/133			340.000	5600.000	
HEXACHLOROBUTADIENE	UG/KG	0/132	114	0/132			340.000	5600.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/114	114	0/114			340.000	5600.000	
HEXACHLOROETHANE	UG/KG	0/133	115	0/133			340.000	5600.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	33/117	117	33/117	42.000-49000.000	3142.73	340.000	5600.000	
ISOPHORONE	UG/KG	1/115	115	1/115	830.000-830.000	830.00	340.000	5600.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	1/115	115	1/115	39.000-39.000	39.00	340.000	5600.000	
N-NITROSODIPHENYLAMINE	UG/KG	3/115	115	3/115	120.000-1300.000	700.00	340.000	5600.000	
NAPHTHALENE	UG/KG	17/115	115	17/115	39.000-1800.000	383.47	340.000	5600.000	
NITROBENZENE	UG/KG	0/133	115	0/133			340.000	5600.000	
O,O,O-TRIETHYLPHOSPHOROTHIOATE	UG/KG	0/6	6	0/6			0.030	0.040	
P-CHLOROANILINE	UG/KG	0/109	109	0/109			340.000	5600.000	
PENTACHLOROPHENOL	UG/KG	0/127	109	0/127			850.000	27000.000	
PHENANTHRENE	UG/KG	52/116	116	52/116	22.000-22000.000	1644.54	340.000	4200.000	
PHENOL	UG/KG	4/110	110	4/110	44.000-730.000	298.50	340.000	5600.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 0 - .5 FEET									
PYRENE	UG/KG	62/116	116	62/116	23.000-22000.000	1860.65	74.000	4200.000	
PYRIDINE	UG/KG	0/18	0	0/18			350.000	10000.000	
TRIBUTYL PHOSPHATE	UG/KG	5/16	16	5/16	66.000-1200.000	339.60	370.000	1500.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/67	67	0/67			350.000	3700.000	
1,2-DICHLOROBENZENE	UG/KG	0/67	67	0/67			350.000	3700.000	
1,3-DICHLOROBENZENE	UG/KG	0/67	67	0/67			350.000	3700.000	
1,4-DICHLOROBENZENE	UG/KG	0/67	67	0/67			350.000	3700.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/67	67	0/67			900.000	18000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/67	67	0/67			350.000	3700.000	
2,4-DICHLOROPHENOL	UG/KG	0/67	67	0/67			350.000	3700.000	
2,4-DIMETHYLPHENOL	UG/KG	0/67	67	0/67			350.000	3700.000	
2,4-DINITROPHENOL	UG/KG	0/66	66	0/66			900.000	18000.000	
2,4-DINITROTOLUENE	UG/KG	0/67	67	0/67			350.000	3700.000	
2,6-DINITROTOLUENE	UG/KG	0/67	67	0/67			350.000	3700.000	
2-BENZYL-4-CHLOROPHENOL	UG/KG	0/1	1	0/1			400.000	400.000	
2-CHLORONAPHTHALENE	UG/KG	0/67	67	0/67			350.000	3700.000	
2-CHLOROPHENOL	UG/KG	0/67	67	0/67			350.000	3700.000	
2-METHYLNAPHTHALENE	UG/KG	9/67	67	9/67	56.000-680.000	367.33	350.000	3700.000	
2-METHYLPHENOL	UG/KG	0/67	67	0/67			350.000	3700.000	
2-NITROANILINE	UG/KG	0/67	67	0/67			900.000	18000.000	
2-NITROPHENOL	UG/KG	0/67	67	0/67			350.000	3700.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/66	66	0/66			360.000	7400.000	
3-NITROANILINE	NONE	0/63	63	0/63			900.000	18000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/66	66	0/66			900.000	18000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/67	67	0/67			350.000	3700.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
4-CHLORO-3-METHYLPHENOL	UG/KG	0/67	67	0/67			350.000	3700.000	
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/67	67	0/67			350.000	3700.000	
4-METHYLPHENOL	UG/KG	0/67	67	0/67			350.000	3700.000	
4-NITROANILINE	UG/KG	0/62	62	0/62			900.000	18000.000	
4-NITROPHENOL	UG/KG	0/66	66	0/66			900.000	18000.000	
ACENAPHTHENE	UG/KG	3/67	67	3/67	71.000-570.000	250.33	350.000	3700.000	
ACENAPHTHYLENE	UG/KG	0/67	67	0/67			350.000	3700.000	
ANTHRACENE	UG/KG	5/67	67	5/67	60.000-880.000	280.60	350.000	3700.000	
BENZO(A)ANTHRACENE	UG/KG	11/67	67	11/67	48.000-2900.000	471.73	350.000	3700.000	
BENZO(A)PYRENE	UG/KG	8/67	67	8/67	66.000-3700.000	665.13	350.000	3700.000	
BENZO(B)FLUORANTHENE	UG/KG	7/67	67	7/67	45.000-4200.000	862.14	350.000	3700.000	
BENZO(G,H,I)PERYLENE	UG/KG	5/67	67	5/67	67.000-1500.000	519.40	350.000	3700.000	
BENZO(K)FLUORANTHENE	UG/KG	6/67	67	6/67	110.000-3100.000	833.33	350.000	3700.000	
BENZOIC ACID	UG/KG	2/62	62	2/62	84.000-170.000	127.00	780.000	18000.000	
BENZYL ALCOHOL	UG/KG	0/63	63	0/63			350.000	3700.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/67	67	0/67			350.000	3700.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/67	67	0/67			350.000	3700.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/54	54	0/54			350.000	3700.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	20/62	62	20/62	41.000-7100.000	839.85	350.000	1700.000	
BUTYL BENZYL PHTHALATE	UG/KG	3/66	66	3/66	60.000-750.000	295.00	350.000	3700.000	
CARBAZOLE	UG/KG	0/8	8	0/8			360.000	400.000	
CHRYSENE	UG/KG	9/67	67	9/67	70.000-3000.000	628.89	350.000	3700.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
DI-N-BUTYL PHTHALATE	UG/KG	7/67	67	7/67	35.000-110.000	53.29	350.000	3700.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/66	66	0/66			350.000	3700.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	2/67	67	2/67	140.000-690.000	415.00	350.000	3700.000	
DIBENZOFURAN	UG/KG	7/67	67	7/67	50.000-210.000	120.86	350.000	3700.000	
DIETHYL PHTHALATE	UG/KG	1/67	67	1/67	52.000-52.000	52.00	350.000	3700.000	
DIMETHYL PHTHALATE	UG/KG	0/67	67	0/67			350.000	3700.000	
FLUORANTHENE	UG/KG	17/67	67	17/67	39.000-5900.000	638.47	350.000	3700.000	
FLUORENE	UG/KG	3/67	67	3/67	44.000-380.000	194.67	350.000	3700.000	
HEXACHLOROBENZENE	UG/KG	0/67	67	0/67			350.000	3700.000	
HEXACHLOROBUTADIENE	UG/KG	1/65	65	1/65	430.000-430.000	430.00	350.000	3700.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/67	67	0/67			350.000	3700.000	
HEXACHLOROETHANE	UG/KG	0/67	67	0/67			350.000	3700.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	5/67	67	5/67	49.000-1500.000	473.80	350.000	3700.000	
ISOPHORONE	UG/KG	0/67	67	0/67			350.000	3700.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/63	63	0/63			350.000	3700.000	
N-NITROSODIPHENYLAMINE	UG/KG	1/67	67	1/67	43.000-43.000	43.00	350.000	3700.000	
NAPHTHALENE	UG/KG	8/67	67	8/67	66.000-390.000	206.50	350.000	3700.000	
NITROBENZENE	UG/KG	0/63	63	0/63			350.000	3700.000	
P-CHLOROANILINE	UG/KG	0/65	65	0/65			350.000	3700.000	
PENTACHLOROPHENOL	UG/KG	0/67	67	0/67			900.000	18000.000	
PHENANTHRENE	UG/KG	17/67	67	17/67	37.000-3700.000	513.29	350.000	3700.000	
PHENOL	UG/KG	3/67	67	3/67	56.000-200.000	108.33	350.000	3700.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: .5 - 1 FEET									
PYRENE	UG/KG	18/67	67	18/67	41.000-4300.000	496.06	350.000	3700.000	
TRIBUTYL PHOSPHATE	UG/KG	3/17	17	3/17	46.000-170.000	95.67	350.000	750.000	

