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ADDENDUM TO THE WAC ATTAINMENT REPORT FOR AREA 7 SOILS (SILOS PROJECT AREA) -

WAC CHARACTERIZATION OF A SECTION OF THE PILOT PLANT DRAINAGE DITCH

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO

JANUARY 1999

U.S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE

20500-RP-0001
REVISION A

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LIST OF ACRONYMS AND ABBREVIATIONS

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DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
OEPA	Ohio Environmental Protection Agency
OSDF	On-Site Disposal Facility
PSP	Project Specific Plan
WAC	Waste Acceptance Criteria

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1.0 BACKGROUND

The design footprint for the southern portion of the planned Silos Project infrastructure road necessitates excavation and rerouting a section of the existing Pilot Plant Ditch. The affected section of ditch is approximately 50 feet by 30 feet and is located south of Silo 1. The toe of the rock rip-rap to be used for road embankment support is designed to extend into the vicinity of the existing ditch line. The initial engineering design plans for the road did not account for re-routing of the Pilot Plant Ditch and therefore was not incorporated into the Project-Specific Plan for WAC Attainment Sampling of Area 7 Soils (DOE 1998).

This report summarizes the sampling design, selection of On-Site Disposal Facility (OSDF) WAC constituents of concern, and the conclusions drawn from this characterization of soils in the Pilot Plant Ditch area.

2.0 SAMPLING DESIGN

A sampling design was developed for characterization of the soils planned for excavation in the Pilot Plant Ditch and surrounding bank area which is documented in the Variance Form (No. 20500PSP01-7) included as Attachment A. The sampling design included ten sample locations (Figure 1), each having a target depth which corresponds to the designed excavation depth. At each location, the entire soil core collected down to the target depth was subjected to field radiological screening using a beta-gamma meter (frisker) to apply a biased sampling approach. Two of the ten boring locations were located within the centerline of the ditch during low flow with the remainder locations on the bank of the ditch. No above-background radiological levels were encountered during the sampling therefore all samples were collected from the surface.

The process for selecting the constituents of concern for this Pilot Plant Ditch area entailed reviewing all analytical results for soil and sediment in the site-wide environmental database for which positive detections were reported. The area footprint used for the data query extended from the existing Pilot Plant Ditch sump located west of the Advanced Wastewater Treatment Facility to the fence west of the silos. No positive detections were reported for the WAC constituents or Resource Conservation and Recovery Act (RCRA) list of contaminants near the regulatory limits. In fact, positive detections were near background levels. The historical analytical data from the database query are included as Attachment B. Total

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uranium and technetium-99 samples were included in the analytical plan due to their ubiquitous nature, and, in the case of technetium-99, its relatively low WAC limit.

3.0 SUMMARY OF ANALYTICAL RESULTS AND CONCLUSIONS

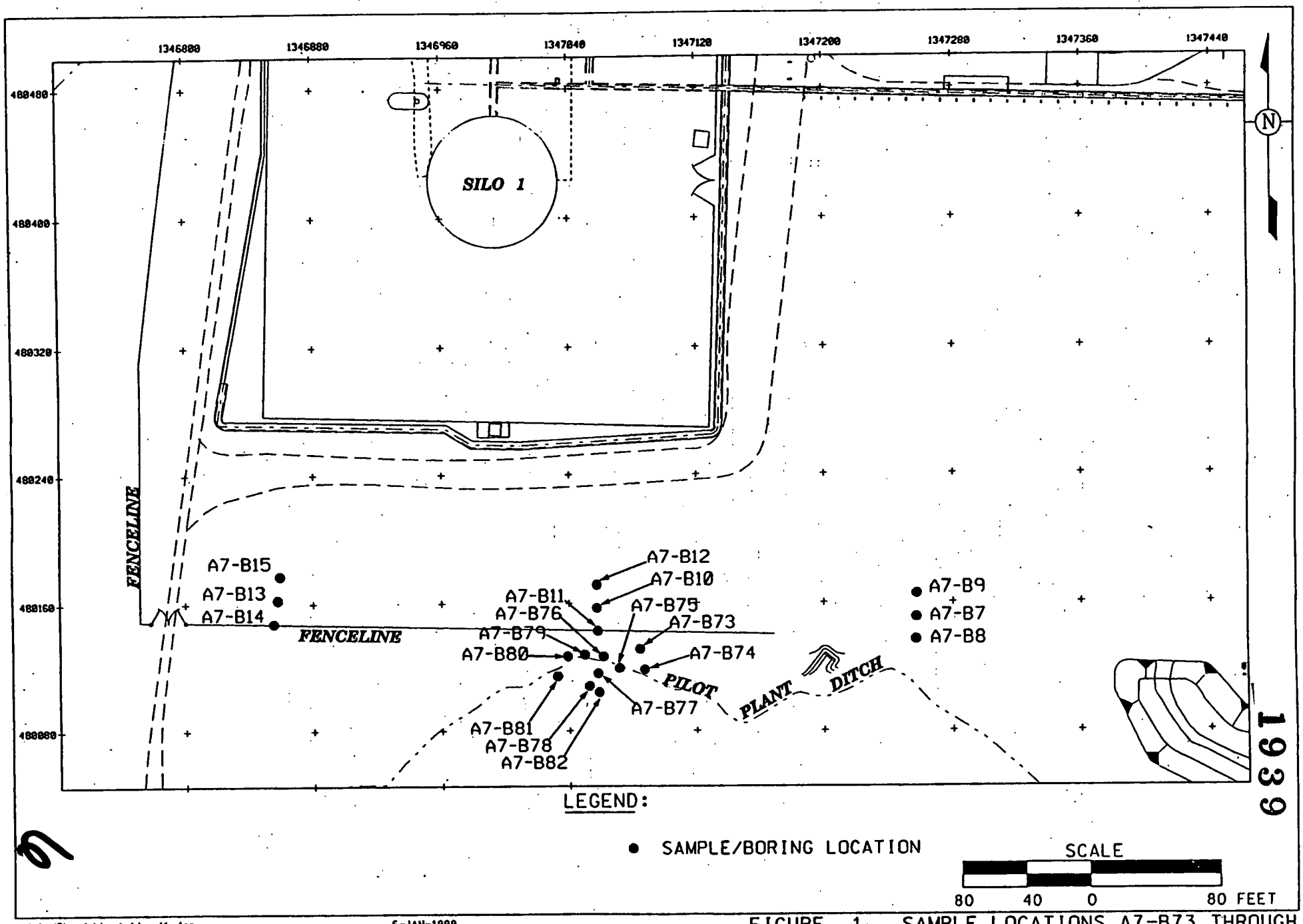
The recent sampling results are summarized in Table 1 below. The highest total uranium and technetium-99 result was 127 mg/kg and 2.1 pCi/g, respectively, which was obtained from a sediment sample collected from the ditch channel (sample ID A7-B75-1-R). The sample results demonstrate that the soils are well below the WAC limit for the two constituents of concern and are near background levels in most cases.

