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POST-REMEDIAL ACTION REPORT FOR THE CHEMICAL PLANT CONSTRUCTION MATERIALS STAGING AREA (WP-253)

WELDON SPRING SITE REMEDIAL ACTION PROJECT
WELDON SPRING, MISSOURI

JANUARY 1998

REV. 0



U.S. Department of Energy
Oak Ridge Operations Office
Weldon Spring Site Remedial Action Project

Prepared by MK-Ferguson Company and Jacobs Engineering Group

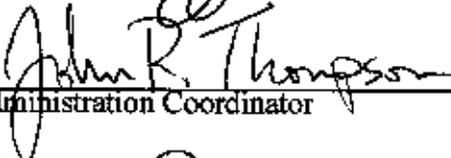
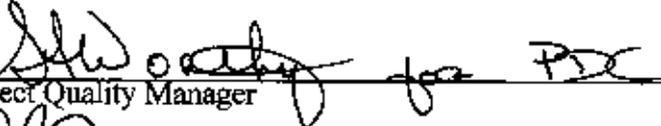


Weldon Spring Site Remedial Action Project
Contract No. DE-AC05-86OR21548

Rev. No. 0

PLAN TITLE: Post-Remdial Action Report For The Chemical Plant Construction Materials
Staging Area (Wp-253)

APPROVALS

	<u>1/26/98</u>
ES&H Department Manager	Date
	<u>1/27/98</u>
Data Administration Coordinator	Date
	<u>1-27-98</u>
Engineering Department Manager	Date
	<u>1/28/98</u>
Project Quality Manager	Date
	<u>1/28/98</u>
Deputy Project Director	Date

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Weldon Spring Site Remedial Action Project

Post-Remedial Action Report for the Chemical Plant Construction Materials Staging Area
(WP-253)

EXECUTIVE SUMMARY

Revision 0

January 1998

Prepared by

MK-FERGUSON COMPANY
and
JACOBS ENGINEERING GROUP
7295 Highway 94 South
St. Charles, Missouri 63304

for the

U.S. DEPARTMENT OF ENERGY
Oak Ridge Operations Office
Under Contract DE-AC05-86OR21548

EXECUTIVE SUMMARY

Contaminated soil removal prior to the building of the Construction Materials Staging Area (CMSA) was conducted as part of WP-253 to remediate areas within the work zone. The CMSA was designed to stockpile clean fill material transported from the borrow area. This fill material would be used in the construction of the on-site disposal cell.

The objective of the remedial action was to ensure that contaminated areas within WP-253 were remediated, meeting the cleanup standards as stated in the *Record of Decision for the Remedial Action at the Chemical Plant Area of the Weldon Spring Site (ROD)* (Ref. 3). Confirmation soil sampling methodology presented in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 5), was developed to ensure the adequate remediation of contaminants of concern (COCs). The specific confirmation details for WP-253 are presented in the *Confirmation Sampling Plan Details for Soils at the Chemical Plant Construction Materials Staging Area Proposed Location* (Ref. 4).

The WP-253 area consisted of two Remedial Units (RU), RU4 and RU5, which are subdivided into Confirmation Units (CU). RU4 is approximately 7.0 acres and consists of 14 CUs. RU5 is approximately 0.15 acres and consists of one CU.

COC lists were developed for each CU using historical background information and characterization soil sample results. COCs identified for RU4 include Radium 226 (Ra-226), Radium-228 (Ra-228), Thorium 230 (Th-230), Uranium 238 (U-238), lead, and trinitrotoluene (TNT) screening. Screening for TNT was requested in many CUs based on past process knowledge, i.e., these CUs were located in areas of a known ordnance works burning ground and rubble demolition area. The only COC identified for RU5 was U-238.

Remedial activities for each CU included the excavation of contaminated soil, radiological walkover surveying, and confirmation soil sampling. Preliminary results were reviewed and the CUs were released for unrestricted use to the subcontractor to begin CMSA construction activities. Each CU, with the exception of a roadway area within CU5, was released for unrestricted use. A partial release for unrestricted use was issued for CU5. Final disposition of CU5 will be addressed in a future work package.

When the final analytical results were received, the data were compared to the preliminary results to verify that the established cleanup standards were achieved. Final analytical results for WP-253 are presented below for both RUs. This table was generated using the final data set compiled from all samples representing soils left in place.

Summary of Analytical Results for RU4 and RU5 in WP-253

CONTAMINANT	NO. OF SAMPLES	CONCENTRATION RANGE	AVERAGE CONCENTRATION	SURFACE ALARA	SURFACE CRITERIA	NO. GREATER THAN ALARA
Lead (mg/kg)	7	24.5-31.7	27.63	240	450	0
Ra-226 (pCi/g)	233	0.84-4.36	1.42	5.0	6.2	0
Ra-228 (pCi/g)	35	<0.98-1.59	1.16	5.0	6.2	0
Ra-226/Ra228	32	1.81-3.94	2.67	5.0	6.2	0
Th-230 (pCi/g)	6	0.91-1.79	1.51	5.0	6.2	0
TNT (mg/kg)	11	<0.2	N/A	14	140	0
U-238 (pCi/g)	194	1.27-109.0	4.15	30	120	20

N/A Average concentration not applicable since all results were less than the detection unit.

Summary of Analytical Results for RU4 and RU5 in WP-253

As indicated above, the average concentration for each COC, was below the corresponding cleanup criteria and the ALARA goal. COC averages were also calculated for each of the fifteen CUs. Although some individual sample concentrations were above the ALARA goal, the average COC concentrations for each of the CUs were below ALARA.