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AREA: PRODUCTION AREA
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/48	48	0/48			10.000	420.000	
1,2-DICHLOROBENZENE	UG/KG	0/48	48	0/48			10.000	420.000	
1,3-DICHLOROBENZENE	UG/KG	0/48	48	0/48			10.000	420.000	
1,4-DICHLOROBENZENE	UG/KG	0/48	48	0/48			10.000	420.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/46	46	0/46			25.000	2000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	
2,4-DICHLOROPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	
2,4-DIMETHYLPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	
2,4-DINITROPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	
2,4-DINITROTOLUENE	UG/KG	0/48	48	0/48			25.000	2000.000	
2,6-DINITROTOLUENE	UG/KG	1/48	48	1/48	11.000-11.000	11.00	340.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/48	48	0/48			10.000	420.000	
2-CHLOROPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	
2-METHYLNAPHTHALENE	UG/KG	0/48	48	0/48			10.000	420.000	
2-METHYLPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	
2-NITROANILINE	UG/KG	0/48	48	0/48			25.000	2000.000	
2-NITROPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/48	48	0/48			10.000	820.000	
3-NITROANILINE	NONE	0/46	46	0/46			25.000	2000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/46	46	0/46			25.000	2000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/48	48	0/48			10.000	420.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/48	48	0/48			10.000	420.000	
4-METHYLPHENOL	UG/KG	0/46	46	0/46			10.000	420.000	
4-NITROANILINE	UG/KG	0/47	47	0/47			25.000	2000.000	
4-NITROPHENOL	UG/KG	0/46	46	0/46			25.000	2000.000	
ACENAPHTHENE	UG/KG	1/48	48	1/48	81.000-81.000	81.00	10.000	420.000	
ACENAPHTHYLENE	UG/KG	0/48	48	0/48			10.000	420.000	
ANTHRACENE	UG/KG	2/49	49	2/49	1.000-86.000	43.50	340.000	420.000	
BENZO(A)ANTHRACENE	UG/KG	8/49	49	8/49	1.000-240.000	80.38	340.000	420.000	
BENZO(A)PYRENE	UG/KG	6/49	49	6/49	1.000-180.000	76.33	340.000	420.000	
BENZO(B)FLUORANTHENE	UG/KG	9/49	49	9/49	34.000-290.000	87.67	10.000	420.000	
BENZO(G,H,I)PERYLENE	UG/KG	4/49	49	4/49	47.000-110.000	71.75	10.000	420.000	
BENZO(K)FLUORANTHENE	UG/KG	9/49	49	9/49	19.000-130.000	71.00	10.000	420.000	
BENZOIC ACID	UG/KG	0/41	41	0/41			25.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/42	42	0/42			10.000	420.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/48	48	0/48			10.000	420.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/48	48	0/48			10.000	420.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/48	48	0/48			10.000	420.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	16/49	49	16/49	41.000-980.000	202.50	10.000	420.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/49	49	0/49			10.000	420.000	
CARBAZOLE	UG/KG	1/41	41	1/41	58.000-58.000	58.00	10.000	420.000	
CHRYSENE	UG/KG	8/49	49	8/49	1.000-270.000	102.88	340.000	420.000	
DI-N-BUTYL PHTHALATE	UG/KG	4/49	49	4/49	1.000-120.000	54.75	340.000	2300.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1 - 1.5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/49	49	0/49			10.000	420.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/49	49	0/49			10.000	420.000	
DIBENZOFURAN	UG/KG	0/48	48	0/48			10.000	420.000	
DIETHYL PHTHALATE	UG/KG	1/48	48	1/48	1.000-1.000	1.00	340.000	420.000	
DIMETHYL PHTHALATE	UG/KG	0/48	48	0/48			10.000	420.000	
FLUORANTHENE	UG/KG	8/49	49	8/49	1.000-630.000	208.75	340.000	420.000	
FLUORENE	UG/KG	1/48	48	1/48	50.000-50.000	50.00	10.000	420.000	
HEXACHLOROBENZENE	UG/KG	0/48	48	0/48			10.000	420.000	
HEXACHLOROBUTADIENE	UG/KG	0/48	48	0/48			10.000	420.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/47	47	0/47			10.000	420.000	
HEXACHLOROETHANE	UG/KG	0/48	48	0/48			10.000	420.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	4/49	49	4/49	64.000-110.000	81.25	10.000	420.000	
ISOPHORONE	UG/KG	0/48	48	0/48			10.000	420.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/48	48	0/48			10.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/48	48	0/48			10.000	420.000	
NAPHTHALENE	UG/KG	1/48	48	1/48	1.000-1.000	1.00	340.000	420.000	
NITROBENZENE	UG/KG	0/48	48	0/48			10.000	420.000	
P-CHLOROANILINE	UG/KG	0/45	45	0/45			10.000	420.000	
PENTACHLOROPHENOL	UG/KG	0/46	46	0/46			25.000	2000.000	
PHENANTHRENE	UG/KG	9/49	49	9/49	1.000-420.000	120.00	340.000	420.000	
PHENOL	UG/KG	1/46	46	1/46	1.000-1.000	1.00	340.000	420.000	
PYRENE	UG/KG	8/49	49	8/49	1.000-490.000	166.13	340.000	420.000	

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AREA: PRODUCTION AREA
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	1/122	121	1/122	220.000-220.000	220.00	330.000	2100.000	
1,2-DICHLOROBENZENE	UG/KG	0/122	121	0/122			330.000	2100.000	
1,3-DICHLOROBENZENE	UG/KG	0/122	121	0/122			330.000	2100.000	
1,4-DICHLOROBENZENE	UG/KG	1/122	121	1/122	210.000-210.000	210.00	330.000	2100.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/121	120	0/121			820.000	10000.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/121	120	0/121			330.000	2100.000	
2,4-DICHLOROPHENOL	UG/KG	0/121	120	0/121			330.000	2100.000	
2,4-DIMETHYLPHENOL	UG/KG	1/121	120	1/121	100.000-100.000	100.00	330.000	2100.000	
2,4-DINITROPHENOL	UG/KG	0/121	120	0/121			820.000	10000.000	
2,4-DINITROTOLUENE	UG/KG	1/122	121	1/122	110.000-110.000	110.00	330.000	2100.000	
2,6-DINITROTOLUENE	UG/KG	0/122	121	0/122			330.000	2100.000	
2-CHLORONAPHTHALENE	UG/KG	0/122	121	0/122			330.000	2100.000	
2-CHLOROPHENOL	UG/KG	2/121	120	2/121	42.000-390.000	216.00	330.000	2100.000	
2-METHYLNAPHTHALENE	UG/KG	4/122	121	4/122	45.000-200.000	94.00	330.000	2100.000	
2-METHYLPHENOL	UG/KG	0/121	120	0/121			330.000	2100.000	
2-NITROANILINE	UG/KG	1/122	121	1/122	2400.000-2400.000	2400.00	820.000	10000.000	
2-NITROPHENOL	UG/KG	0/121	120	0/121			330.000	2100.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/121	120	0/121			340.000	4300.000	
3-NITROANILINE	NONE	0/118	117	0/118			820.000	10000.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/121	120	0/121			820.000	10000.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/122	121	0/122			330.000	2100.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	1/121	120	1/121	45.000-45.000	45.00	330.000	2100.000	