TABLE 1

Summary of WAC Analytical Data for the Pilot Plant Ditch Section Planned For Excavation

Sample Identifier	General Location	Total Uranium (mg/kg)	Technetium-99 (pCi/g)	Sample Depth Interval	Total Boring Depth
A7-B73-1-R	North bank of ditch	15 mg/kg	0.9 pCi/g	0-0.5 feet	6.4 feet
A7-B74-1-R	North bank of ditch	11 mg/kg	1.3 pCi/g	0-0.5 feet	1.6 feet
A7-B75-1-R	In centerline of ditch	127 mg/kg	2.7 pCi/g	0-0.5 feet	1.5 feet
A7-B76-1-R	North bank of ditch	33 mg/kg	1.8 pCi/g	0-0.5 feet	1.4 feet
A7-B77-1-R	South bank of ditch	25 mg/kg	1.5 pCi/g	0-0.5 feet	3.4 feet
A7-B78-1-R	South bank of ditch	27 mg/kg	1.3 pCi/g	0-0.5 feet	4.5 feet
A7-B79-1-R	In centerline of ditch	119 mg/kg	0.9 pCi/g	0-0.5 feet	1.2 feet
A7-B80-1-R	North bank of ditch	65 mg/kg	2.1 pCi/g	0-0.5 feet	1.4 feet
A7-B81-1-R	South bank of ditch	26 mg/kg	1.6 pCi/g	0-0.5 feet	1.5 feet
A7-B82-1-R	South bank of ditch	30 mg/kg	0.6 pCi/g	0-0.5 feet	5.6 feet

The results obtained from this sampling design, combined with the historical data, demonstrate that there is no above-WAC concern for the soils identified for excavation in the Pilot Plant Ditch vicinity as outlined in the Silos Project infrastructure road engineering design drawings. Therefore, the Silos Project plans to proceed with excavation of this soil and debris to be dispositioned per the Silos Project waste management plan in early Spring of 1999.



/dgls/5bsa1/dgn/sllord4.dgn
STATE PLANAR COORDINATE SYSTEM 1927

6-JAN-1999

FIGURE 1. SAMPLE LOCATIONS A7-B73 THROUGH A7-B82, PILOT PLANT DITCH AREA

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REFERENCES

U.S. Department of Energy, 1998a, "WAC Attainment Report for Area 7 Soils (Silos Project Area)," Draft, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, Ohio.

U.S. Department of Energy, 1998b, "WAC Attainment Plan for the On-Site Disposal Facility," Final, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, Ohio.

U.S. Department of Energy, 1998c, "Project Specific Plan for WAC Attainment Sampling of Area 7 Soils," Final, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, Ohio.

ATTACHMENT A

Variance No. 20500PSP01-7

VARIANCE / FIELD CHANGE NOTICE

V/F 20500PSP01-7

WBS NO.: 20500PSP01

PROJECT TITLE: PSP for WAC Attainment Sampling of Area 7 Soils

Date: 12/16/98

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VARIANCE / FIELD CHANGE NOTICE (Include justification): 20500-PSP-0001 Rev.0

This variance provides direction on additional sampling to be performed in the vicinity of the Pilot Plant Drainage Ditch in support of planned excavation for the Silos Project infrastructure road. The initial engineering design did not provide for re-routing of the drainage ditch as a result of a planned rock berm to be installed during road construction which would potentially disrupt storm water flow within the ditch. The design drawings were revised to include re-routing of approximately 50 to 75-foot section of channel. The revised drawings are attached along with cross-sectional drawings indicating the approximate depth of excavation and location of the sample points.

The sampling design includes ten sampling points spaced over the planned excavation area which encompasses a 50 to 75-foot section of the ditch and the soil bank to the south of the ditch. The entire area planned for excavation is approximately 75 feet by 25 feet.

Analytes	*TAL*	*Container/Mass*	*Preservative*
Total U / Tc-99	TAL A	250 mL/300 g	None

Sample IDs	*Total Depth*
A7-B73-*x*-R	555' Elevation
A7-B74-*x*-R	555' Elevation
A7-B75-*x*-R	555' Elevation
A7-B76-*x*-R	555' Elevation
A7-B77-*x*-R	555' Elevation
A7-B78-*x*-R	555' Elevation
A7-B79-*x*-R	555' Elevation
A7-B80-*x*-R	555' Elevation
A7-B81-*x*-R	555' Elevation
A7-B82-*x*-R	555' Elevation

ECDC CONTROLLED
COPY NO.
8591

Note: The "*x*" will be replaced with the appropriate depth code as specified in the PSP (1 for 0-0.5 feet, 2 for 0.5-1.0 feet, etc.). The total boring depth will be determined based on the marked surface elevation at each sample location (surface elevation - 555 feet elevation = total depth).

All samples will be collected from the interval having the highest radiological field reading (beta-gamma frisker); if all soil intervals are background, then the 0.0-0.5 foot interval will be collected.

The total depth of each boring will extend to 555 feet in elevation. The total depths in feet will be recorded in the Field Activity Log during the sampling event. If an obstruction is encountered, the location should be relocated within the limits of the penetration permit. A minimum of three boring attempts should be made at each location if obstructions are encountered.

The sampling equipment to be utilized shall include a manually driven Macro-core or hand auger. A heavy steel bar with a blunt end may also be used to penetrate through obstructions such as rocks or roots.

For sample locations in the stream bed (B75 and B79), collection of soil is preferable down to the 555 feet elevation. The points may be moved along the stream channel up to ten feet in either direction if necessary to collect soil. However, it may be necessary to collect sediment as the 0.0-0.5 foot interval. If this is the case, attempt to collect only silt and fine-grained materials and avoid gravel to the extent possible.

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Justification:

Characterization of the described area of soils is necessary due to excavation planned to install rock to support the planned infrastructure road. This rock will extend into the existing Pilot Plant Drainage Ditch which necessitates th need to re-route the ditch from approximately the 6+75 station to the 7+25 station as illustrated on the attached design drawings.

REQUESTED BY: Mike Frank Date: 12/16/98

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DAT
X	QUALITY ASSURANCE	12-16-98	X	CHARACTERIZATION LEAD	12-16
	DATA QUALITY MANAGEMENT		X	FIELD MANAGER	12-16
	ANALYTICAL CUSTOMER SUPPORT		X	Sites Project Infrastructure Mgr.	12-16
	OTHER		X	AREA 7 PROJECT MGR.	12-16-

VARIANCE/FCN APPROVED [X]YES [ ]NO

REVISION REQUIRED: [ ]YES [x]NO

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: Jeanie Roeser	OTHER:
QUALITY ASSURANCE:	OTHER:	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

Variance #7
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HORIZONTAL: 1" = 10'

VERTICAL: 1" = 10'

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T. CRAWFORD 12-14-98
920-5042
-5819