Based on the analytical results presented above, all 15 CUs were either fully or partially released for unrestricted use in accordance with the cleanup standards stated in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 5).

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1. INTRODUCTION

1.1 Purpose

This report details the confirmation field activities and analytical results for the contaminated soil removal located in the WP-253 work zone boundaries at the Weldon Spring Site Remedial Action Project (WSSRAP). Past site activities resulted in contamination of soils within the WP-253 work zone. The construction material staging area (CMSA) was designed for the temporary storage of clean-fill soil transported from the borrow area which will be used for the construction of the on-site disposal cell. Confirmation of soil to the Record of Decision (ROD) cleanup standards was required prior to staging any clean-fill soil at the CMSA.

Soil characterization results from the *Remedial Investigation for the Chemical Plant Area of the Weldon Spring Site* (Ref. 1) and the *Supplementary Soil Sampling Plan* (Ref. 2), along with the pre-excavation walkovers of the WP-253 work zone, determined that two areas within the work zone contained contaminant concentrations that exceeded the as low as reasonably achievable (ALARA) goals established in the *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* (ROD) (Ref. 3). The first area, covering approximately 7 acres, was designated as remedial unit (RU) 4. The second area, covering approximately 0.15 acres, was designated as RU5.

1.2 Scope

This report describes only the remedial activities and confirmation survey/sampling conducted on radiological and chemically contaminated soils within RU4 and RU5. Confirmation walkovers and soil sampling were conducted in accordance with the *Confirmation Sampling Plan Details for Soils at the Chemical Plant Construction Materials Staging Area Proposed Location (WP-253)* (Ref. 4). This plan was developed to ensure that the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 5) objectives were accomplished, and to ensure established remediation requirements of the ROD (Ref. 3) were met.

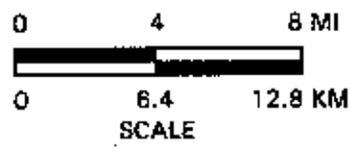
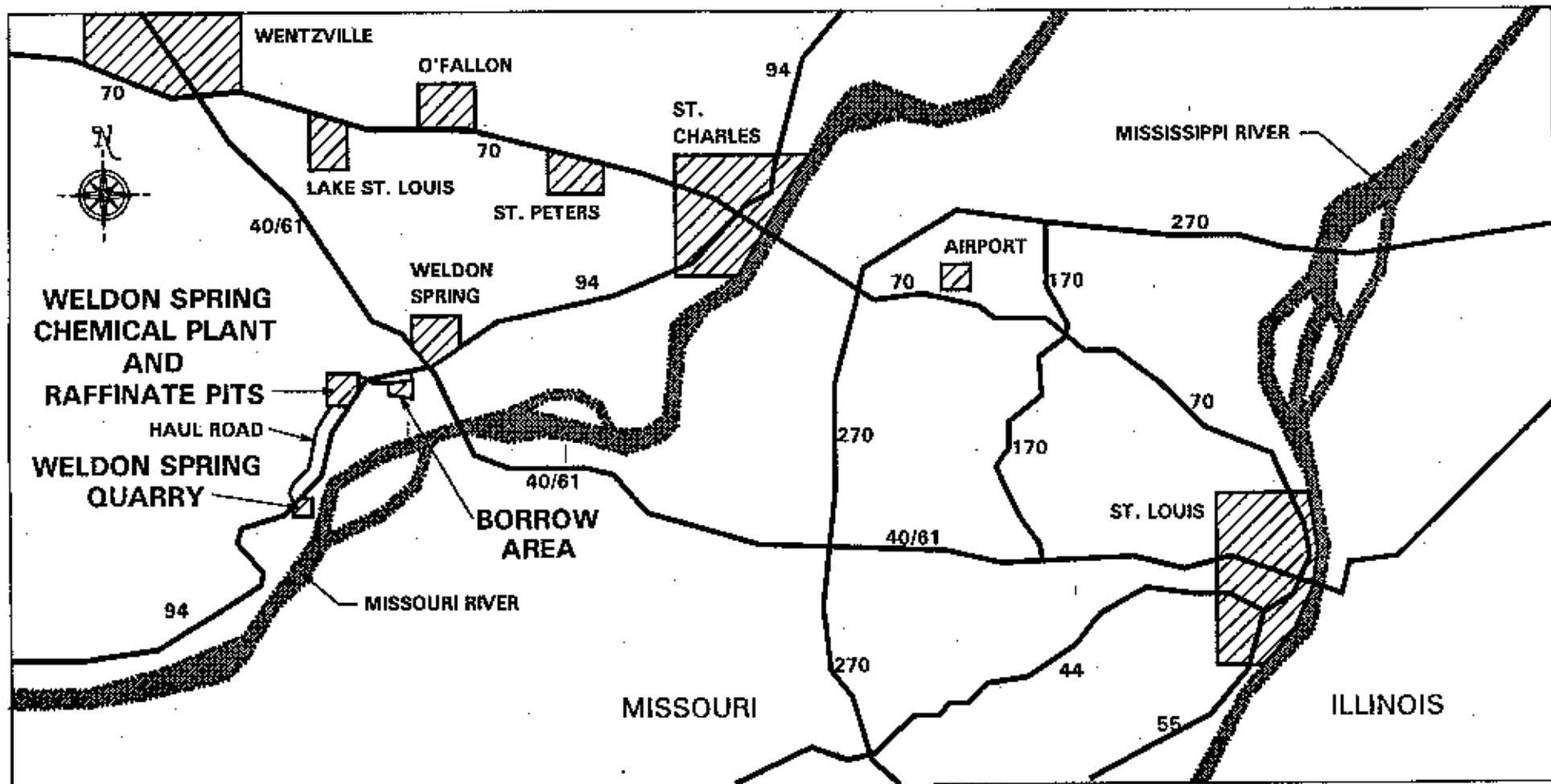
1.3 Site Description and History

The WSSRAP is located in St. Charles County, Missouri, about 48 km (30 mi) from St. Louis, on land formerly used by the U.S. Department of the Army (Army) as a trinitrotoluene (TNT) and dinitrotoluene (DNT) ordnance works (Figure 1-1). The 88-ha (217 acre) chemical plant area is located about 3.2 km (2 mi) southwest of the junction of Missouri State Route 94 and U.S. Route 40/61. The site is accessible from Missouri State Route 94, and is fenced and closed to the public.