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AREA: PRODUCTION AREA
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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/122	121	0/122			330.000	2100.000	
4-METHYLPHENOL	UG/KG	1/121	120	1/121	110.000-110.000	110.00	330.000	2100.000	
4-NITROANILINE	UG/KG	0/116	116	0/116			820.000	10000.000	
4-NITROPHENOL	UG/KG	3/121	120	3/121	94.000-330.000	178.00	820.000	10000.000	
ACENAPHTHENE	UG/KG	2/122	121	2/122	77.000-250.000	163.50	330.000	2100.000	
ACENAPHTHYLENE	UG/KG	1/122	121	1/122	780.000-780.000	780.00	330.000	2100.000	
ANTHRACENE	UG/KG	4/122	121	4/122	66.000-1400.000	446.50	330.000	2100.000	
BENZO(A)ANTHRACENE	UG/KG	12/122	121	12/122	38.000-5100.000	635.17	330.000	2100.000	
BENZO(A)PYRENE	UG/KG	9/121	120	9/121	63.000-3400.000	583.67	330.000	2100.000	
BENZO(B)FLUORANTHENE	UG/KG	10/122	121	10/122	39.000-6000.000	933.90	45.000	2100.000	
BENZO(G,H,I)PERYLENE	UG/KG	7/122	121	7/122	53.000-2200.000	483.29	330.000	2100.000	
BENZO(K)FLUORANTHENE	UG/KG	4/122	121	4/122	120.000-280.000	210.00	38.000	2100.000	
BENZOIC ACID	UG/KG	2/111	110	2/111	65.000-150.000	107.50	860.000	9800.000	
BENZYL ALCOHOL	UG/KG	0/115	114	0/115			330.000	2100.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/122	121	0/122			330.000	2100.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/122	121	0/122			330.000	2100.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/109	108	0/109			330.000	2100.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	39/119	118	39/119	38.000-9100.000	773.80	330.000	2000.000	
BUTYL BENZYL PHTHALATE	UG/KG	4/122	121	4/122	46.000-360.000	189.00	330.000	2100.000	
CARBAZOLE	UG/KG	0/33	33	0/33			340.000	470.000	
CHRYSENE	UG/KG	12/122	121	12/122	47.000-5000.000	669.83	330.000	2100.000	
DI-N-BUTYL PHTHALATE	UG/KG	11/122	121	11/122	39.000-190.000	69.18	330.000	2100.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	2/122	121	2/122	50.000-58.000	54.00	330.000	2100.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	4/121	120	4/121	42.000-1100.000	331.25	330.000	2100.000	
DIBENZOFURAN	UG/KG	3/122	121	3/122	36.000-120.000	74.33	330.000	2100.000	
DIETHYL PHTHALATE	UG/KG	4/122	121	4/122	64.000-250.000	157.00	330.000	2100.000	
DIMETHYL PHTHALATE	UG/KG	0/122	121	0/122			330.000	2100.000	
FLUORANTHENE	UG/KG	18/122	121	18/122	40.000-11000.000	898.06	330.000	2100.000	
FLUORENE	UG/KG	2/122	121	2/122	77.000-370.000	223.50	330.000	2100.000	
HEXACHLOROBENZENE	UG/KG	0/122	121	0/122			330.000	2100.000	
HEXACHLOROBUTADIENE	UG/KG	1/122	121	1/122	350.000-350.000	350.00	330.000	2100.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/121	120	0/121			330.000	2100.000	
HEXACHLOROETHANE	UG/KG	0/122	121	0/122			330.000	2100.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	8/122	121	8/122	78.000-2200.000	428.50	330.000	2100.000	
ISOPHORONE	UG/KG	0/122	121	0/122			330.000	2100.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	1/120	119	1/120	190.000-190.000	190.00	330.000	2100.000	
N-NITROSODIPHENYLAMINE	UG/KG	1/122	121	1/122	72.000-72.000	72.00	330.000	2100.000	
NAPHTHALENE	UG/KG	3/122	121	3/122	52.000-120.000	75.33	330.000	2100.000	
NITROBENZENE	UG/KG	0/119	118	0/119			330.000	2100.000	
P-CHLOROANILINE	UG/KG	0/117	116	0/117			330.000	2100.000	
PENTACHLOROPHENOL	UG/KG	3/121	120	3/121	49.000-260.000	135.67	820.000	10000.000	
PHENANTHRENE	UG/KG	17/122	121	17/122	39.000-5900.000	527.29	88.000	2100.000	
PHENOL	UG/KG	4/121	120	4/121	38.000-380.000	127.50	330.000	2100.000	
PYRENE	UG/KG	22/122	121	22/122	43.000-9200.000	655.23	330.000	2100.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 1.5 - 3 FEET									
TRIBUTYL PHOSPHATE	UG/KG	0/15	15	0/15			370.000	480.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/61	61	0/61			340.000	500.000	
1,2-DICHLOROBENZENE	UG/KG	0/61	61	0/61			340.000	500.000	
1,3-DICHLOROBENZENE	UG/KG	0/61	61	0/61			340.000	500.000	
1,4-DICHLOROBENZENE	UG/KG	0/61	61	0/61			340.000	500.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/62	62	0/62			940.000	2400.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/62	62	0/62			340.000	500.000	
2,4-DICHLOROPHENOL	UG/KG	0/62	62	0/62			340.000	500.000	
2,4-DIMETHYLPHENOL	UG/KG	0/62	62	0/62			340.000	500.000	
2,4-DINITROPHENOL	UG/KG	0/62	62	0/62			940.000	2400.000	
2,4-DINITROTOLUENE	UG/KG	0/61	61	0/61			340.000	500.000	
2,6-DINITROTOLUENE	UG/KG	0/61	61	0/61			340.000	500.000	
2-CHLORONAPHTHALENE	UG/KG	0/61	61	0/61			340.000	500.000	
2-CHLOROPHENOL	UG/KG	0/62	62	0/62			340.000	500.000	
2-METHYLNAPHTHALENE	UG/KG	1/61	61	1/61	55.000-55.000	55.00	340.000	500.000	
2-METHYLPHENOL	UG/KG	0/62	62	0/62			340.000	500.000	
2-NITROANILINE	UG/KG	0/61	61	0/61			940.000	2400.000	
2-NITROPHENOL	UG/KG	0/62	62	0/62			340.000	500.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/62	62	0/62			370.000	1000.000	
3-NITROANILINE	NONE	0/61	61	0/61			940.000	2400.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/62	62	0/62			940.000	2400.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/61	61	0/61			340.000	500.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	3/62	62	3/62	43.000-88.000	61.00	340.000	500.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/61	61	0/61			340.000	500.000	
4-METHYLPHENOL	UG/KG	0/62	62	0/62			340.000	500.000	
4-NITROANILINE	UG/KG	0/59	59	0/59			940.000	2400.000	
4-NITROPHENOL	UG/KG	1/61	61	1/61	58.000-58.000	58.00	940.000	2400.000	
ACENAPHTHENE	UG/KG	0/61	61	0/61			340.000	500.000	
ACENAPHTHYLENE	UG/KG	0/61	61	0/61			340.000	500.000	
ANTHRACENE	UG/KG	0/62	62	0/62			340.000	500.000	
BENZO(A)ANTHRACENE	UG/KG	1/62	62	1/62	50.000-50.000	50.00	340.000	500.000	
BENZO(A)PYRENE	UG/KG	0/62	62	0/62			340.000	500.000	
BENZO(B)FLUORANTHENE	UG/KG	0/62	62	0/62			340.000	500.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/62	62	0/62			340.000	500.000	
BENZO(K)FLUORANTHENE	UG/KG	0/62	62	0/62			340.000	500.000	
BENZOIC ACID	UG/KG	3/62	62	3/62	46.000-200.000	99.67	940.000	2400.000	
BENZYL ALCOHOL	UG/KG	0/60	60	0/60			340.000	500.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/61	61	0/61			340.000	500.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/61	61	0/61			340.000	500.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/52	52	0/52			340.000	500.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	13/62	62	13/62	40.000-7900.000	1910.08	340.000	500.000	
BUTYL BENZYL PHTHALATE	UG/KG	1/62	62	1/62	430.000-430.000	430.00	340.000	500.000	
CARBAZOLE	UG/KG	0/8	8	0/8			370.000	450.000	
CHRYSENE	UG/KG	0/62	62	0/62			340.000	500.000	