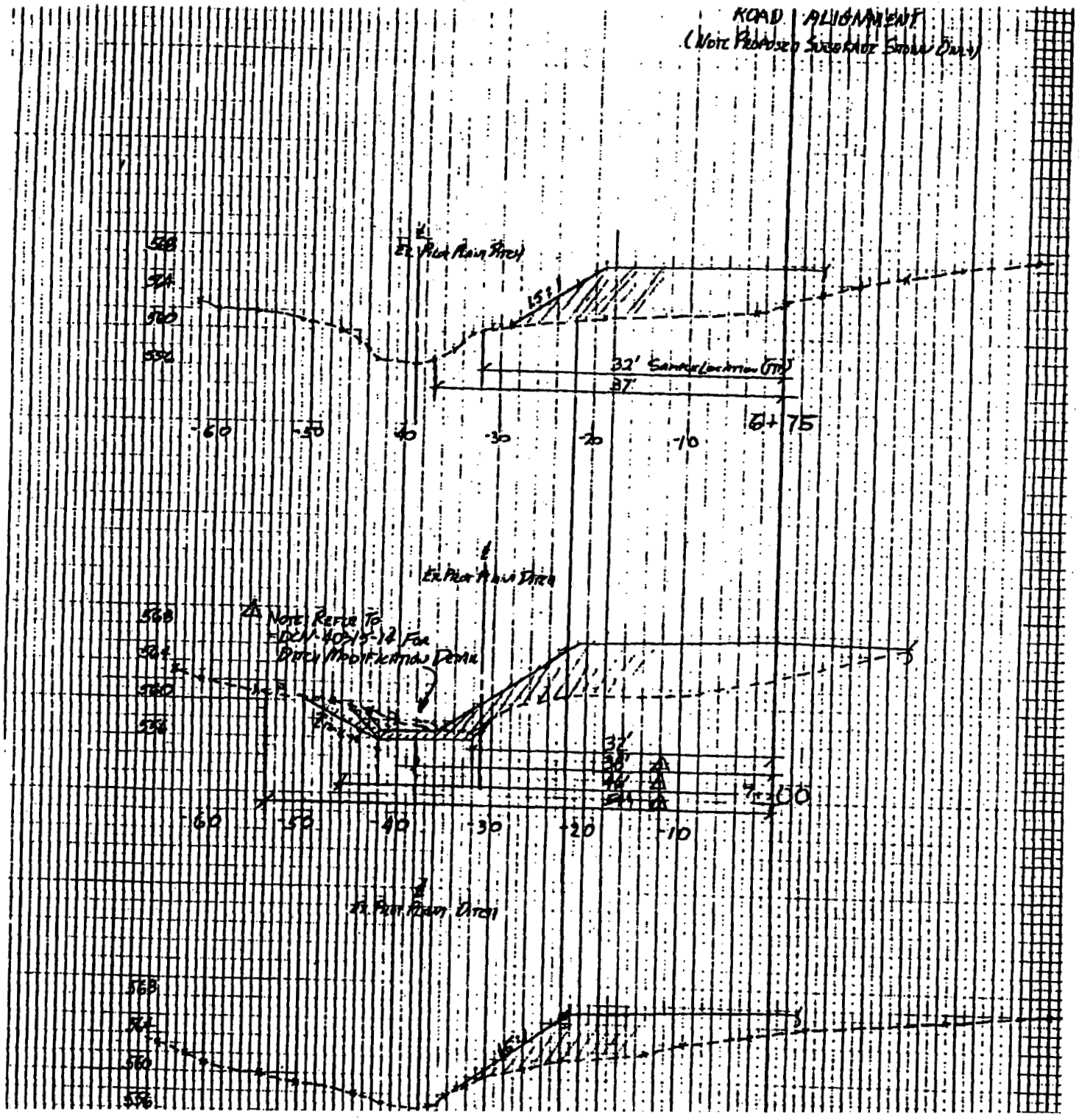
REVISION △1 - 12-16-98 ℄
- CORRECTED STATION 6+12.5 TO 7+12.5
- REVISED STA 7+00 CROSSECTION TO INCLUDE OVA DCN-40315-14 RAID INFO RECEIVED 12-16-98
- MOVED STATION 7+00 SAMPLE PTS
  FROM -42' TO -38'
  FROM -50' TO -46'
  ADDED -54'
  ALL PER EPA DISCUSSIONS 12-16-98
- PLACE SAMPLE PT. @ PILOT PLANT ℄ FOR STA 6+87.5 & 7+12.5 OR RELOCATE ON FIRM SOIL W/IN ℄
- ADDED SAMPLE NO. TO TABLE

SUMMARY

SAMPLE LOCATIONS

STATION	DISTANCE FROM RD ℄	DESCRIPTION	△1 SAMPLE NO.
6+75	32' LEFT OR -32'	—	A7-B73
	-37'	—	A7-B74
△1 6+87.5	-35' ±	PILOT PLANT DITCH ℄	A7-B75
7+00	-32'	—	A7-B76
	-38' △1	—	A7-B77
	-46' △1	—	A7-B78
	-54' △1	—	A7-B82
△1 7+12.5	-30' ±	PILOT PLANT DITCH ℄	A7-B79
7+25	-35'	—	A7-B80
	-41'	—	A7-B81

Variance #7



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Received 12-16-98 From 004

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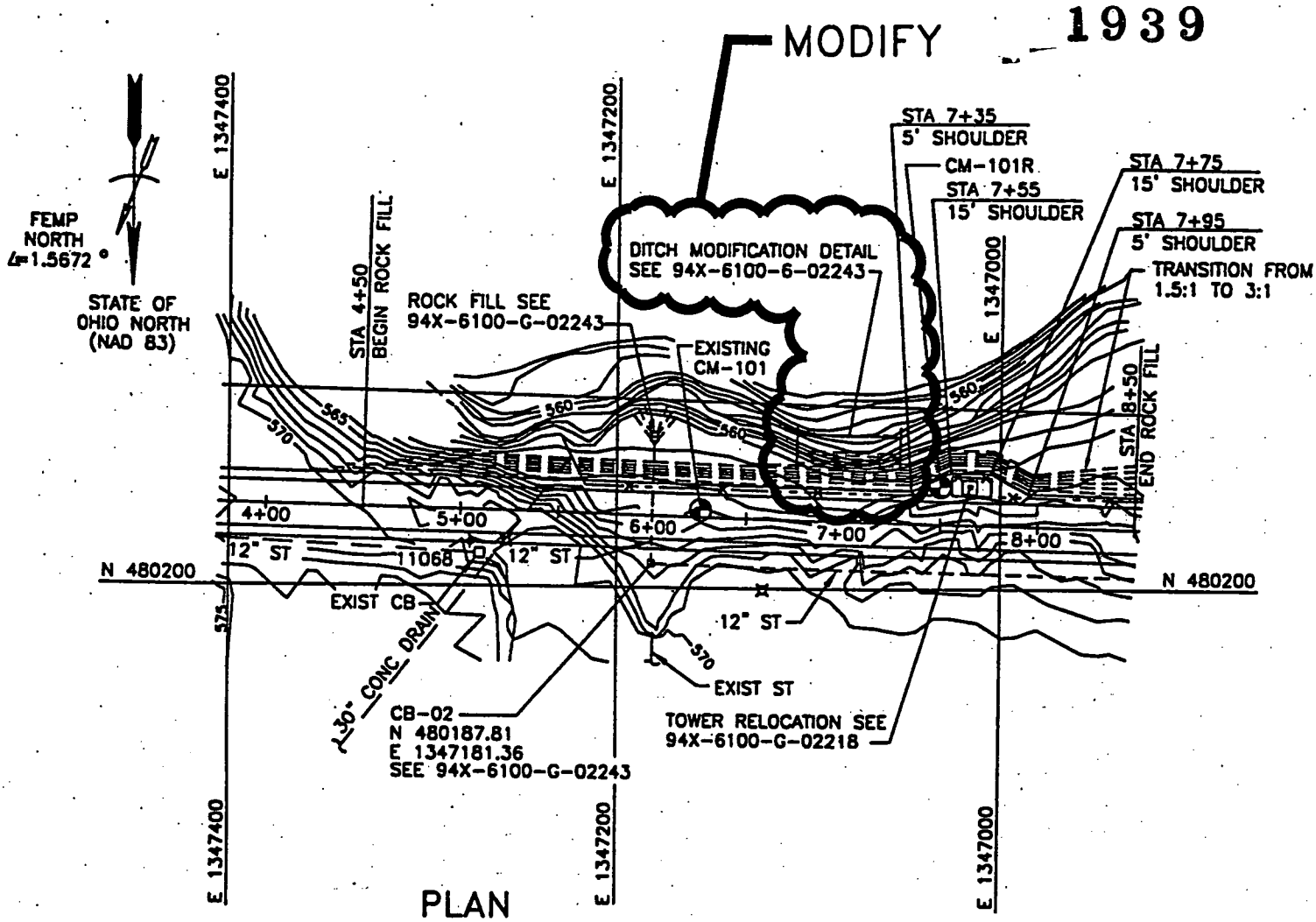