The two communities closest to the site, Weldon Spring and Weldon Spring Heights, are located approximately 3.2 km (2 mi) east of the site and have a combined population of 850 persons. Francis Howell High School is located about 1 km (0.6 mi) from the site on the eastern side.

In 1941, the Army acquired 7,000 ha (17,000 acres) of land in St. Charles County, Missouri. The Army constructed an ordnance facility and produced DNT and TNT explosives from 1941 until 1946. By 1949, all but 810 ha (2,000 acres) were transferred to the State of Missouri and the University of Missouri. Most of the remaining land became the chemical plant area of the Weldon Spring site and the adjacent U.S. Army Reserve and National Guard training area.

In May 1955, the U.S. Atomic Energy Commission (AEC) acquired 83 ha (205 acres) to construct a uranium feed materials plant. The AEC operated the uranium feed materials plant from 1957 to 1966 within the WSSRAP area. During its operation, uranium and thorium ore concentrates were processed, which led to on-site contamination of soils. Radioactive and chemical wastes were disposed of at the site during this period. The radioactive contaminants associated with the site are primarily radionuclides of the natural uranium and Th-232 decay series. Chemical contaminants associated with the site are primarily heavy metals, polychlorinated biphenyls (PCBs), and polynuclear aromatic hydrocarbons (PAHs).



LOCATION OF THE WELDON SPRING SITE

FIGURE 1-1

REPORT NO.:	DOE/OR/21548- 714	EXHIBIT NO.:	A/VP/041/0596
ORIGINATOR:	MGL	DRAWN BY:	GLN
		DATE:	5/21/96

The Army reacquired the chemical plant property in 1967 and began decontamination and dismantlement operations in order to construct a herbicide facility. The project was canceled in 1969 before herbicide production was initiated. By 1985, the Army had turned responsibility for the site over to the U.S. Department of Energy (DOE), successor to the AEC. In 1986, the DOE initiated a series of interim response actions to control and mitigate releases to the environment. The chemical plant area was included on the National Priorities List (NPL) in 1989, and a ROD (Ref. 3) was signed in 1993.

The WP-253 area is located within the WSSRAP in the northern portion of the site and contains RU4 and RU5. RU4 was subdivided into 14 confirmation units (CU) that range from 0.44 to 0.58 acres in size. RU5 was 0.15 acres in size and had one confirmation unit, CU19. The layout of these 15 confirmation units within RU4 and RU5 are shown on Figure 1-2. The characterization data and walkover results, along with historical knowledge of the area were used to determine the RU boundaries and the contaminants of concern within each CU.

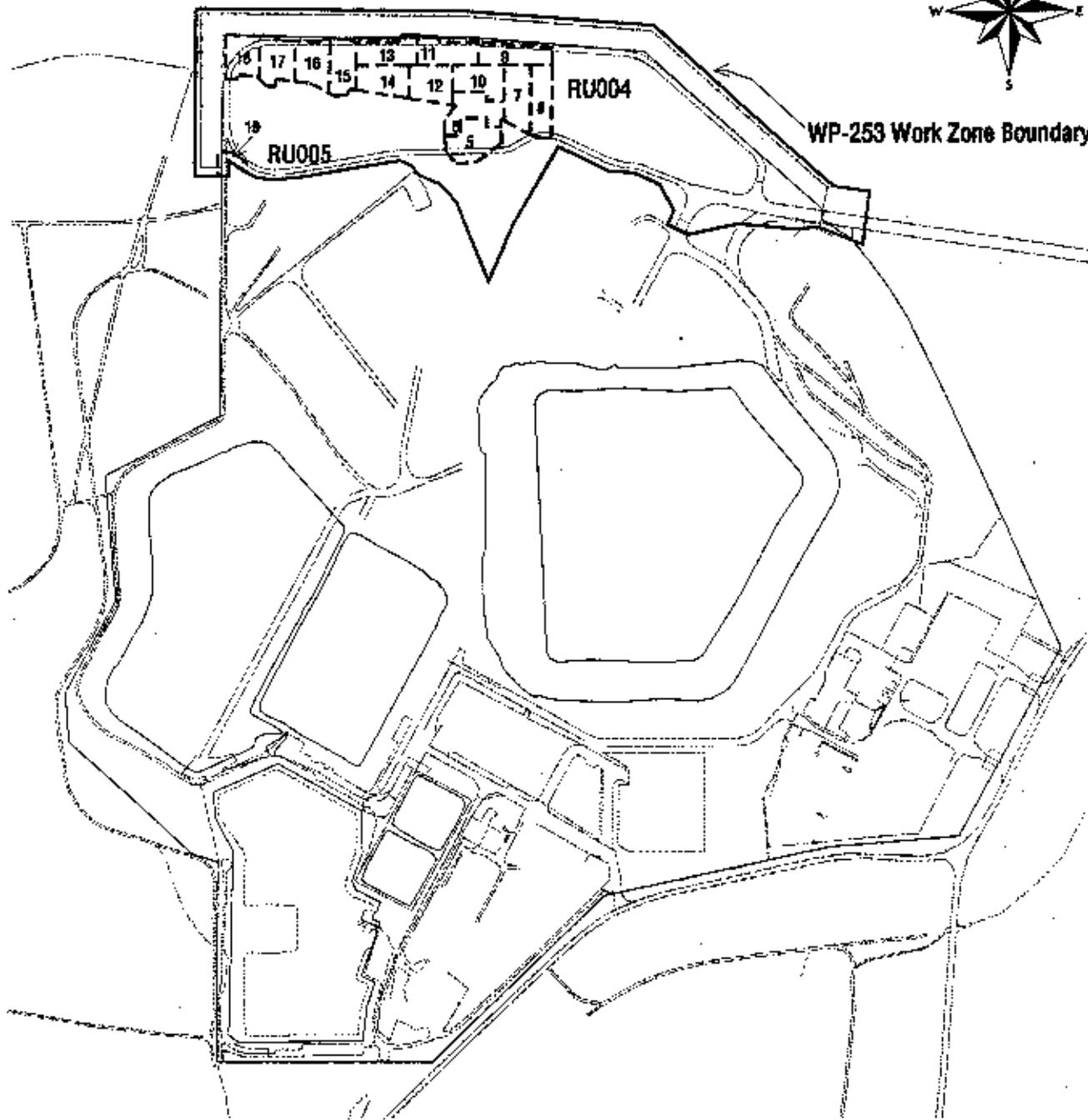
1.4 Remediation and Confirmation Process