DI-N-BUTYL PHTHALATE	UG/KG	1/62	62	1/62	37.000-37.000	37.00	340.000	500.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	1/62	62	1/62	280.000-280.000	280.00	340.000	500.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/62	62	0/62			340.000	500.000	
DIBENZOFURAN	UG/KG	0/61	61	0/61			340.000	500.000	
DIETHYL PHTHALATE	UG/KG	1/61	61	1/61	43.000-43.000	43.00	340.000	500.000	
DIMETHYL PHTHALATE	UG/KG	0/61	61	0/61			340.000	500.000	
FLUORANTHENE	UG/KG	1/62	62	1/62	88.000-88.000	88.00	340.000	500.000	
FLUORENE	UG/KG	0/60	60	0/60			340.000	500.000	
HEXACHLOROBENZENE	UG/KG	0/61	61	0/61			340.000	500.000	
HEXACHLOROBUTADIENE	UG/KG	0/61	61	0/61			340.000	500.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/61	61	0/61			340.000	500.000	
HEXACHLOROETHANE	UG/KG	0/61	61	0/61			340.000	500.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/62	62	0/62			340.000	500.000	
ISOPHORONE	UG/KG	0/61	61	0/61			340.000	500.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/59	59	0/59			340.000	500.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/61	61	0/61			340.000	500.000	
NAPHTHALENE	UG/KG	0/61	61	0/61			340.000	500.000	
NITROBENZENE	UG/KG	0/58	58	0/58			340.000	500.000	
P-CHLOROANILINE	UG/KG	0/61	61	0/61			340.000	500.000	
PENTACHLOROPHENOL	UG/KG	1/62	62	1/62	82.000-82.000	82.00	940.000	2400.000	
PHENANTHRENE	UG/KG	1/62	62	1/62	48.000-48.000	48.00	340.000	500.000	
PHENOL	UG/KG	2/62	62	2/62	48.000-56.000	52.00	340.000	500.000	
PYRENE	UG/KG	2/62	62	2/62	50.000-68.000	59.00	340.000	500.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 3 - 5 FEET									
PYRIDINE	UG/KG	0/1	1	0/1			370.000	370.000	
TOTAL METHYLPHENOL	UG/KG	0/1	1	0/1			370.000	370.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections						
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/70	70	0/70			360.000	720.000	
1,2-DICHLOROBENZENE	UG/KG	0/70	70	0/70			360.000	720.000	
1,3-DICHLOROBENZENE	UG/KG	0/70	70	0/70			360.000	720.000	
1,4-DICHLOROBENZENE	UG/KG	0/70	70	0/70			360.000	720.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/70	70	0/70			880.000	3500.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/70	70	0/70			360.000	720.000	
2,4-DICHLOROPHENOL	UG/KG	0/70	70	0/70			360.000	720.000	
2,4-DIMETHYLPHENOL	UG/KG	0/70	70	0/70			360.000	720.000	
2,4-DINITROPHENOL	UG/KG	0/69	69	0/69			880.000	3500.000	
2,4-DINITROTOLUENE	UG/KG	0/69	69	0/69			360.000	720.000	
2,6-DINITROTOLUENE	UG/KG	0/70	70	0/70			360.000	720.000	
2-BENZYL-4-CHLOROPHENOL	UG/KG	0/2	2	0/2			400.000	420.000	
2-CHLORONAPHTHALENE	UG/KG	0/70	70	0/70			360.000	720.000	
2-CHLOROPHENOL	UG/KG	0/70	70	0/70			360.000	720.000	
2-METHYLNAPHTHALENE	UG/KG	0/70	70	0/70			360.000	720.000	
2-METHYLPHENOL	UG/KG	0/70	70	0/70			360.000	720.000	
2-NITROANILINE	UG/KG	0/70	70	0/70			880.000	3500.000	
2-NITROPHENOL	UG/KG	0/70	70	0/70			360.000	720.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/70	70	0/70			360.000	1400.000	
3-NITROANILINE	NONE	0/69	69	0/69			880.000	3500.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/69	69	0/69			880.000	3500.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/69	69	0/69			360.000	720.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES									
DEPTH: 5 - 10 FEET									
4-CHLORO-3-METHYLPHENOL	UG/KG	0/70	70	0/70			360.000	720.000	
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/69	69	0/69			360.000	720.000	
4-METHYLPHENOL	UG/KG	0/70	70	0/70			360.000	720.000	
4-NITROANILINE	UG/KG	0/69	69	0/69			880.000	3500.000	
4-NITROPHENOL	UG/KG	0/69	69	0/69			880.000	3500.000	
ACENAPHTHENE	UG/KG	0/69	69	0/69			360.000	720.000	
ACENAPHTHYLENE	UG/KG	0/70	70	0/70			360.000	720.000	
ANTHRACENE	UG/KG	1/70	70	1/70	51.000-51.000	51.00	360.000	720.000	
BENZO(A)ANTHRACENE	UG/KG	2/70	70	2/70	54.000-100.000	77.00	360.000	720.000	
BENZO(A)PYRENE	UG/KG	1/70	70	1/70	100.000-100.000	100.00	360.000	720.000	
BENZO(B)FLUORANTHENE	UG/KG	1/70	70	1/70	110.000-110.000	110.00	360.000	720.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/70	70	0/70			360.000	720.000	
BENZO(K)FLUORANTHENE	UG/KG	1/70	70	1/70	98.000-98.000	98.00	360.000	720.000	
BENZOIC ACID	UG/KG	1/66	66	1/66	59.000-59.000	59.00	380.000	3500.000	
BENZYL ALCOHOL	UG/KG	0/65	65	0/65			360.000	720.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/70	70	0/70			360.000	720.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/70	70	0/70			360.000	720.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/59	59	0/59			360.000	720.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	25/70	70	25/70	3.000-3600.000	345.84	360.000	720.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/69	69	0/69			360.000	720.000	
CARBAZOLE	UG/KG	0/40	40	0/40			360.000	470.000	
CHRYSENE	UG/KG	2/70	70	2/70	63.000-140.000	101.50	360.000	720.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
DI-N-BUTYL PHTHALATE	UG/KG	3/70	70	3/70	57.000-1400.000	549.00	360.000	2300.000	
DI-N-OCTYL PHTHALATE	UG/KG	0/70	70	0/70			360.000	720.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/70	70	0/70			360.000	720.000	
DIBENZOFURAN	UG/KG	0/69	69	0/69			360.000	720.000	
DIETHYL PHTHALATE	UG/KG	1/69	69	1/69	120.000-120.000	120.00	360.000	720.000	
DIMETHYL PHTHALATE	UG/KG	0/70	70	0/70			360.000	720.000	
FLUORANTHENE	UG/KG	7/70	70	7/70	53.000-280.000	109.14	360.000	470.000	
FLUORENE	UG/KG	0/69	69	0/69			360.000	720.000	
HEXACHLOROBENZENE	UG/KG	0/69	69	0/69			360.000	720.000	
HEXACHLOROBUTADIENE	UG/KG	0/70	70	0/70			360.000	720.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/68	68	0/68			360.000	720.000	
HEXACHLOROETHANE	UG/KG	0/70	70	0/70			360.000	720.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	1/70	70	1/70	99.000-99.000	99.00	360.000	720.000	
ISOPHORONE	UG/KG	0/70	70	0/70			360.000	720.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/67	67	0/67			360.000	720.000	
N-NITROSODIMETHYLAMINE	UG/KG	1/2	2	1/2	5.000-5.000	5.00	420.000	420.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/69	69	0/69			360.000	720.000	
NAPHTHALENE	UG/KG	0/70	70	0/70			360.000	720.000	
NITROBENZENE	UG/KG	0/66	66	0/66			360.000	720.000	
P-CHLOROANILINE	UG/KG	0/70	70	0/70			360.000	720.000	
PENTACHLOROPHENOL	UG/KG	0/69	69	0/69			880.000	3500.000	
PHENANTHRENE	UG/KG	6/70	70	6/70	46.000-150.000	105.00	360.000	470.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 5 - 10 FEET									
PHENOL	UG/KG	1/70	70	1/70	710.000-710.000	710.00	360.000	720.000	
PYRENE	UG/KG	6/70	70	6/70	48.000-260.000	98.33	360.000	720.000	
TRIBUTYL PHOSPHATE	UG/KG	0/2	2	0/2			400.000	420.000	