PLAN

STA 0+00 – 12+00

SCALE: 1"=50'

50 0 50 100

SCALE IN FEET

PSP
Variance #7
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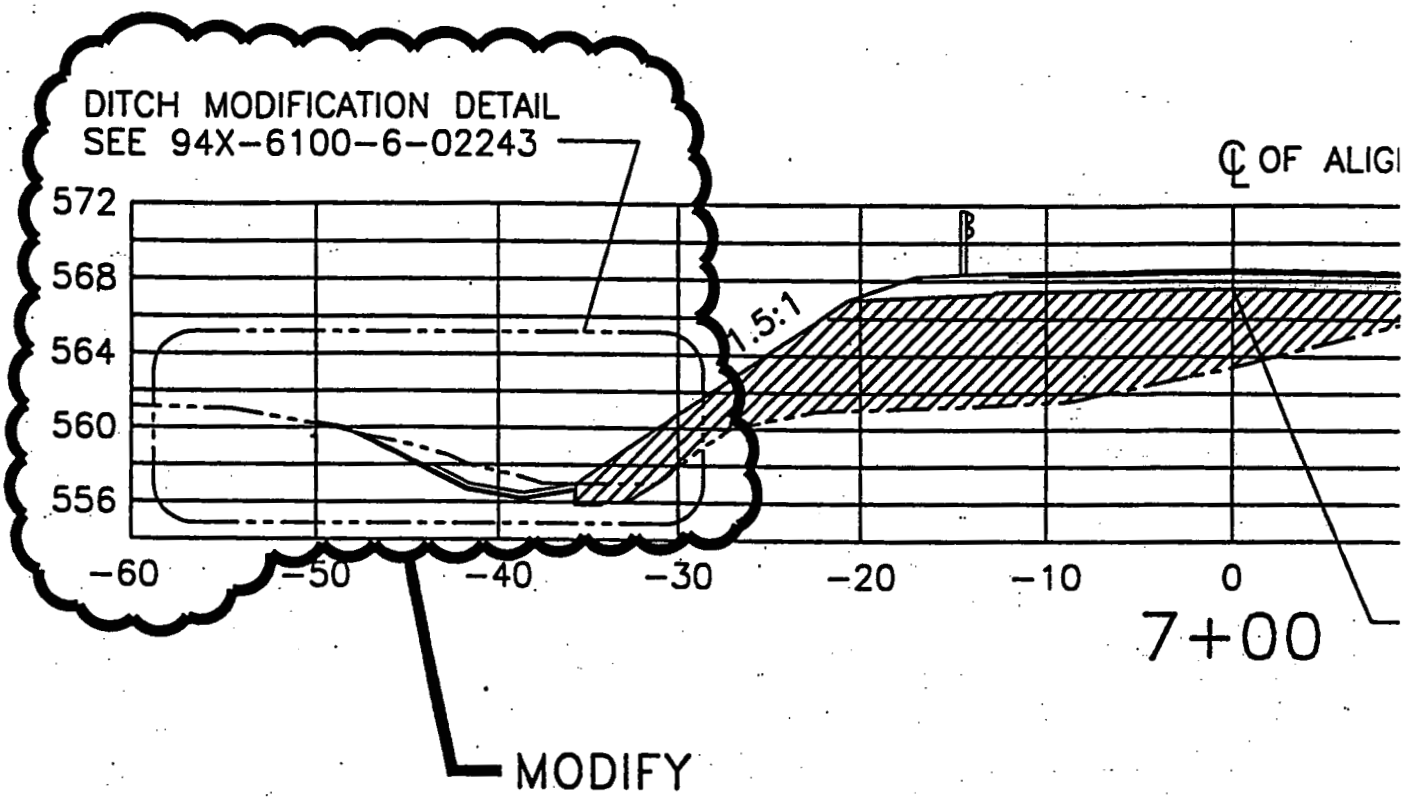
FLUOR DANIEL NORTHWEST, INC.		DESIGN CHANGE NOTICE		
DESCRIPTION CHANGE: MODIFY PLAN VIEW TO REFERENCE DITCH MODIFICATION		BASE DOC. NO. 94X-6100-G-02210 13 SHT/PG. 1 REV. 0		
PREPARED BY: RS CHRISTENSEN	DATE: 12/9/98	CADCODE: WIN95:ACD2:14.0:SS		
DISCIPLINE ENGINEER: D MESSINGER	DATE: 12/9/98	DCN-40315-014	PAGE 3	REV. 0
DISCIPLINE: CIVIL	CADFILE: DCN14.DWG			



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PSP Variou
#7
Page 6 o

FLUOR DANIEL NORTHWEST, INC.		DESIGN CHANGE NOTICE
DESCRIPTION CHANGE: MODIFY CROSS SECTION AT STATION 7+00 TO SHOW MODIFICATION IN CHANNEL		BASE DOC. NO. 94X-6100-G-02213 SHT/PG. 1 REV. 0
PREPARED BY: RS CHRISTENSEN	DATE: 12/9/98	CADCODE: WIN95:ACD2:14.0:SS
DISCIPLINE ENGINEER: D MESSINGER	DATE: 12/9/98	DCN-40315-014 PAGE 4
DISCIPLINE: CIVIL	CADFILE: DCN14.DWG	

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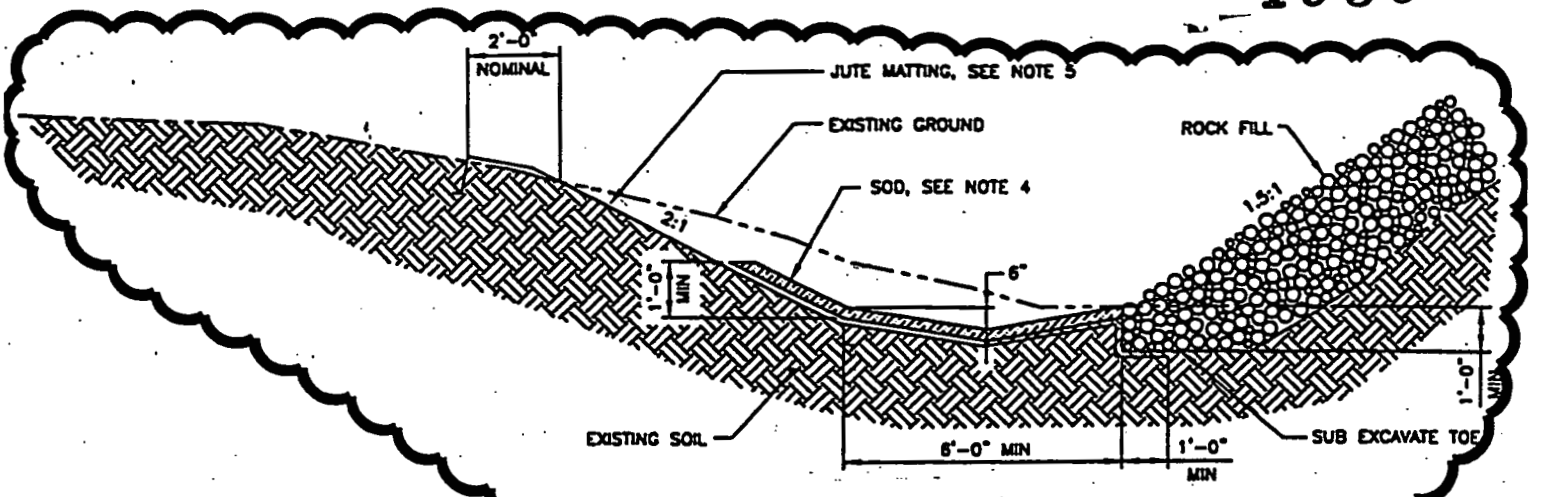