This report details the activities conducted to remediate RU4 (CU5 through CU18) and RU5 (CU19). Remediation consisted of excavation of contaminated soils and debris. Following the remediation activities, walkovers were conducted and confirmation samples were collected to ensure that contaminated materials had been remediated.

The entire remediation and confirmation process included: characterization sampling, historical data review, COC identification, confirmation plan development, contaminated soil excavation, radiological walkover surveys, soil sampling, preliminary and final data review, completion of disposition forms, quality assurance/quality control (QA/QC) review, summary of findings and conclusions, and closure report preparation.

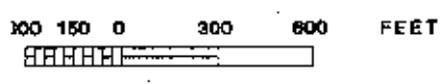
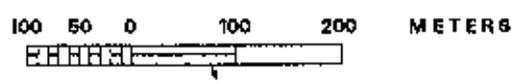
Removal of contaminated soils in the chemical plant construction materials staging area was conducted in accordance with the *Construction Materials Staging Area Subcontract Specification* (Ref. 8). The confirmation sampling process was conducted in accordance with the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 5); to attain cleanup goals set forth in the *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon*

Spring Site (ROD) (Ref. 3). The walkover and sampling details are presented in the *Confirmation Sampling Plan Details for the Soil at the Chemical Plant Construction Materials Staging Area Proposed Location (WP-253) (Ref. 4).* Sections 3, 4, and 5 describe in detail the remediation and confirmation processes conducted at RU4 and RU5 within the WP-253 area.



LEGEND

-  WP 253 Confirmation Units
-  WP 253 Boundary



Location of Remedial Units RU004 and RU005			
Figure: 1-2			
REPORT NO.:	DOE/OR/21548-714	EXHIBIT NO.:	A/CP/040/0596
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		DATE:	09/26/97

2. PRE-REMEDATION ACTIVITIES

2.1 Review of Characterization Data and Historical Information

Contaminants of concern (COC) for confirmation were determined by reviewing historical information and soil characterization data. Review of historical information revealed that portions of this work zone had been used as an ordnance works burning ground and demolition area. Although characterization data did not show any TNT above the cleanup standards, soil samples were analyzed for TNT using on-site screening methods at many locations. This information, along with the soil characterization data, was used to further define COCs selected for each CU. U-238, Ra-226, Ra-228, Th-230, and lead were selected based upon characterization results.

2.2 Contaminants of Concern

Radiological COCs identified for RU4 include: Ra-226, Ra-228, Th-230, and U-238. Lead and TNT were the two chemical COCs identified for RU4. Only one COC, U-238, was identified for RU5.

2.3 Data Quality Objectives

Data Quality Objectives (DQOs) were identified to specify and ensure that quality data would be sufficient to support the decision making process throughout remedial activities, including the confirmation process. Confirmation DQOs were developed for sampling and analyzing soils during remediation and for the subsequent data evaluation. The DQOs were designed to make statistically defensible decisions regarding attainment of cleanup standards. Sampling and analytical programs for the WP-253 area were designed in accordance to DQOs stated in the *Chemical Plant Area Cleanup Attainment Confirmation Plan (Attainment Plan)* (Ref. 5).

2.4 Remediation Guidelines

Remedial work was conducted in the areas containing contaminated soils. Remediation activities for RU4 and RU5 were conducted in accordance with the guidelines stated in the *Construction Materials Staging Area Specifications (WP-253)* (Ref. 8). Guidelines were developed for confirmation soil sampling, data evaluation, and Quality Assurance/Quality Control (QA/QC) measures. Remediation guidelines were designed to meet the applicable soils cleanup standards stated in the ROD (Ref. 3) and the *Attainment Plan* (Ref. 5).