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	880.000	
1,2-DICHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	880.000	
1,3-DICHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	880.000	
1,4-DICHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	880.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/15	15	0/15			910.000	4300.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/15	15	0/15			370.000	880.000	
2,4-DICHLOROPHENOL	UG/KG	0/15	15	0/15			370.000	880.000	
2,4-DIMETHYLPHENOL	UG/KG	0/15	15	0/15			370.000	880.000	
2,4-DINITROPHENOL	UG/KG	0/15	15	0/15			910.000	4300.000	
2,4-DINITROTOLUENE	UG/KG	0/15	15	0/15			370.000	880.000	
2,6-DINITROTOLUENE	UG/KG	0/15	15	0/15			370.000	880.000	
2-CHLORONAPHTHALENE	UG/KG	0/15	15	0/15			370.000	880.000	
2-CHLOROPHENOL	UG/KG	0/15	15	0/15			370.000	880.000	
2-METHYLNAPHTHALENE	UG/KG	0/15	15	0/15			370.000	880.000	
2-METHYLPHENOL	UG/KG	0/15	15	0/15			370.000	880.000	
2-NITROANILINE	UG/KG	0/15	15	0/15			910.000	4300.000	
2-NITROPHENOL	UG/KG	0/15	15	0/15			370.000	880.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/15	15	0/15			370.000	1800.000	
3-NITROANILINE	NONE	0/15	15	0/15			910.000	4300.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/15	15	0/15			910.000	4300.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/15	15	0/15			370.000	880.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/15	15	0/15			370.000	880.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/15	15	0/15			370.000	880.000	
4-METHYLPHENOL	UG/KG	0/15	15	0/15			370.000	880.000	
4-NITROANILINE	UG/KG	0/15	15	0/15			910.000	4300.000	
4-NITROPHENOL	UG/KG	0/15	15	0/15			910.000	4300.000	
ACENAPHTHENE	UG/KG	0/15	15	0/15			370.000	880.000	
ACENAPHTHYLENE	UG/KG	0/15	15	0/15			370.000	880.000	
ANTHRACENE	UG/KG	0/15	15	0/15			370.000	880.000	
BENZO(A)ANTHRACENE	UG/KG	0/15	15	0/15			370.000	880.000	
BENZO(A)PYRENE	UG/KG	0/15	15	0/15			370.000	880.000	
BENZO(B)FLUORANTHENE	UG/KG	1/15	15	1/15	90.000-90.000	90.00	370.000	440.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/15	15	0/15			370.000	880.000	
BENZO(K)FLUORANTHENE	UG/KG	0/15	15	0/15			370.000	880.000	
BENZOIC ACID	UG/KG	0/13	13	0/13			990.000	4300.000	
BENZYL ALCOHOL	UG/KG	0/12	12	0/12			370.000	880.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/15	15	0/15			370.000	880.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/15	15	0/15			370.000	880.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/14	14	0/14			370.000	440.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	5/15	15	5/15	180.000-2800.000	1034.00	380.000	440.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/15	15	0/15			370.000	880.000	
CARBAZOLE	UG/KG	0/8	8	0/8			370.000	440.000	
CHRYSENE	UG/KG	0/15	15	0/15			370.000	880.000	
DI-N-BUTYL PHTHALATE	UG/KG	2/15	15	2/15	44.000-1400.000	722.00	370.000	440.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 10 - 15 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/15	15	0/15			370.000	880.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/15	15	0/15			370.000	880.000	
DIBENZOFURAN	UG/KG	0/15	15	0/15			370.000	880.000	
DIETHYL PHTHALATE	UG/KG	0/15	15	0/15			370.000	880.000	
DIMETHYL PHTHALATE	UG/KG	0/15	15	0/15			370.000	880.000	
FLUORANTHENE	UG/KG	1/15	15	1/15	190.000-190.000	190.00	370.000	440.000	
FLUORENE	UG/KG	0/15	15	0/15			370.000	880.000	
HEXACHLOROBENZENE	UG/KG	0/15	15	0/15			370.000	880.000	
HEXACHLOROBUTADIENE	UG/KG	0/15	15	0/15			370.000	880.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/15	15	0/15			370.000	880.000	
HEXACHLOROETHANE	UG/KG	0/15	15	0/15			370.000	880.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/15	15	0/15			370.000	880.000	
ISOPHORONE	UG/KG	0/15	15	0/15			370.000	880.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/14	14	0/14			370.000	440.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/15	15	0/15			370.000	880.000	
NAPHTHALENE	UG/KG	0/15	15	0/15			370.000	880.000	
NITROBENZENE	UG/KG	0/15	15	0/15			370.000	880.000	
P-CHLOROANILINE	UG/KG	0/15	15	0/15			370.000	880.000	
PENTACHLOROPHENOL	UG/KG	0/15	15	0/15			910.000	4300.000	
PHENANTHRENE	UG/KG	1/15	15	1/15	240.000-240.000	240.00	370.000	440.000	
PHENOL	UG/KG	0/15	15	0/15			370.000	880.000	
PYRENE	UG/KG	1/15	15	1/15	150.000-150.000	150.00	370.000	440.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/5	5	0/5			350.000	390.000	
1,2-DICHLOROBENZENE	UG/KG	0/5	5	0/5			350.000	390.000	
1,3-DICHLOROBENZENE	UG/KG	0/5	5	0/5			350.000	390.000	
1,4-DICHLOROBENZENE	UG/KG	0/5	5	0/5			350.000	390.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/5	5	0/5			850.000	1800.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
2,4-DICHLOROPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
2,4-DIMETHYLPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
2,4-DINITROPHENOL	UG/KG	0/5	5	0/5			850.000	1800.000	
2,4-DINITROTOLUENE	UG/KG	0/5	5	0/5			350.000	390.000	
2,6-DINITROTOLUENE	UG/KG	0/5	5	0/5			350.000	390.000	
2-CHLORONAPHTHALENE	UG/KG	0/5	5	0/5			350.000	390.000	
2-CHLOROPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
2-METHYLNAPHTHALENE	UG/KG	0/5	5	0/5			350.000	390.000	
2-METHYLPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
2-NITROANILINE	UG/KG	0/5	5	0/5			850.000	1800.000	
2-NITROPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/5	5	0/5			350.000	760.000	
3-NITROANILINE	NONE	0/5	5	0/5			850.000	1800.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/5	5	0/5			850.000	1800.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/5	5	0/5			350.000	390.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/5	5	0/5			350.000	390.000	
4-METHYLPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
4-NITROANILINE	UG/KG	0/5	5	0/5			850.000	1800.000	
4-NITROPHENOL	UG/KG	0/5	5	0/5			850.000	1800.000	
ACENAPHTHENE	UG/KG	0/5	5	0/5			350.000	390.000	
ACENAPHTHYLENE	UG/KG	0/5	5	0/5			350.000	390.000	
ANTHRACENE	UG/KG	0/5	5	0/5			350.000	390.000	
BENZO(A)ANTHRACENE	UG/KG	0/5	5	0/5			350.000	390.000	
BENZO(A)PYRENE	UG/KG	0/5	5	0/5			350.000	390.000	
BENZO(B)FLUORANTHENE	UG/KG	0/5	5	0/5			350.000	390.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/5	5	0/5			350.000	390.000	
BENZO(K)FLUORANTHENE	UG/KG	0/5	5	0/5			350.000	390.000	
BENZOIC ACID	UG/KG	0/5	5	0/5			910.000	1800.000	
BENZYL ALCOHOL	UG/KG	0/3	3	0/3			360.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/5	5	0/5			350.000	390.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/5	5	0/5			350.000	390.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/5	5	0/5			350.000	390.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/5	5	1/5	2000.000-2000.000	2000.00	360.000	390.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/5	5	0/5			350.000	390.000	
CARBAZOLE	UG/KG	0/4	4	0/4			350.000	390.000	
CHRYSENE	UG/KG	0/5	5	0/5			350.000	390.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/5	5	0/5			350.000	390.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 15 - 20 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/5	5	0/5			350.000	390.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/5	5	0/5			350.000	390.000	
DIBENZOFURAN	UG/KG	0/5	5	0/5			350.000	390.000	
DIETHYL PHTHALATE	UG/KG	0/5	5	0/5			350.000	390.000	
DIMETHYL PHTHALATE	UG/KG	0/5	5	0/5			350.000	390.000	
FLUORANTHENE	UG/KG	0/5	5	0/5			350.000	390.000	
FLUORENE	UG/KG	0/5	5	0/5			350.000	390.000	
HEXACHLOROBENZENE	UG/KG	0/5	5	0/5			350.000	390.000	
HEXACHLOROBUTADIENE	UG/KG	0/5	5	0/5			350.000	390.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/5	5	0/5			350.000	390.000	
HEXACHLOROETHANE	UG/KG	0/5	5	0/5			350.000	390.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/5	5	0/5			350.000	390.000	
ISOPHORONE	UG/KG	0/5	5	0/5			350.000	390.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/5	5	0/5			350.000	390.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/5	5	0/5			350.000	390.000	
NAPHTHALENE	UG/KG	0/5	5	0/5			350.000	390.000	
NITROBENZENE	UG/KG	0/5	5	0/5			350.000	390.000	
P-CHLOROANILINE	UG/KG	0/5	5	0/5			350.000	390.000	
PENTACHLOROPHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
PHENANTHRENE	UG/KG	0/5	5	0/5			850.000	1800.000	
PHENOL	UG/KG	0/5	5	0/5			350.000	390.000	
PYRENE	UG/KG	0/5	5	0/5			350.000	390.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
1,2,4-TRICHLOROBENZENE	UG/KG	0/3	3	0/3			380.000	410.000	
1,2-DICHLOROBENZENE	UG/KG	0/3	3	0/3			380.000	410.000	
1,3-DICHLOROBENZENE	UG/KG	0/3	3	0/3			380.000	410.000	
1,4-DICHLOROBENZENE	UG/KG	0/3	3	0/3			380.000	410.000	
2,4,5-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
2,4,6-TRICHLOROPHENOL	UG/KG	0/3	3	0/3			980.000	1900.000	
2,4-DICHLOROPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
2,4-DIMETHYLPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
2,4-DINITROPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
2,4-DINITROTOLUENE	UG/KG	0/3	3	0/3			980.000	1900.000	
2,6-DINITROTOLUENE	UG/KG	0/3	3	0/3			380.000	410.000	
2-CHLORONAPHTHALENE	UG/KG	0/3	3	0/3			380.000	410.000	
2-CHLOROPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
2-METHYLNAPHTHALENE	UG/KG	0/3	3	0/3			380.000	410.000	
2-METHYLPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
2-NITROANILINE	UG/KG	0/3	3	0/3			980.000	1900.000	
2-NITROPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
3,3'-DICHLOROBENZIDINE	UG/KG	0/3	3	0/3			410.000	780.000	
3-NITROANILINE	NONE	0/3	3	0/3			980.000	1900.000	
4,6-DINITRO-2-METHYLPHENOL	UG/KG	0/3	3	0/3			980.000	1900.000	
4-BROMOPHENYL PHENYL ETHER	UG/KG	0/3	3	0/3			380.000	410.000	
4-CHLORO-3-METHYLPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
4-CHLOROPHENYLPHENYL ETHER	UG/KG	0/3	3	0/3			380.000	410.000	
4-METHYLPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
4-NITROANILINE	UG/KG	0/3	3	0/3			980.000	1900.000	
4-NITROPHENOL	UG/KG	0/3	3	0/3			980.000	1900.000	
ACENAPHTHENE	UG/KG	0/3	3	0/3			380.000	410.000	
ACENAPHTHYLENE	UG/KG	0/3	3	0/3			380.000	410.000	
ANTHRACENE	UG/KG	0/3	3	0/3			380.000	410.000	
BENZO(A)ANTHRACENE	UG/KG	0/3	3	0/3			380.000	410.000	
BENZO(A)PYRENE	UG/KG	0/3	3	0/3			380.000	410.000	
BENZO(B)FLUORANTHENE	UG/KG	0/3	3	0/3			380.000	410.000	
BENZO(G,H,I)PERYLENE	UG/KG	0/3	3	0/3			380.000	410.000	
BENZO(K)FLUORANTHENE	UG/KG	0/3	3	0/3			380.000	410.000	
BENZOIC ACID	UG/KG	1/3	3	1/3	84.000-84.000	84.00	1900.000	2000.000	
BENZYL ALCOHOL	UG/KG	0/2	2	0/2			380.000	390.000	
BIS(2-CHLOROETHOXY)METHANE	UG/KG	0/3	3	0/3			380.000	410.000	
BIS(2-CHLOROETHYL)ETHER	UG/KG	0/3	3	0/3			380.000	410.000	
BIS(2-CHLOROISOPROPYL) ETHER	UG/KG	0/3	3	0/3			380.000	410.000	
BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG	1/3	3	1/3	120.000-120.000	120.00	380.000	410.000	
BUTYL BENZYL PHTHALATE	UG/KG	0/3	3	0/3			380.000	410.000	
CARBAZOLE	UG/KG	0/1	1	0/1			410.000	410.000	
CHRYSENE	UG/KG	0/3	3	0/3			380.000	410.000	
DI-N-BUTYL PHTHALATE	UG/KG	0/3	3	0/3			380.000	410.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
DI-N-OCTYL PHTHALATE	UG/KG	0/3	3	0/3			380.000	410.000	
DIBENZO(A,H)ANTHRACENE	UG/KG	0/3	3	0/3			380.000	410.000	
DIBENZOFURAN	UG/KG	0/3	3	0/3			380.000	410.000	
DIETHYL PHTHALATE	UG/KG	0/3	3	0/3			380.000	410.000	
DIMETHYL PHTHALATE	UG/KG	0/3	3	0/3			380.000	410.000	
FLUORANTHENE	UG/KG	0/3	3	0/3			380.000	410.000	
FLUORENE	UG/KG	0/3	3	0/3			380.000	410.000	
HEXACHLOROBENZENE	UG/KG	0/3	3	0/3			380.000	410.000	
HEXACHLOROBUTADIENE	UG/KG	0/3	3	0/3			380.000	410.000	
HEXACHLOROCYCLOPENTADIENE	UG/KG	0/3	3	0/3			380.000	410.000	
HEXACHLOROETHANE	UG/KG	0/3	3	0/3			380.000	410.000	
INDENO(1,2,3-CD)PYRENE	UG/KG	0/3	3	0/3			380.000	410.000	
ISOPHORONE	UG/KG	0/3	3	0/3			380.000	410.000	
N-NITROSO-DI-N-PROPYLAMINE	UG/KG	0/3	3	0/3			380.000	410.000	
N-NITROSODIPHENYLAMINE	UG/KG	0/3	3	0/3			380.000	410.000	
NAPHTHALENE	UG/KG	0/3	3	0/3			380.000	410.000	
NITROBENZENE	UG/KG	0/3	3	0/3			380.000	410.000	
P-CHLOROANILINE	UG/KG	0/3	3	0/3			380.000	410.000	
PENTACHLOROPHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
PHENANTHRENE	UG/KG	0/3	3	0/3			980.000	1900.000	
PHENOL	UG/KG	0/3	3	0/3			380.000	410.000	
PYRENE	UG/KG	0/3	3	0/3			380.000	410.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
SEMIVOLATILES DEPTH: 20 - 9999 FEET									
TRIBUTYL PHOSPHATE	UG/KG	0/2	2	0/2			380.000	390.000	