DITCH MODIFICATION DETAIL

SCALE: 1/2"=1'-0"

FROM STA 6+75 TO SA 7+28, SEE NOTE 3

ADD

3. MODIFY EXISTING DRAINAGE DITCH WHERE ROCK SLOPE ENCROCHES FROM APPROXIMATELY STA 6+75 TO STA 7+28. THE FINAL CHANNEL GRADE SHALL MATCH THE EXISTING CHANNEL GRADE.

NEW SPEC.

4. SOD SPECIFICATION NOTE (ENTER SECTION NO.)

5. SEE SPECIFICATION SECTION 02270, EROSION CONTROL BLANKETS.

PSP Variance

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FLUOR DANIEL NORTHWEST, INC.	DESIGN CHANGE NOTICE
DESCRIPTION CHANGE: ADD DITCH MODIFICATION DETAIL. ADD NOTES 3,4, & 5.	BASE DOC. NO. 94X-6100-G-02243 15 SHT/PG. 1 REV. 0

PREPARED BY: RS CHRISTENSEN	DATE: 12/9/98	CADCODE: WIN95:ACD2:14.0:SS		
DISCIPLINE ENGINEER: D MESSINGER	DATE: 12/9/98	DCN-40315-014	PAGE 5	REV. 98
DISCIPLINE: CIVIL	CADFILE: DCN14.DWG			

ATTACHMENT B

Historical Data for the Pilot Plant Ditch

Historical Data Summary for the Pilot Plant Ditch Vicinity South of the Silos Area (Detections Above the Minimum Detectable Concentration)

Sample ID	Location ID	Date Collected	Top Depth (ft.)	Bottom Depth (ft.)	Northing	Easting	Analyte	Result	Valid.	Units	Sample Type	
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Aluminum	17400.0	-	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Aluminum	8690.0	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Aluminum	269.0	J	mg/L	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Aluminum	22500.0	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Aluminum	5450.0	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Aluminum	345.0	J	mg/L	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Ammonia	93.6	-	mg/kg	NORMAL	SEDIMENT
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Antimony	22.6	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Arsenic	20.3	-	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Arsenic	6.8	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Arsenic	39.6	J	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Arsenic	26.0	J	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Barium	72.3	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Barium	49.8	J	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Barium	53.0	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Barium	381.0	-	mg/L	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Barium	116.0	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Barium	204.0	-	mg/L	NORMAL	SOIL
061156	WPA22	21-Apr-91	1.5	2	480066.5	1346835.6	Benzoic acid	59.0	J	ug/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Beryllium	0.5	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Beryllium	0.3	-	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Beryllium	0.7	-	mg/kg	NORMAL	SOIL
061156	WPA22	21-Apr-91	1.5	2	480066.5	1346835.6	bis(2-Ethylhexyl)phthalate	1600.0	-	ug/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Cadmium	5.8	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Calcium	43800.0	-	mg/L	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Calcium	25800.0	-	mg/L	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Calcium	73700.0	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Calcium	1920.0	J	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Calcium	1060.0	J	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Calcium	2590.0	J	mg/kg	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Cesium-137	1.0	J	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Cesium-137	0.5	-	pCi/g	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Cesium-137	0.6	J	pCi/g	NORMAL	SOIL
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Cesium-137	0.6	J	pCi/g	NORMAL	SOIL
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Cesium-137	0.5	-	pCi/g	NORMAL	SOIL

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Historical Data Summary for the Pilot Plant Ditch Vicinity South of the Silos Area (Detections Above the Minimum Detectable Concentration)

Sample ID	Location ID	Date Collected	Top Depth (ft.)	Bottom Depth (ft.)	Northing	Easting	Analyte	Result	Valid.	Units	Sample Type	
SS-23-083	CIS_SYSGEN_151		0	0.5	480121.2	1347722.4	Cesium-137	0.3	NV	pCi/g	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Chloride	40.0	-	mg/kg	NORMAL	SEDIMENT
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Chromium	11.0	-	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Chromium	14.5	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Chromium	22.3	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Chromium	17.3	J	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Cobalt	11.5	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Cobalt	12.4	J	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Cobalt	8.3	-	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Cobalt	8.7	-	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Copper	9.1	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Copper	21.4	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Copper	17.6	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Copper	13.3	-	mg/kg	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Fluoride	5.7	-	mg/kg	NORMAL	SEDIMENT
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Gross Alpha	24.5	NV	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Gross Alpha	15.0	NV	pCi/g	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Gross Alpha	26.0	NV	pCi/g	NORMAL	SEDIMENT
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Gross Beta	26.0	NV	pCi/g	NORMAL	SEDIMENT
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Gross Beta	32.4	NV	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Gross Beta	17.0	NV	pCi/g	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Iron	13900.0	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Iron	22800.0	-	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Iron	16200.0	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Iron	36000.0	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Lead	1.8	-	mg/L	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Lead	15.5	-	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Lead	16.9	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Lead	12.0	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Lead	19.9	J	mg/kg	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Lead	18.4	J	mg/kg	NORMAL	SEDIMENT
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Magnesium	2910.0	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Magnesium	2060.0	J	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Magnesium	1740.0	J	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Magnesium	6940.0	-	mg/L	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Magnesium	25000.0	-	mg/kg	NORMAL	SOIL

Historical Data Summary for the Pilot Plant Ditch Vicinity South of the Silos Area (Detections Above the Minimum Detectable Concentration)