2.5 Cleanup Standards

The objective of the DOE ALARA process is to reduce exposures and risks associated with residual contamination (Ref. 2). The *Chemical Plant Area Record of Decision* (ROD) (Ref. 3) established two different sets of cleanup standards: risk-based cleanup criteria and as low as reasonably achievable (ALARA) goals. Remedial activities for WP-253 were designed to remove soil where the COC concentration is present above ALARA goals. Table 2-1 summarizes the cleanup criteria and ALARA goals established in the ROD that are applicable for COCs in the WP-253 area.

Throughout remedial activities at RU4 and RU5, COC concentrations were evaluated with the ALARA process. The two sets of cleanup standards (ALARA goals and cleanup criteria) were applied at two different stages of the cleanup confirmation process discussed below in Section 2.6.

Table 2-1 ROD Cleanup Standards for COCs Within WP-253 Remedial Units

RADIONUCLIDE (Pci/g)	SURFACE ^(a)		SUBSURFACE ^(a)	
	ALARA	CRITERIA	ALARA	CRITERIA
Ra-226 ^(a,b)	5.0	6.2	5.0	16.2
Ra-228 ^(a,b)	5.0	6.2	5.0	16.2
Th-230 ^(a)	5.0	6.2	5.0	16.2
Uranium-238	30.0	120	30	120
CHEMICAL (mg/kg)				
Lead	240	450	450	4,500
TNT	14	140	140	1,400

- (a) If both Th-230 and Ra-226, or both Th-232 and Ra-228, are present and not in secular equilibrium, the cleanup criterion applies for the radionuclide with the higher concentration.
- (b) At locations where both Ra-226 and Ra-228 are present, the cleanup criterion of 6.2 pCi/g (including background) in the top 15 cm (6 in.) of soil, and 16.2 pCi/g (including background) in each 15-cm (6-in.) layer of soil more than 15 cm (6 in.) below the surface, applies to the sum of the concentrations of these two radionuclides.
- (c) Values listed for surface soils apply to contamination within the upper 15 cm (6 in.) of the soil column.
- (d) Values for subsurface apply to contamination in soils below 15 cm (6 in.) unless otherwise noted.

Source: Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site (Ref. 1)

2.6 Cleanup Confirmation Process

The cleanup confirmation process is used to determine, under the remedial guidelines, if remediation activities have achieved the cleanup standards. Figure 2-1 shows the cleanup confirmation process for remedial activities conducted at the WP-253 area. The decision making process was developed to specify how the data will be applied and evaluated within the cleanup confirmation process. To facilitate this data evaluation, the decision making process was implemented at two stages of the confirmation process.

In the first stage, the decision making process was applied to each individual sample result within a given CU. There are three steps associated with this decision. These steps are detailed below.

Step 1: If a given COC concentration exceeded three times the cleanup criteria, the area was further remediated and resampled. If the COC concentration was above the cleanup criteria, but below three times the cleanup criteria, the COC concentration was applied to Step 2 or Step 3, based upon the given size of the hot spot. If the COC concentration was below the cleanup criteria, the soil was left in place and no additional remediation was conducted.

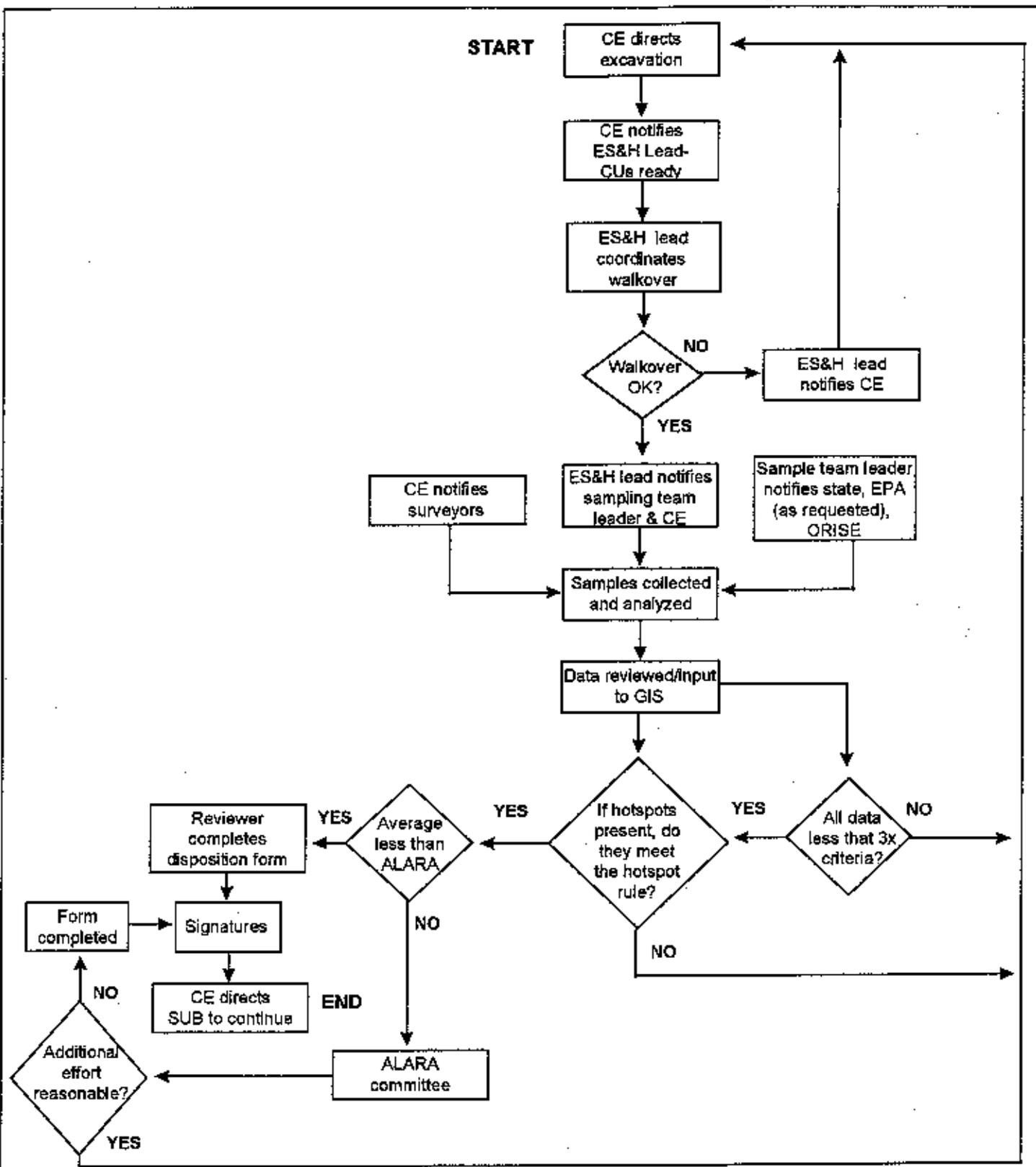
Step 2: If a given COC concentration exceeded the cleanup criteria and the aerial extent was greater than 25 m² in size, the area was further remediated and resampled.