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.AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 0 - .5 FEET									
4,4'-DDD	UG/KG	0/109	108	0/109			3.400	99000.000	
4,4'-DDE	UG/KG	2/109	108	2/109	11.000-38.000	24.50	3.400	99000.000	
4,4'-DDT	UG/KG	4/109	108	4/109	3.000-19.000	10.33	3.400	99000.000	
ALDRIN	UG/KG	1/109	108	1/109	1.600-1.600	1.60	1.700	49000.000	
ALPHA-BHC	UG/KG	0/109	108	0/109			1.700	49000.000	
ALPHA-CHLORDANE	UG/KG	3/109	108	3/109	2.100-5.100	3.33	1.700	490000.000	
AROCLOR-1016	UG/KG	0/112	111	0/112			34.000	490000.000	
AROCLOR-1221	UG/KG	0/112	111	0/112			68.000	490000.000	
AROCLOR-1232	UG/KG	0/112	111	0/112			34.000	490000.000	
AROCLOR-1242	UG/KG	0/112	111	0/112			34.000	490000.000	
AROCLOR-1248	UG/KG	0/112	111	0/112			34.000	490000.000	
AROCLOR-1254	UG/KG	41/112	111	41/112	14.000-14000.000	1611.37	34.000	2600.000	
AROCLOR-1260	UG/KG	6/112	111	6/112	230.000-2800.000	1038.33	34.000	990000.000	
BETA-BHC	UG/KG	1/109	108	1/109	220.000-220.000	220.00	1.700	49000.000	
DELTA-BHC	UG/KG	0/109	108	0/109			1.700	49000.000	
DIELDRIN	UG/KG	4/109	108	4/109	0.550-8.900	3.61	3.400	99000.000	
ENDOSULFAN II	UG/KG	1/109	108	1/109	2.000-2.000	2.00	3.400	99000.000	
ENDOSULFAN SULFATE	UG/KG	1/109	108	1/109	0.730-0.730	0.73	3.400	99000.000	
ENDOSULFAN-I	UG/KG	0/109	108	0/109			1.700	49000.000	
ENDRIN	UG/KG	5/127	108	5/127	0.940-19.000	6.61	2.100	99000.000	
ENDRIN ALDEHYDE	UG/KG	0/64	64	0/64			3.400	34.000	
ENDRIN KETONE	UG/KG	0/109	108	0/109			3.400	99000.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES									
DEPTH: 0 - .5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/127	108	0/127			1.400	49000.000	
GAMMA-CHLORDANE	UG/KG	0/127	108	0/127			1.700	490000.000	
HEPTACHLOR	UG/KG	0/127	108	0/127			1.000	49000.000	
HEPTACHLOR EPOXIDE	UG/KG	2/127	108	2/127	1.000-2.800	1.90	1.700	49000.000	
METHOXYCHLOR	UG/KG	3/127	108	3/127	0.850-3.500	1.88	10.000	490000.000	
TOXAPHENE	UG/KG	0/127	108	0/127			84.000	990000.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
4,4'-DDD	UG/KG	0/61	60	0/61			3.500	720.000	
4,4'-DDE	UG/KG	0/61	60	0/61			3.600	720.000	
4,4'-DDT	UG/KG	0/61	60	0/61			3.600	720.000	
ALDRIN	UG/KG	0/61	60	0/61			1.800	360.000	
ALPHA-BHC	UG/KG	0/61	60	0/61			1.800	8400.000	
ALPHA-CHLORDANE	UG/KG	0/61	60	0/61			1.800	3600.000	
AROCLOR-1016	UG/KG	0/61	60	0/61			35.000	3600.000	
AROCLOR-1221	UG/KG	0/61	60	0/61			72.000	3600.000	
AROCLOR-1232	UG/KG	0/61	60	0/61			35.000	3600.000	
AROCLOR-1242	UG/KG	0/61	60	0/61			35.000	3600.000	
AROCLOR-1248	UG/KG	0/61	60	0/61			35.000	3600.000	
AROCLOR-1254	UG/KG	27/62	61	27/62	33.000-2800.000	575.07	40.000	970.000	
AROCLOR-1260	UG/KG	9/63	62	9/63	120.000-2100.000	414.44	35.000	7200.000	
BETA-BHC	UG/KG	2/61	60	2/61	46.000-78.000	62.00	1.800	360.000	
DELTA-BHC	UG/KG	0/61	60	0/61			1.800	360.000	
DIELDRIN	UG/KG	0/61	60	0/61			3.600	720.000	
ENDOSULFAN II	UG/KG	0/61	60	0/61			3.600	720.000	
ENDOSULFAN SULFATE	UG/KG	0/61	60	0/61			3.500	720.000	
ENDOSULFAN-I	UG/KG	0/61	60	0/61			1.800	360.000	
ENDRIN	UG/KG	0/61	60	0/61			3.500	720.000	
ENDRIN ALDEHYDE	UG/KG	0/4	4	0/4			3.500	4.100	
ENDRIN KETONE	UG/KG	0/61	60	0/61			3.500	720.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: .5 - 1 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/61	60	0/61			1.800	360.000	
GAMMA-CHLORDANE	UG/KG	0/61	60	0/61			1.800	3600.000	
HEPTACHLOR	UG/KG	0/61	60	0/61			1.800	360.000	
HEPTACHLOR EPOXIDE	UG/KG	0/61	60	0/61			1.800	360.000	
METHOXYCHLOR	UG/KG	0/61	60	0/61			18.000	3600.000	
TOXAPHENE	UG/KG	0/60	59	0/60			170.000	7200.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
4,4'-DDD	UG/KG	0/45	43	0/45			3.400	200.000	
4,4'-DDE	UG/KG	0/45	43	0/45			3.400	200.000	
4,4'-DDT	UG/KG	0/45	43	0/45			3.400	200.000	
ALDRIN	UG/KG	0/45	43	0/45			1.800	100.000	
ALPHA-BHC	UG/KG	0/45	43	0/45			1.800	100.000	
ALPHA-CHLORDANE	UG/KG	0/45	43	0/45			1.800	450.000	
AROCLOR-1016	UG/KG	0/45	43	0/45			34.000	2000.000	
AROCLOR-1221	UG/KG	0/45	43	0/45			37.000	4000.000	
AROCLOR-1232	UG/KG	0/45	43	0/45			34.000	2000.000	
AROCLOR-1242	UG/KG	0/45	43	0/45			34.000	2000.000	
AROCLOR-1248	UG/KG	0/45	43	0/45			34.000	2000.000	
AROCLOR-1254	UG/KG	7/45	43	7/45	40.000-4000.000	2212.43	34.000	900.000	
AROCLOR-1260	UG/KG	0/45	43	0/45			34.000	2000.000	
BETA-BHC	UG/KG	0/45	43	0/45			1.800	100.000	
DELTA-BHC	UG/KG	0/45	43	0/45			1.800	100.000	
DIELDRIN	UG/KG	0/45	43	0/45			3.400	200.000	
ENDOSULFAN II	UG/KG	0/45	43	0/45			3.400	200.000	
ENDOSULFAN SULFATE	UG/KG	0/45	43	0/45			3.400	200.000	
ENDOSULFAN-I	UG/KG	0/45	43	0/45			1.800	100.000	
ENDRIN	UG/KG	0/45	43	0/45			3.400	200.000	
ENDRIN ALDEHYDE	UG/KG	1/39	37	1/39	8.700-8.700	8.70	3.400	200.000	
ENDRIN KETONE	UG/KG	0/45	43	0/45			3.400	200.000	