Sample ID	Location ID	Date Collected	Top Depth (ft.)	Bottom Depth (ft.)	Northing	Easting	Analyte	Result	Valid.	Units	Sample Type	
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Magnesium	8170.0	-	mg/L	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Manganese	166.0	-	mg/L	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Manganese	1750.0	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Manganese	2790.0	-	mg/L	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Manganese	402.0	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Manganese	457.0	J	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Manganese	1050.0	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Molybdenum	2.4	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Molybdenum	4.6	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Molybdenum	2.2	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Neptunium-237	0.1	J	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Nickel	16.4	J	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Nickel	22.8	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Nickel	26.8	-	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Nickel	10.7	-	mg/kg	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Nitrate	2.6	J	mg/kg	NORMAL	SEDIMENT
061156	WPA22	21-Apr-91	1.5	2	480066.5	1346835.6	Phenol	230.0	J	ug/kg	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Phosphorus	38.9	-	mg/kg	NORMAL	SEDIMENT
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Plutonium-239/240	0.8	J	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Plutonium-239/240	0.6	J	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Plutonium-241	0.2	-	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Potassium	2090.0	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Potassium	2580.0	-	mg/kg	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Potassium	659.0	J	mg/kg	NORMAL	SEDIMENT
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Potassium	876.0	-	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Potassium	530.0	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Potassium	1670.0	-	mg/L	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Potassium	7210.0	-	mg/L	NORMAL	SOIL
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Radium-226	0.3	-	pCi/g	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Radium-226	1.0	J	pCi/g	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Radium-226	1.1	J	pCi/g	NORMAL	SOIL
SD-40-013	CIS_SYSGEN_146		0	0.42	480108.4	1347052.0	Radium-226	0.7	NV	pCi/g	NORMAL	SEDIMENT
SD-40-011	CIS_SYSGEN_144		0	0.5	480090.4	1347220.0	Radium-226	0.8	NV	pCi/g	NORMAL	SEDIMENT
SS-23-083	CIS_SYSGEN_151		0	0.5	480121.2	1347722.4	Radium-226	0.5	NV	pCi/g	NORMAL	SOIL
SS-23-076	CIS_SYSGEN_152		0	0.5	480123.9	1347622.5	Radium-226	1.1	NV	pCi/g	NORMAL	SOIL
SD-40-010	CIS_SYSGEN_142		0	0.33	480068.4	1347301.0	Radium-226	0.7	NV	pCi/g	NORMAL	SEDIMENT

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Historical Data Summary for the Pilot Plant Ditch Vicinity South of the Silos Area (Detections Above the Minimum Detectable Concentration)

Sample ID	Location ID	Date Collected	Top Depth (ft.)	Bottom Depth (ft.)	Northing	Easting	Analyte	Result	Valid.	Units	Sample Type	
SD-40-014	CIS_SYSGEN_141		0	0.17	480068.4	1346962.0	Radium-226	0.8	NV	pCi/g	NORMAL	SEDIMENT
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Radium-226	1.2	-	pCi/g	NORMAL	SOIL
SD-40-008	CIS_SYSGEN_135		0	0.5	479957.4	1347456.0	Radium-226	0.7	NV	pCi/g	NORMAL	SEDIMENT
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Radium-226	1.1	-	pCi/g	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Radium-226	0.7	J	pCi/g	NORMAL	SEDIMENT
SS-23-070	CIS_SYSGEN_153		0	0.5	480126.7	1347522.5	Radium-226	0.9	NV	pCi/g	NORMAL	SOIL
SD-40-005	CIS_SYSGEN_132		0	0.5	479808.4	1347713.0	Radium-226	0.8	NV	pCi/g	NORMAL	SEDIMENT
SD-40-007	CIS_SYSGEN_134		0	0.5	479913.4	1347543.0	Radium-226	0.6	NV	pCi/g	NORMAL	SEDIMENT
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Radium-226	1.2	-	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Radium-228	1.1	-	pCi/g	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Radium-228	0.9	J	pCi/g	NORMAL	SOIL
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Radium-228	0.9	-	pCi/g	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Radium-228	0.9	J	pCi/g	NORMAL	SEDIMENT
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Radium-228	1.0	-	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Selenium	0.4	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Silicon	54.3	J	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Silicon	86.5	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Silicon	119.0	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Silicon	2380.0	J	mg/L	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Silver	9.0	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Sodium	45.2	-	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Sodium	67.1	-	mg/kg	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Strontium-90	1.1	-	pCi/g	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Strontium-90	0.5	-	pCi/g	NORMAL	SOIL
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Sulfate	418.0	-	mg/kg	NORMAL	SEDIMENT
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Technetium-99	0.2	J	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Thallium	0.3	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Thallium	0.4	-	mg/kg	NORMAL	SOIL
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Thorium-228	1.1	-	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Thorium-228	1.3	J	pCi/g	NORMAL	SOIL
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Thorium-228	0.3	J	pCi/g	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Thorium-228	1.4	-	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Thorium-228	1.1	J	pCi/g	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Thorium-228	0.9	-	pCi/g	NORMAL	SOIL
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Thorium-230	0.4	J	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Thorium-230	2.0	-	pCi/g	NORMAL	SOIL

Historical Data Summary for the Pilot Plant Ditch Vicinity South of the Silos Area (Detections Above the Minimum Detectable Concentration)

Sample ID	Location ID	Date Collected	Top Depth (ft)	Bottom Depth (ft)	Northing	Easting	Analyte	Result	Valid	Units	Sample Type	
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Thorium-230	1.4	-	pCi/g	NORMAL	SOIL
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Thorium-230	2.2	-	pCi/g	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Thorium-230	8.4	-	pCi/g	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Thorium-230	3.2	-	pCi/g	NORMAL	SOIL
SD-40-005	CIS_SYSGEN_132		0	0.5	479808.4	1347713.0	Thorium-232	1.2	NV	pCi/g	NORMAL	SEDIMENT
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Thorium-232	5.2	-	pCi/g	NORMAL	SOIL
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Thorium-232	1.0	-	pCi/g	NORMAL	SOIL
SS-23-070	CIS_SYSGEN_153		0	0.5	480126.7	1347522.5	Thorium-232	1.0	NV	pCi/g	NORMAL	SOIL
SS-23-076	CIS_SYSGEN_152		0	0.5	480123.9	1347622.5	Thorium-232	1.1	NV	pCi/g	NORMAL	SOIL
SS-23-083	CIS_SYSGEN_151		0	0.5	480121.2	1347722.4	Thorium-232	0.7	NV	pCi/g	NORMAL	SOIL
SD-40-006	CIS_SYSGEN_133		0	0.5	479861.4	1347629.0	Thorium-232	1.2	NV	pCi/g	NORMAL	SEDIMENT
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Thorium-232	0.9	-	pCi/g	NORMAL	SOIL
SD-40-013	CIS_SYSGEN_146		0	0.42	480108.4	1347052.0	Thorium-232	0.6	NV	pCi/g	NORMAL	SEDIMENT
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Thorium-232	0.9	-	pCi/g	NORMAL	SOIL
SD-40-009	CIS_SYSGEN_138		0	0.42	479998.4	1347370.0	Thorium-232	0.5	NV	pCi/g	NORMAL	SEDIMENT
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Thorium-232	1.1	-	pCi/g	NORMAL	SOIL
SD-40-008	CIS_SYSGEN_135		0	0.5	479957.4	1347456.0	Thorium-232	0.8	NV	pCi/g	NORMAL	SEDIMENT
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Thorium, Total	9.1	NV	pCi/g	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Thorium, Total	47.4	NV	pCi/g	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Thorium, Total	8.2	NV	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Total Organic Carbon	1410.0	NV	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Total Organic Carbon	15200.0	NV	mg/kg	NORMAL	SOIL
200097335	11369	22-Sep-94	2	2.5	479915.5	1347209.2	Total Organic Carbon	2460.0	J	mg/kg	NORMAL	SOIL
200097334	11369	22-Sep-94	0	0.17	479915.5	1347209.2	Total Organic Carbon	421000.0	J	mg/kg	NORMAL	SOIL
009050	ASIT-010	26-Jun-88	0	0.5	480010.2	1346819.0	Total Organic Nitrogen	794.0	-	mg/kg	NORMAL	SEDIMENT
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium-234	2.1	NV	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium-234	7.1	J	pCi/g	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Uranium-234	21.0	J	pCi/g	NORMAL	SOIL
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium-234	1.1	J	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium-234	10.0	NV	pCi/g	NORMAL	SOIL
200031	11369	11-Jul-94	0	0.5	479915.5	1347209.2	Uranium-234	8.6	NV	pCi/g	ARCHIVE	SOIL
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium-234	6.1	NV	pCi/g	NORMAL	SOIL
200029D	11369	28-Jul-94	0	0.17	479915.5	1347209.2	Uranium-234	4.9	NV	pCi/g	DUPLICATE	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Uranium-234	13.0	-	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium-234	0.9	J	pCi/g	NORMAL	SOIL
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Uranium-234	9.9	-	pCi/g	NORMAL	SOIL