Step 3: If a given COC concentration (in a hot spot area less than 25 m² in size) was between the cleanup criteria and three times the cleanup criteria, the following Hot Spot Formula was used to determine the acceptable concentration for the COC.

$$\text{Maximum Concentration} = (\text{cleanup criteria}) \times (100/A)^{1/2}$$

Where A is the size of "hot spot" in square meters (m²).

In the second stage, the decision making process was applied to a specific COC average over an entire CU. If an average concentration of a COC within a CU was greater than ALARA, the issue was presented to the ALARA committee for a decision. Factors in the decision ruling included the percentage of sample results that were less than, or greater than, ALARA. Based on the percentage of sample results above the ALARA goal, the ALARA committee determined whether additional remediation was required. As stated in the ROD, contaminant levels remaining in soil across the site after remediation are expected to range between the cleanup criteria and the ALARA goals, reaching the goals in most cases.



CLEANUP CONFIRMATION PROCESS		
FIGURE 2-1		
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3. REMEDIAL PROGRAM ACTIVITIES

3.1 Excavation Activities

Contaminated soils and other debris from the construction material staging area (CMSA) were first excavated to designed depths as detailed in the specifications (Ref. 8). Excavations in RU4 ranged from 6 in. to 2 ft in depth. Excavation depths in RU5 ranged from 2 ft to 5 ft. After the initial excavations were completed, radiological walkover surveys were conducted to evaluate the need for additional excavation. Walkover surveys were conducted using a 2 in. x 2 in. sodium iodide (NaI) scintillator detector. Once the radiological walkover surveys indicated no additional excavation was needed (e.g., no radioactivity levels exceeding 1.5 times the background level), the areas within RU4 and RU5 were released for confirmation sampling. Section 4 details the process and results of the walkover surveys.

3.2 Contaminated Waste Management

All materials excavated during remediation activities and prior to confirmation were contaminated. These contaminated soils removed during remediation activities were transported and staged at the Ash Pond Storage Area located in the northwest portion of the Weldon Spring Site Remedial Action Project (WSSRAP). Contaminated materials will eventually be stored on site at the disposal facility in accordance with the Record of Decision (ROD) (Ref. 3).

4. REMEDIAL ACTIVITIES

4.1 Field Activities

Field activities completed during remedial activities, such as walkover surveys and soil sampling, were conducted in accordance with procedures as stated in the *Confirmation Sampling Plan Details for Soils at the Chemical Plant Construction Materials Staging Area Proposed Location WP-253* (Ref. 4). All remedial action surveys and sampling were conducted and documented in accordance with Weldon Spring Site Remedial Action Project (WSSRAP) Environmental Safety and Health (ES&H) procedures. A listing of applicable procedures is provided in Section 8.

4.1.1 Walkover Surveys

Radiological walkover surveys were conducted once excavation activities were completed to determine if confirmation sample collection could begin. Walkover surveys were conducted using a 2 in. x 2 in. NaI scintillation detector. Radioactivity background readings were collected each day at the Weldon Spring site flagpole. The background reading was recorded in counts per minute (CPM) and used for walkover surveys conducted that day. Each confirmation unit (CU) was surveyed using radioactivity levels above 1.5 times the background concentrations (of gamma emitting radioactivity) as a general guideline. Any areas above 1.5 times background were evaluated.

4.1.2 Soil Sampling

Once the walkovers were completed, soil sampling was conducted at each CU as part of the confirmation process. The sampling locations for each CU are shown on the figures in Appendix A. Analytical suites for each CU were dependent upon the contaminants of concern

(COC) list developed from historical information and characterization data, as discussed in Section 2.

The survey and sample results indicated contaminants in the excavated area were below cleanup standards and the averages were less than ALARA, therefore no further remediation was conducted. Disposition Forms were completed following the receipt of preliminary analytical data for each CU. The disposition forms for each CU are presented in Appendix B.

4.1.3 Deviations from the Sampling Plan

There was one deviation from the sampling plan. At sampling location SC-01908-C, located within CU19, bedrock was discovered at 3 ft below grade, which was less than the planned excavation depth. Because bedrock was encountered, a soil sample was not collected at this location. The walkover survey readings for the bedrock locations were less than 1.5 times the background level.