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DRAFT

AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1 - 1.5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/45	43	0/45			1.800	100.000	
GAMMA-CHLORDANE	UG/KG	0/45	43	0/45			1.800	450.000	
HEPTACHLOR	UG/KG	0/45	43	0/45			1.800	100.000	
HEPTACHLOR EPOXIDE	UG/KG	0/45	43	0/45			1.800	100.000	
METHOXYCHLOR	UG/KG	0/45	43	0/45			18.000	1000.000	
TOXAPHENE	UG/KG	0/45	43	0/45			170.000	10000.000	

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
4,4'-DDD	UG/KG	0/94	89	0/94			3.400	430.000	
4,4'-DDE	UG/KG	0/94	89	0/94			3.400	430.000	
4,4'-DDT	UG/KG	0/94	89	0/94			3.400	430.000	
ALDRIN	UG/KG	0/94	89	0/94			1.700	220.000	
ALPHA-BHC	UG/KG	1/94	89	1/94	17.000-17.000	17.00	1.700	220.000	
ALPHA-CHLORDANE	UG/KG	0/94	89	0/94			1.700	2200.000	
AROCLOR-1016	UG/KG	0/95	91	0/95			34.000	2200.000	
AROCLOR-1221	UG/KG	0/95	90	0/95			68.000	2200.000	
AROCLOR-1232	UG/KG	0/95	91	0/95			34.000	2200.000	
AROCLOR-1242	UG/KG	0/95	91	0/95			34.000	2200.000	
AROCLOR-1248	UG/KG	0/95	91	0/95			34.000	2200.000	
AROCLOR-1254	UG/KG	10/95	90	10/95	26.000-1700.000	463.10	34.000	4300.000	
AROCLOR-1260	UG/KG	3/95	90	3/95	240.000-2700.000	1546.67	34.000	1800.000	
BETA-BHC	UG/KG	0/94	89	0/94			1.700	220.000	
DELTA-BHC	UG/KG	0/94	89	0/94			1.700	220.000	
DIELDRIN	UG/KG	0/94	89	0/94			3.400	430.000	
ENDOSULFAN II	UG/KG	0/94	89	0/94			3.400	430.000	
ENDOSULFAN SULFATE	UG/KG	0/94	88	0/94			3.400	430.000	
ENDOSULFAN-I	UG/KG	1/94	89	1/94	1.900-1.900	1.90	1.700	220.000	
ENDRIN	UG/KG	0/94	89	0/94			3.400	430.000	
ENDRIN ALDEHYDE	UG/KG	1/31	27	1/31	5.000-5.000	5.00	3.400	97.000	
ENDRIN KETONE	UG/KG	0/94	89	0/94			3.400	430.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 1.5 - 3 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/94	89	0/94			1.700	220.000	
GAMMA-CHLORDANE	UG/KG	0/94	89	0/94			1.700	2200.000	
HEPTACHLOR	UG/KG	0/94	89	0/94			1.700	220.000	
HEPTACHLOR EPOXIDE	UG/KG	0/94	89	0/94			1.700	220.000	
METHOXYCHLOR	UG/KG	0/94	89	0/94			17.000	2200.000	
TOXAPHENE	UG/KG	0/94	90	0/94			160.000	5000.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
4,4'-DDD	UG/KG	0/50	49	0/50			3.700	700.000	
4,4'-DDE	UG/KG	0/50	49	0/50			3.700	700.000	
4,4'-DDT	UG/KG	0/50	49	0/50			3.700	700.000	
ALDRIN	UG/KG	0/50	49	0/50			1.900	350.000	
ALPHA-BHC	UG/KG	0/50	49	0/50			1.900	350.000	
ALPHA-CHLORDANE	UG/KG	0/50	49	0/50			1.900	3500.000	
AROCLOR-1016	UG/KG	0/50	49	0/50			37.000	3500.000	
AROCLOR-1221	UG/KG	0/50	49	0/50			75.000	3500.000	
AROCLOR-1232	UG/KG	0/50	49	0/50			37.000	3500.000	
AROCLOR-1242	UG/KG	0/50	49	0/50			37.000	3500.000	
AROCLOR-1248	UG/KG	1/50	49	1/50	110.000-110.000	110.00	37.000	3500.000	
AROCLOR-1254	UG/KG	6/50	49	6/50	9.900-1200.000	262.32	18.000	850.000	
AROCLOR-1260	UG/KG	2/50	49	2/50	10.000-210.000	110.00	37.000	7000.000	
BETA-BHC	UG/KG	0/50	49	0/50			1.900	350.000	
DELTA-BHC	UG/KG	0/50	49	0/50			1.900	350.000	
DIELDRIN	UG/KG	0/50	49	0/50			3.700	700.000	
ENDOSULFAN II	UG/KG	0/50	49	0/50			3.700	700.000	
ENDOSULFAN SULFATE	UG/KG	0/50	49	0/50			3.700	700.000	
ENDOSULFAN-I	UG/KG	0/50	49	0/50			1.900	350.000	
ENDRIN	UG/KG	0/50	49	0/50			3.700	700.000	
ENDRIN ALDEHYDE	UG/KG	0/7	7	0/7			3.700	4.500	
ENDRIN KETONE	UG/KG	0/50	49	0/50			3.700	700.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 3 - 5 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/50	49	0/50			1.900	350.000	
GAMMA-CHLORDANE	UG/KG	0/50	49	0/50			1.900	3500.000	
HEPTACHLOR	UG/KG	0/50	49	0/50			1.900	350.000	
HEPTACHLOR EPOXIDE	UG/KG	0/50	49	0/50			1.900	350.000	
METHOXYCHLOR	UG/KG	0/50	49	0/50			19.000	3500.000	
TOXAPHENE	UG/KG	0/50	49	0/50			170.000	7000.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
4,4'-DDD	UG/KG	0/73	72	0/73			3.700	190.000	
4,4'-DDE	UG/KG	0/73	72	0/73			3.700	190.000	
4,4'-DDT	UG/KG	0/73	72	0/73			3.700	190.000	
ALDRIN	UG/KG	0/73	72	0/73			1.900	95.000	
ALPHA-BHC	UG/KG	0/73	72	0/73			1.900	350.000	
ALPHA-CHLORDANE	UG/KG	0/73	72	0/73			1.900	950.000	
AROCLOR-1016	UG/KG	0/73	72	0/73			37.000	950.000	
AROCLOR-1221	UG/KG	0/73	72	0/73			74.000	950.000	
AROCLOR-1232	UG/KG	0/73	72	0/73			37.000	950.000	
AROCLOR-1242	UG/KG	0/73	72	0/73			37.000	950.000	
AROCLOR-1248	UG/KG	0/73	72	0/73			37.000	950.000	
AROCLOR-1254	UG/KG	7/73	72	7/73	32.000-500.000	176.86	37.000	900.000	
AROCLOR-1260	UG/KG	0/73	72	0/73			37.000	1900.000	
BETA-BHC	UG/KG	0/73	72	0/73			1.900	350.000	
DELTA-BHC	UG/KG	0/73	72	0/73			1.900	350.000	
DIELDRIN	UG/KG	0/73	72	0/73			3.700	190.000	
ENDOSULFAN II	UG/KG	0/73	72	0/73			3.700	190.000	
ENDOSULFAN SULFATE	UG/KG	0/73	72	0/73			3.700	190.000	
ENDOSULFAN-I	UG/KG	0/73	72	0/73			1.900	95.000	
ENDRIN	UG/KG	0/73	72	0/73			3.700	190.000	
ENDRIN ALDEHYDE	UG/KG	0/44	44	0/44			3.700	4.700	
ENDRIN KETONE	UG/KG	0/73	72	0/73			3.700	190.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 5 - 10 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/73	72	0/73			1.900	350.000	
GAMMA-CHLORDANE	UG/KG	0/73	72	0/73			1.900	950.000	
HEPTACHLOR	UG/KG	0/73	72	0/73			1.900	95.000	
HEPTACHLOR EPOXIDE	UG/KG	0/73	72	0/73			1.900	95.000	
METHOXYCHLOR	UG/KG	0/73	72	0/73			19.000	950.000	
TOXAPHENE	UG/KG	0/73	72	0/73			180.000	1900.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
4,4'-DDD	UG/KG	0/15	15	0/15			3.700	110.000	
4,4'-DDE	UG/KG	0/15	15	0/15			3.700	110.000	
4,4'-DDT	UG/KG	0/15	15	0/15			3.700	110.000	
ALDRIN	UG/KG	0/15	15	0/15			1.900	54.000	
ALPHA-BHC	UG/KG	0/15	15	0/15			1.900	54.000	
ALPHA-CHLORDANE	UG/KG	0/15	15	0/15			1.900	540.000	
AROCLOR-1016	UG/KG	0/15	15	0/15			37.000	540.000	
AROCLOR-1221	UG/KG	0/15	15	0/15			75.000	540.000	
AROCLOR-1232	UG/KG	0/15	15	0/15			37.000	540.000	
AROCLOR-1242	UG/KG	0/15	15	0/15			37.000	540.000	
AROCLOR-1248	UG/KG	0/15	15	0/15			37.000	540.000	
AROCLOR-1254	UG/KG	0/15	15	0/15			37.000	1100.000	
AROCLOR-1260	UG/KG	0/15	15	0/15			37.000	1100.000	
BETA-BHC	UG/KG	0/15	15	0/15			1.900	54.000	
DELTA-BHC	UG/KG	0/15	15	0/15			1.900	54.000	
DIELDRIN	UG/KG	0/15	15	0/15			3.700	110.000	
ENDOSULFAN II	UG/KG	0/15	15	0/15			3.700	110.000	
ENDOSULFAN SULFATE	UG/KG	0/15	15	0/15			3.700	110.000	
ENDOSULFAN-I	UG/KG	0/15	15	0/15			1.900	54.000	
ENDRIN	UG/KG	0/15	15	0/15			3.700	110.000	
ENDRIN ALDEHYDE	UG/KG	0/9	9	0/9			3.700	4.300	
ENDRIN KETONE	UG/KG	0/15	15	0/15			3.700	110.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 10 - 15 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/15	15	0/15			1.900	54.000	
GAMMA-CHLORDANE	UG/KG	0/15	15	0/15			1.900	540.000	
HEPTACHLOR	UG/KG	0/15	15	0/15			1.900	54.000	
HEPTACHLOR EPOXIDE	UG/KG	0/15	15	0/15			1.900	54.000	
METHOXYCHLOR	UG/KG	0/15	15	0/15			19.000	540.000	
TOXAPHENE	UG/KG	0/15	15	0/15			180.000	1100.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
4,4'-DDD	UG/KG	0/5	5	0/5			3.500	19.000	
4,4'-DDE	UG/KG	0/5	5	0/5			3.500	19.000	
4,4'-DDT	UG/KG	0/5	5	0/5			3.500	19.000	
ALDRIN	UG/KG	0/5	5	0/5			1.800	9.500	
ALPHA-BHC	UG/KG	0/5	5	0/5			1.800	9.500	
ALPHA-CHLORDANE	UG/KG	0/5	5	0/5			1.800	95.000	
AROCLOR-1016	UG/KG	0/5	5	0/5			35.000	95.000	
AROCLOR-1221	UG/KG	0/5	5	0/5			72.000	95.000	
AROCLOR-1232	UG/KG	0/5	5	0/5			35.000	95.000	
AROCLOR-1242	UG/KG	0/5	5	0/5			35.000	95.000	
AROCLOR-1248	UG/KG	0/5	5	0/5			35.000	95.000	
AROCLOR-1254	UG/KG	0/5	5	0/5			35.000	190.000	
AROCLOR-1260	UG/KG	0/5	5	0/5			35.000	190.000	
BETA-BHC	UG/KG	0/5	5	0/5			1.800	9.500	
DELTA-BHC	UG/KG	0/5	5	0/5			1.800	9.500	
DIELDRIN	UG/KG	0/5	5	0/5			3.500	19.000	
ENDOSULFAN II	UG/KG	0/5	5	0/5			3.500	19.000	
ENDOSULFAN SULFATE	UG/KG	0/5	5	0/5			3.500	19.000	
ENDOSULFAN-I	UG/KG	0/5	5	0/5			1.800	9.500	
ENDRIN	UG/KG	0/5	5	0/5			3.500	19.000	
ENDRIN ALDEHYDE	UG/KG	0/4	4	0/4			3.500	3.800	
ENDRIN KETONE	UG/KG	0/5	5	0/5			3.500	19.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 15 - 20 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/5	5	0/5			1.800	9.500	
GAMMA-CHLORDANE	UG/KG	0/5	5	0/5			1.800	95.000	
HEPTACHLOR	UG/KG	0/5	5	0/5			1.800	9.500	
HEPTACHLOR EPOXIDE	UG/KG	0/5	5	0/5			1.800	9.500	
METHOXYCHLOR	UG/KG	1/5	5	1/5	22.000-22.000	22.00	18.000	95.000	
TOXAPHENE	UG/KG	0/5	5	0/5			180.000	200.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 20 - 9999 FEET									
4,4'-DDD	UG/KG	0/3	3	0/3			4.000	19.000	
4,4'-DDE	UG/KG	0/3	3	0/3			4.000	19.000	
4,4'-DDT	UG/KG	0/3	3	0/3			4.000	19.000	
ALDRIN	UG/KG	0/3	3	0/3			2.100	9.300	
ALPHA-BHC	UG/KG	0/3	3	0/3			2.100	9.300	
ALPHA-CHLORDANE	UG/KG	0/3	3	0/3			2.100	93.000	
AROCLOR-1016	UG/KG	0/3	3	0/3			40.000	93.000	
AROCLOR-1221	UG/KG	0/3	3	0/3			81.000	93.000	
AROCLOR-1232	UG/KG	0/3	3	0/3			40.000	93.000	
AROCLOR-1242	UG/KG	0/3	3	0/3			40.000	93.000	
AROCLOR-1248	UG/KG	0/3	3	0/3			40.000	93.000	
AROCLOR-1254	UG/KG	0/3	3	0/3			40.000	190.000	
AROCLOR-1260	UG/KG	0/3	3	0/3			40.000	190.000	
BETA-BHC	UG/KG	0/3	3	0/3			2.100	9.300	
DELTA-BHC	UG/KG	0/3	3	0/3			2.100	9.300	
DIELDRIN	UG/KG	0/3	3	0/3			4.000	19.000	
ENDOSULFAN II	UG/KG	0/3	3	0/3			4.000	19.000	
ENDOSULFAN SULFATE	UG/KG	0/3	3	0/3			4.000	19.000	
ENDOSULFAN-I	UG/KG	0/3	3	0/3			2.100	9.300	
ENDRIN	UG/KG	0/3	3	0/3			4.000	19.000	
ENDRIN ALDEHYDE	UG/KG	0/1	1	0/1			4.000	4.000	
ENDRIN KETONE	UG/KG	0/3	3	0/3			4.000	19.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
PESTICIDES DEPTH: 20 - 9999 FEET									
GAMMA-BHC (LINDANE)	UG/KG	0/3	3	0/3			2.100	9.300	
GAMMA-CHLORDANE	UG/KG	0/3	3	0/3			2.100	93.000	
HEPTACHLOR	UG/KG	0/3	3	0/3			2.100	9.300	
HEPTACHLOR EPOXIDE	UG/KG	0/3	3	0/3			2.100	9.300	
METHOXYCHLOR	UG/KG	0/3	3	0/3			21.000	93.000	
TOXAPHENE	UG/KG	0/3	3	0/3			180.000	210.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