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Historical Data Summary for the Pilot Plant Ditch Vicinity South of the Silos Area (Detections Above the Minimum Detectable Concentration)

Sample ID	Location ID	Date Collected	Top Depth (ft.)	Bottom Depth (ft.)	Northing	Easting	Analyte	Result	Valid.	Units	Sample Type	
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium-234	1.6	NV	pCi/g	NORMAL	SOIL
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Uranium-234	3.9	J	pCi/g	NORMAL	SOIL
200034	11369	11-Jul-94	0.5	1	479915.5	1347209.2	Uranium-234	3.1	NV	pCi/g	ARCHIVE	SOIL
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium-234	8.4	J	pCi/g	NORMAL	SOIL
200034	11369	11-Jul-94	0.5	1	479915.5	1347209.2	Uranium-235	0.2	NV	pCi/g	ARCHIVE	SOIL
200031	11369	11-Jul-94	0	0.5	479915.5	1347209.2	Uranium-235	0.4	NV	pCi/g	ARCHIVE	SOIL
200029D	11369	28-Jul-94	0	0.17	479915.5	1347209.2	Uranium-235	0.2	NV	pCi/g	DUPLICATE	SOIL
200038	11369	11-Jul-94	1.5	2	479915.5	1347209.2	Uranium-235	0.2	NV	pCi/g	ARCHIVE	SOIL
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium-235	0.1	NV	pCi/g	NORMAL	SOIL
200030D	11369	28-Jul-94	2	2.5	479915.5	1347209.2	Uranium-235	0.2	NV	pCi/g	DUPLICATE	SOIL
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium-235	0.3	NV	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium-235	0.1	NV	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium-235	0.4	NV	pCi/g	NORMAL	SOIL
200036	11369	11-Jul-94	1	1.5	479915.5	1347209.2	Uranium-235	0.2	NV	pCi/g	ARCHIVE	SOIL
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium-235/236	0.4	J	pCi/g	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Uranium-235/236	1.4	J	pCi/g	NORMAL	SOIL
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium-235/236	0.1	-	pCi/g	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Uranium-235/236	0.9	-	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium-235/236	0.9	-	pCi/g	NORMAL	SOIL
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium-235/236	0.1	J	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium-236	0.0	NV	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium-236	0.1	NV	pCi/g	NORMAL	SOIL
200029D	11369	28-Jul-94	0	0.17	479915.5	1347209.2	Uranium-236	0.1	NV	pCi/g	DUPLICATE	SOIL
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium-236	0.1	NV	pCi/g	NORMAL	SOIL
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium-236	0.0	NV	pCi/g	NORMAL	SOIL
200031	11369	11-Jul-94	0	0.5	479915.5	1347209.2	Uranium-236	0.1	NV	pCi/g	ARCHIVE	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium-238	1.2	J	pCi/g	NORMAL	SOIL
SD-40-013	CIS_SYSGEN_146	N/A	0	0.42	480108.4	1347052.0	Uranium-238	3.3	NV	pCi/g	NORMAL	SEDIMENT
SD-40-012	CIS_SYSGEN_143	N/A	0	0.5	480090.4	1347130.0	Uranium-238	6.8	NV	pCi/g	NORMAL	SEDIMENT
SD-40-011	CIS_SYSGEN_144	N/A	0	0.5	480090.4	1347220.0	Uranium-238	4.7	NV	pCi/g	NORMAL	SEDIMENT
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium-238	1.6	NV	pCi/g	NORMAL	SOIL
SD-40-013	CIS_SYSGEN_146	N/A	0	0.42	480108.4	1347052.0	Uranium-238	7.6	NV	pCi/g	NORMAL	SEDIMENT
SD-40-014	CIS_SYSGEN_141	N/A	0	0.17	480068.4	1346962.0	Uranium-238	7.4	NV	pCi/g	NORMAL	SEDIMENT
SS-23-083	CIS_SYSGEN_151	N/A	0	0.5	480121.2	1347722.4	Uranium-238	6.4	NV	pCi/g	NORMAL	SOIL
SD-40-010	CIS_SYSGEN_142	N/A	0	0.33	480068.4	1347301.0	Uranium-238	4.8	NV	pCi/g	NORMAL	SEDIMENT
SD-40-015	CIS_SYSGEN_139	N/A	0	0.42	480032.4	1346885.1	Uranium-238	8.1	NV	pCi/g	NORMAL	SEDIMENT

Historical Data Summary for the Pilot Plant Ditch Vicinity South of the Silos Area (Detections Above the Minimum Detectable Concentration)