4.2 Laboratory Activities

All radiological analyses, except Th-230, were conducted at the on-site laboratory. Trinitrotoluene (TNT) screening analyses were conducted on site using an immunoassay method. Confirmation TNT analyses were conducted by an off-site laboratory for all samples in which the screening data indicated detection of TNT. Laboratory analyses for lead and Th-230 were conducted by off-site laboratories.

Subcontracted off-site laboratories that performed analyses for the WP-253 remediation activities used Contract Laboratory Program (CLP) methodologies. Laboratory activities were conducted in accordance with the laboratory's *Quality Assurance Project Plan* and *Environmental Quality Assurance Project Plan* (Ref. 6). Radiological and chemical analytical data were subject to data evaluation and validation upon receipt from the laboratory. TNT screening data were not validated.

4.3 Verification Activities

The Environmental Survey and Site Assessment Program of the Oak Ridge Institute for Science and Education (ORISE) conducted verification surveys at the WSSRAP from September through December 1995. ORISE performed verification surveys of each CU as well as within the unaffected areas. These unaffected areas were those within the WP-253 work zone boundaries where contamination was either not identified during site characterization or levels were below cleanup standards.

Independent verification was performed in order to provide independent survey and analytical data for use by the U.S. Department of Energy's Headquarters Office in determining the adequacy and accuracy of the Project Management Contractor's (PMC's) conclusions as to the remediated areas status. This audit included walkover radiological surveys and independent collection and analysis of soil samples to verify proper disposition of the CUs. The surveys and sampling were conducted in accordance with ORISE's *Final Verification Survey Plan for the Chemical Plant Area* (Ref. 7). A final verification letter will be prepared that addresses RU4 and RU5 when the ORISE receives the PMC's *Post Remedial Action Report for WP-253*.

5. CONFIRMATION UNIT RESULTS SUMMARY

This section summarizes the confirmation unit (CU) analytical results for the 15 CUs that were located within RU4 and RU5. These CUs were confirmed during the fall and winter of 1995. A total of 325 locations were sampled, as detailed in the sampling plan. Figures showing the sampling locations within each CU are located in Appendix A. All contaminants of concern (COC) preliminary concentrations were below the respective as low as reasonably achievable (ALARA) goals with the exception of 20 U-238 results, although none exceeded criteria. The average U-238 concentration for each CU remained below the ALARA goals.

After the preliminary data were reviewed, disposition forms were completed and signed. Based on the preliminary confirmation data, all CUs except CU5 were fully released for unrestricted use. A partial release for unrestricted use was issued for all areas in CU5 except for a roadway that was still operational. Remediation and confirmation of the roadway will be conducted in the future.

Note that the preliminary data are the initial results available immediately from the laboratory and are subject to change. Final data are the fully reviewed results of the analyses performed. For chemical analyses and Th-230, the preliminary data and the final data usually remain the same. Radiological data, such as Ra-226, usually change because analytical methods for some parameters require additional time following homogenization for the regrowth of daughter products.

Upon receipt of the data packages, the final data were reviewed and compared to the preliminary data. The final analytical results agree with the preliminary results and indicate that the remedial activities have been completed. The final results meet the cleanup standards as detailed in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 5) for all CUs in RU4 and RU5. A summary of the final results for each CU is presented in Table 5-1. This table provides the number of samples, range, and average for the COCs associated with each CU. A complete list of the final analytical data for RU4 and RU5 is provided in Appendix C.

Table 5-1 Remediation Units 4 and 5 Analytical Results Summary

RU #	CU #	GOC	Final Results					
			No. of Samples	Range	Average	Surface ALARA	Surface Criteria	No. of Samples > ALARA ^(a,b)
4	05	Lead (mg/kg)	7	24.5-31.7	27.63	240	450	0
		TNT (mg/kg)*	27	all <0.5	N/A	14	140	0
		Ra-226 (pCi/g)	27	1.20-2.36	1.58	5.0	6.5	0
4	06	TNT (mg/kg)*	31	all <0.5	N/A	14	140	0
4	06	Ra-226 (pCi/g)	31	1.11-2.36	1.51	5.0	6.2	0
		Ra-228 (pCi/g)	4	1.03-1.31	1.17	5.0	6.2	0
		U-238 (pCi/g)	1	<4.21	N/A	30	120	0
4	07	Ra-226 (pCi/g)	30	1.14-2.26	1.39	5.0	6.2	0
4	08	Ra-226 (pCi/g)	28	1.03-1.68	1.37	5.0	6.2	0
4	09	TNT (mg/kg)*	12	all <0.5	N/A	14	140	0
		Ra-226 (pCi/g)	28	0.84-4.36	1.33	5.0	6.2	0
		U-238 (pCi/g)	3	(2.04)<4.42	1.92	30	120	0
4	10	TNT (mg/kg)*	32	all <0.5	N/A	14	140	0
		Ra-226 (pCi/g)	31	1.11 - 2.72	1.44	5.0	6.2	0
		U-238 (pCi/g)	7	(2.04) - <4.47	1.89	30	120	0
4	11	TNT (mg/kg)*	29	all <0.5	N/A	14	140	0
		Ra-226 (pCi/g)	28	1.09 - 1.63	1.36	5.0	6.2	0
		U-238 (mg/kg)	28	(1.72) - 54.2	4.90	30	120	1
4	12	TNT (mg/kg)*	31	all <0.5	N/A	14	140	0
		Ra-226 (pCi/g)	30	1.16 - 2.89	1.46	5.0	6.2	0
		U-238 (pCi/g)	30	(1.96) - 54.2	5.17	30	120	1
4	13	TNT (mg/kg)*	28	all <0.5	N/A	14	140	0
		Ra-226 (pCi/g)	8	1.24 - 1.75	1.45	5.0	6.2	0
		Ra-228 (pCi/g)	3	1.10 - 1.37	1.26	5.0	6.2	0
		U-238 (pCi/g)	28	1.28 - 83.4	12.49	30	120	3
4	14	TNT (mg/kg)*	34	0.09 - <0.5	N/A	14	140	0
		TNT (mg/kg)**	6	all <0.10	N/A	14	140	0
		Ra-226 (pCi/g)	12	1.32 - 2.40	1.67	5.0	6.2	0
		Ra-228 (pCi/g)	3	1.10 - 1.54	1.30	5.0	6.2	0
		Th-230 (pCi/g)	6	0.91 - 1.78	1.51	5.0	6.2	0
		U-238 (pCi/g)	34	2.11 - 109	16.95	30	120	4
4	15	TNT (mg/kg)*	26	0.07 - <0.5	N/A	14	140	0
		TNT (mg/kg)**	3	all <0.10	N/A	14	140	0
		Ra-226 (pCi/g)	26	1.14 - 2.40	1.49	5.0	6.2	0