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Parameter	Units	Summary of Positive/Nonpositive Detections: Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS									
DEPTH: 0 - .5 FEET									
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NG/G	0/1	1	0/1			1000.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/1	1	0/1			1000.000	1000.000	
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/21	21	0/21			1000.000	1000.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/3	3	0/3			32.000	1000.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/3	3	0/3			59.000	1000.000	
HEPTACHLORODIBENZOFURANS	NG/G	1/3	3	1/3	320.000-320.000	320.00	230.000	1000.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/9	9	0/9			320.000	1000.000	
HEXACHLORODIBENZOFURANS	NG/G	0/9	9	0/9			83.000	1000.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	2/3	3	2/3	610.000-1100.000	855.00	110.000	1000.000	
OCTACHLORODIBENZOFURAN	NG/G	1/3	3	1/3	1300.000-1300.000	1300.00	1000.000	1000.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/9	9	0/9			540.000	1000.000	
							100.000	1000.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS									
DEPTH: 0 - .5 FEET									
PENTACHLORODIBENZOFURANS	NG/G	0/9	9	0/9			30.000	1000.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/9	9	0/9			36.000	1000.000	
TETRACHLORODIBENZOFURANS	NG/G	0/9	9	0/9			31.000	1000.000	

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001698

AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: .5 - 1 FEET									
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			44.000	270.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/2	2	0/2			26.000	190.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			150.000	310.000	
HEPTACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			180.000	200.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			230.000	300.000	
HEXACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			120.000	270.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	0/2	2	0/2			360.000	890.000	
OCTACHLORODIBENZOFURAN	NG/G	1/2	2	1/2	240.000-240.000	240.00	620.000	620.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			140.000	350.000	
PENTACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			120.000	200.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/2	2	0/2			110.000	360.000	
TETRACHLORODIBENZOFURANS	NG/G	0/2	2	0/2			78.000	160.000	

001699

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS									
DEPTH: 1 - 1.5 FEET									
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/4	4	0/4			90.000	360.000	

004100

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 1.5 - 3 FEET									
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
1,2,3,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	NG/G	0/10	10	0/10			71.000	1000.000	
2,3,7,8-TETRACHLORODIBENZOFURAN	NG/G	0/6	6	0/6			960.000	1000.000	
HEPTACHLORODIBENZO-P-DIOXINS	NG/G	0/6	6	0/6			960.000	1000.000	
HEPTACHLORODIBENZOFURANS	NG/G	0/6	6	0/6			960.000	1000.000	
HEXACHLORODIBENZO-P-DIOXINS	NG/G	0/6	6	0/6			960.000	1000.000	
HEXACHLORODIBENZOFURANS	NG/G	0/6	6	0/6			960.000	1000.000	
OCTACHLORODIBENZO-P-DIOXIN	NG/G	0/6	6	0/6			960.000	1000.000	
OCTACHLORODIBENZOFURAN	NG/G	1/6	6	1/6	1500.000-1500.000	1500.00	960.000	1000.000	
PENTACHLORODIBENZO-P-DIOXINS	NG/G	0/6	6	0/6			960.000	1000.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
DIOXINS/FURANS DEPTH: 1.5 - 3 FEET									
PENTACHLORODIBENZOFURANS	NG/G	0/6	6	0/6			960.000	1000.000	
TETRACHLORODIBENZO-P-DIOXINS	NG/G	0/6	6	0/6			960.000	1000.000	
TETRACHLORODIBENZOFURANS	NG/G	0/6	6	0/6			960.000	1000.000	

001702

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 0 - .5 FEET									
NITRATE, AS NITROGEN	MG/KG	1/1	0	1/1	435.000-435.000	435.00			

001703

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY									
DEPTH: 1 - 1.5 FEET									
TPH	PCI/G	0/1	0	0/1			10.000	10.000	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 1.5 - 3 FEET									
TPH	PCI/G	1/1	0	1/1	23600.000-23600.000	23600.00			

001705

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6699

AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 3 - 5 FEET									
TOTAL ORGANIC CARBON	MG/KG	3/3	3	3/3	5865.000-15256.000	12125.67			
TPH	PCI/G	1/2	0	1/2	2160.000-2160.000	2160.00	10.000	10.000	

001706

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 5 - 10 FEET									
TOTAL ORGANIC CARBON	MG/KG	4/4	4	4/4	1188.000-15792.000	9226.00			

001707

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY									
DEPTH: 10 - 15 FEET									
TPH	PCI/G	0/1	0	0/1			10.000	10.000	

001708

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
GENERAL CHEMISTRY DEPTH: 15 - 20 FEET									
TOTAL ORGANIC CARBON	MG/KG	1/1	1	1/1	1140.000-1140.000	1140.00			
TPH	PCI/G	1/1	0	1/1	1270.000-1270.000	1270.00			

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Summary of Positive/Nonpositive Detections

Parameter	Units	Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
No sort code listed. DEPTH: 0 - .5 FEET									
3-METHYLPHENOL	NONE	0/10	0	0/10			1000.000	5000.000	
TRANS-1,2-DICHLOROETHENE	NONE	2/19	0	2/19	3.000-3.000	3.00	5.000	6.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
ORGANOPHOSPHORUS PESTICIDES DEPTH: 0 - .5 FEET									
AZINPHOSMETHYL	UG/KG	0/1	1	0/1			82.000	82.000	
DEMETON	UG/KG	0/1	1	0/1			66.000	66.000	
DIAZINON	UG/KG	0/1	1	0/1			33.000	33.000	
DIMETHOATE	UG/KG	0/6	6	0/6			0.030	0.040	
DISULFOTON	UG/KG	0/7	7	0/7			0.030	33.000	
ETHION	UG/KG	0/1	1	0/1			33.000	33.000	
FAMPHUR	UG/KG	0/6	6	0/6			0.090	0.120	
MALATHION	UG/KG	0/1	1	0/1			33.000	33.000	
METHYL PARATHION	UG/KG	0/7	7	0/7			0.060	33.000	
PARATHION	UG/KG	0/7	7	0/7			0.060	33.000	
PHORATE	UG/KG	0/6	6	0/6			0.060	0.080	
THIONAZIN	UG/KG	0/6	6	0/6			0.030	0.040	

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AREA: PRODUCTION AREA
FEMP SUBSURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
ORGANOPHOSPHORUS PESTICIDES DEPTH: 1.5 - 3 FEET									
AZINPHOSMETHYL	UG/KG	0/6	6	0/6			81.000	82.000	
DEMETON	UG/KG	0/6	6	0/6			65.000	66.000	
DIAZINON	UG/KG	0/6	6	0/6			32.000	33.000	
DISULFOTON	UG/KG	0/6	6	0/6			32.000	33.000	
ETHION	UG/KG	0/6	6	0/6			32.000	33.000	
MALATHION	UG/KG	0/6	6	0/6			32.000	33.000	
METHYL PARATHION	UG/KG	0/6	6	0/6			32.000	33.000	
PARATHION	UG/KG	0/6	6	0/6			32.000	33.000	

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AREA: PRODUCTION AREA
FEMP SURFACE SOIL DATA, 1988-1993

DRAFT

Parameter	Units	Summary of Positive/Nonpositive Detections							
		Freq. of Detection	Total Validated Samples	Freq. of Detection Above Bckg.	Range of Positive Detections	Average of Positive Detections	Minimum Nondetect	Maximum Nondetect	95% Background Concentration Value
HERBICIDES DEPTH: 0 - .5 FEET									
2,4,5-TP (SILVEX)	UG/KG	0/18	0	0/18			3.600	5.000	
2,4-D	UG/KG	0/18	0	0/18			5.000	30.000	

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