Sample ID	Location ID	Date Collected	Top Depth (ft.)	Bottom Depth (ft.)	Northing	Easting	Analyte	Result	Valid	Units	Sample Type	
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Uranium-238	13.8	-	pCi/g	NORMAL	SOIL
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium-238	7.3	NV	pCi/g	NORMAL	SOIL
SD-40-009	CIS_SYSGEN_138	N/A	0	0.42	479998.4	1347370.0	Uranium-238	2.9	NV	pCi/g	NORMAL	SEDIMENT
SD-40-016	CIS_SYSGEN_137	N/A	0	0.5	479993.4	1346814.1	Uranium-238	5.6	NV	pCi/g	NORMAL	SEDIMENT
SD-40-008	CIS_SYSGEN_135	N/A	0	0.5	479957.4	1347456.0	Uranium-238	5.2	NV	pCi/g	NORMAL	SEDIMENT
SD-40-007	CIS_SYSGEN_134	N/A	0	0.5	479913.4	1347543.0	Uranium-238	16.3	NV	pCi/g	NORMAL	SEDIMENT
SD-40-006	CIS_SYSGEN_133	N/A	0	0.5	479861.4	1347629.0	Uranium-238	10.5	NV	pCi/g	NORMAL	SEDIMENT
SD-40-005	CIS_SYSGEN_132	N/A	0	0.5	479808.4	1347713.0	Uranium-238	11.5	NV	pCi/g	NORMAL	SEDIMENT
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium-238	8.0	J	pCi/g	NORMAL	SOIL
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Uranium-238	5.0	J	pCi/g	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium-238	2.1	NV	pCi/g	NORMAL	SOIL
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium-238	1.2	J	pCi/g	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Uranium-238	21.1	J	pCi/g	NORMAL	SOIL
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347766.0	Uranium-238	10.2	-	pCi/g	NORMAL	SOIL
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium-238	8.6	J	pCi/g	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium-238	9.5	NV	pCi/g	NORMAL	SOIL
200038	11369	11-Jul-94	1.5	2	479915.5	1347209.2	Uranium-238	3.9	NV	pCi/g	ARCHIVE	SOIL
200031	11369	11-Jul-94	0	0.5	479915.5	1347209.2	Uranium-238	7.4	NV	pCi/g	ARCHIVE	SOIL
200036	11369	11-Jul-94	1	1.5	479915.5	1347209.2	Uranium-238	3.7	NV	pCi/g	ARCHIVE	SOIL
200029D	11369	28-Jul-94	0	0.17	479915.5	1347209.2	Uranium-238	4.3	NV	pCi/g	DUPLICATE	SOIL
200034	11369	11-Jul-94	0.5	1	479915.5	1347209.2	Uranium-238	3.9	NV	pCi/g	ARCHIVE	SOIL
200030D	11369	28-Jul-94	2	2.5	479915.5	1347209.2	Uranium-238	5.0	NV	pCi/g	DUPLICATE	SOIL
200029D	11369	28-Jul-94	0	0.17	479915.5	1347209.2	Uranium, Total	17.2	NV	mg/kg	DUPLICATE	SOIL
200036	11369	11-Jul-94	1	1.5	479915.5	1347209.2	Uranium, Total	11.1	NV	mg/kg	ARCHIVE	SOIL
SD-40-010	CIS_SYSGEN_142	N/A	0	0.33	480068.4	1347301.0	Uranium, Total	14.3	NV	pCi/g	NORMAL	SEDIMENT
200038	11369	11-Jul-94	1.5	2	479915.5	1347209.2	Uranium, Total	11.5	NV	mg/kg	ARCHIVE	SOIL
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium, Total	11.5	-	mg/kg	NORMAL	SOIL
SD-40-011	CIS_SYSGEN_144	N/A	0	0.5	480090.4	1347220.0	Uranium, Total	14.0	NV	pCi/g	NORMAL	SEDIMENT
SD-40-012	CIS_SYSGEN_143	N/A	0	0.5	480090.4	1347130.0	Uranium, Total	20.3	NV	pCi/g	NORMAL	SEDIMENT
SD-40-013	CIS_SYSGEN_146	N/A	0	0.42	480108.4	1347052.0	Uranium, Total	22.7	NV	pCi/g	NORMAL	SEDIMENT
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium, Total	2.2	-	mg/kg	NORMAL	SOIL
005511	ZONE 3-152	26-Sep-88	0	0.5	480009.4	1347766.0	Uranium, Total	40.0	J	mg/kg	NORMAL	SOIL
200029D	11369	28-Jul-94	0	0.17	479915.5	1347209.2	Uranium, Total	19.4	NV	mg/kg	DUPLICATE	SOIL
200034	11369	11-Jul-94	0.5	1	479915.5	1347209.2	Uranium, Total	11.7	NV	mg/kg	ARCHIVE	SOIL
200031	11369	11-Jul-94	0	0.5	479915.5	1347209.2	Uranium, Total	21.9	NV	mg/kg	ARCHIVE	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium, Total	1.0	-	mg/kg	NORMAL	SOIL

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Historical Data Summary for the Pilot Plant Ditch Vicinity South of the Silos Area (Detections Above the Minimum Detectable Concentration)

Sample ID	Location ID	Date Collected	Top Depth (ft.)	Bottom Depth (ft.)	Northing	Easting	Analyte	Result	Valid.	Units	Sample Type	
009050	ASIT-010	28-Jun-88	0	0.5	480010.2	1346819.0	Uranium, Total	30.3	J	mg/kg	NORMAL	SEDIMENT
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium, Total	16.9	-	mg/kg	NORMAL	SOIL
005149	ZONE 3-149	14-Nov-87	0	0.1666667	480009.4	1347516.0	Uranium, Total	63.5	NV	pCi/g	NORMAL	SOIL
005517	ZONE 3-117	26-Sep-88	0	0.5	479759.4	1347768.0	Uranium, Total	43.0	-	mg/kg	NORMAL	SOIL
121100	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Uranium, Total	16.3	-	mg/kg	NORMAL	SOIL
SD-40-014	CIS_SYSGEN_141	N/A	0	0.17	480068.4	1346962.0	Uranium, Total	22.1	NV	pCi/g	NORMAL	SEDIMENT
200030D	11369	28-Jul-94	2	2.5	479915.5	1347209.2	Uranium, Total	15.0	NV	mg/kg	DUPLICATE	SOIL
4S-14	11369	19-Sep-94	2	2.5	479915.5	1347209.2	Uranium, Total	4.7	NV	mg/kg	NORMAL	SOIL
SS-23-070	CIS_SYSGEN_153	N/A	0	0.5	480126.7	1347522.5	Uranium, Total	43.5	NV	mg/kg	NORMAL	SOIL
SD-40-005	CIS_SYSGEN_132	N/A	0	0.5	479808.4	1347713.0	Uranium, Total	34.3	NV	pCi/g	NORMAL	SEDIMENT
SS-23-076	CIS_SYSGEN_152	N/A	0	0.5	480123.9	1347622.5	Uranium, Total	32.2	NV	mg/kg	NORMAL	SOIL
SS-23-083	CIS_SYSGEN_151	N/A	0	0.5	480121.2	1347722.4	Uranium, Total	19.1	NV	mg/kg	NORMAL	SOIL
SD-40-006	CIS_SYSGEN_133	N/A	0	0.5	479861.4	1347629.0	Uranium, Total	31.3	NV	pCi/g	NORMAL	SEDIMENT
91S-14	11369	19-Sep-94	0	0.17	479915.5	1347209.2	Uranium, Total	21.9	NV	mg/kg	NORMAL	SOIL
SD-40-007	CIS_SYSGEN_134	N/A	0	0.5	479913.4	1347543.0	Uranium, Total	48.6	NV	pCi/g	NORMAL	SEDIMENT
200030D	11369	28-Jul-94	2	2.5	479915.5	1347209.2	Uranium, Total	5.1	NV	mg/kg	DUPLICATE	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium, Total	6.3	NV	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Uranium, Total	4.1	NV	mg/kg	NORMAL	SOIL
SD-40-009	CIS_SYSGEN_138	N/A	0	0.42	479998.4	1347370.0	Uranium, Total	8.6	NV	pCi/g	NORMAL	SEDIMENT
SD-40-015	CIS_SYSGEN_139	N/A	0	0.42	480032.4	1346885.1	Uranium, Total	24.1	NV	pCi/g	NORMAL	SEDIMENT
SD-40-016	CIS_SYSGEN_137	N/A	0	0.5	479993.4	1346814.1	Uranium, Total	16.7	NV	pCi/g	NORMAL	SEDIMENT
200030D	11369	28-Jul-94	2	2.5	479915.5	1347209.2	Uranium, Total	9.2	NV	mg/kg	DUPLICATE	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium, Total	28.6	NV	mg/kg	NORMAL	SOIL
SD-40-008	CIS_SYSGEN_135	N/A	0	0.5	479957.4	1347456.0	Uranium, Total	15.5	NV	pCi/g	NORMAL	SEDIMENT
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Uranium, Total	17.9	NV	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Vanadium	37.5	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Vanadium	20.6	-	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Vanadium	34.4	J	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Vanadium	15.5	J	mg/kg	NORMAL	SOIL
200030	11369	11-Jul-94	2	2.5	479915.5	1347209.2	Zinc	55.0	J	mg/kg	NORMAL	SOIL
061150	WPA22	21-Apr-91	0	0.5	480066.5	1346835.6	Zinc	37.4	-	mg/kg	NORMAL	SOIL
121098	500318/SS-33	09-Jul-93	0	0.5	479975.5	1346903.2	Zinc	50.2	J	mg/kg	NORMAL	SOIL
200029	11369	11-Jul-94	0	0.17	479915.5	1347209.2	Zinc	53.1	J	mg/kg	NORMAL	SOIL