RU #	CU #	COC	Final Results					
			No. of Samples	Range	Average	Surface ALARA	Surface Criteria	No. of Samples > ALARA ^(a,b)
		Ra-228 (pCi/g)	26	0.89 - 1.59	1.21	5.0	6.2	0
		U-238 (pCi/g)	26	(1.63) - 109	23.99	30	120	8
4	16	TNT (mg/kg)*	28	0.09 - <0.5	N/A	14	140	0
		TNT (mg/kg)	1	<0.10	N/A	14	140	0
		Ra-228 (pCi/g)	1	0.88	0.88	5.0	6.2	0
		U-238 (pCi/g)	28	(1.83) - 58.7	7.57	30	120	1
4	17	TNT (mg/kg)*	27	all <0.5	N/A	14	140	0
		Ra-226 (pCi/g)	5	1.26 - 1.87	1.42	5.0	6.2	0
4	17	Ra-228 (pCi/g)	2	1.13 - 1.36	1.25	5.0	6.2	0
		U-238 (pCi/g)	27	(1.52) - 46.0	7.80	30	120	2
4	18	TNT (mg/kg)*	17	0.07 - <0.5	N/A	14	140	0
		TNT (mg/kg)**	1	<0.10	N/A	14	140	0
		Ra-226 (pCi/g)	25	1.17 - 1.73	1.39	5.0	6.2	0
		Ra-228 (pCi/g)	2	0.85 - 1.14	1.00	5.0	6.2	0
		U-238 (pCi/g)	25	2.73 - 13.3	3.44	30	120	0
5	19	U-238 (pCi/g)	8	<2.53 - <4.00	N/A	30	120	0

* On-site field screening data collected using an immunoassay technique, therefore no average calculated.

** Off-site analyses.

- a) If both Th-230 and Ra-226, or both Th-232 and Ra-228, are present and not in secular equilibrium, the cleanup criterion applies for the radionuclide with the higher concentration.
- b) At locations where both Ra-226 and Ra-228 are present, the cleanup criterion of 6.2 pCi/g (including background) in the top 15 cm (6in.) of soil, and 16.2 pCi/g (including background) in each 15-cm (6in.) layer of soil more than 15 cm (6in.) below the surface, applies to the sum of the concentrations of these two radionuclides.

6. DATA EVALUATION

Data evaluation was performed on WP-253 analytical data to determine whether data quality objectives developed for the Weldon Spring Site Remedial Action Project (WSSRAP) were met and to ensure overall data quality results generated from RU4 and RU5 remedial activities are presented. Data evaluation was performed in accordance with the *Environmental Quality Assurance Project Plan* (Ref. 6). The data evaluation process included data verification, data review, data validation, and data management and reduction activities as stated in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 5).

Although the data evaluation process is detailed below, these activities indicate data generated at RU4 and RU5 meet DQRs specified in the *Environmental Quality Assurance Project Plan* (Ref. 6), and the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 5).

6.1 Data Verification

Data verification was conducted to ensure that documentation and data were reported in compliance with the established site requirements and standard operating procedures (SOPs). Data verification also ensured that all analyses were performed as listed on the Chain-of-Custody Form. All analytical results received from the laboratory were reviewed to verify that samples were properly handled according to WSSRAP protocol. The following factors were evaluated: sample identification, Chain of Custody, holding times, sample preservation requirements, sample analysis request forms, data reviews, laboratory tracking, data reporting requirements, and the database transfer activities.

6.2 Data Review

The data package was reviewed by the data requester. Data review was conducted to ensure the data was properly identified, analyzed, reported, and met Data Quality Requirements (DQRs). During this review, the preliminary results were also compared to the final analytical results. Since the preliminary Ra-226 results were based upon an estimated value, it was

necessary to compare those with the final results to ensure there were no concentration changes which would change the original disposition of each CU. The preliminary Ra-226 values were estimated using the method described in an inter-office memorandum, dated November 17, 1995, titled "Ra-226 Determination for Site Contamination Samples". A copy of this memorandum is presented in Appendix D. In each case, the final data confirmed that the Ra-226 data satisfied the disposition criteria.

The results of the quality control samples were compared to DQRs goals to assess the precision, accuracy, and completeness of the data and to identify samples that may require further validation activities. This comparison was conducted in addition to the 10% data validation activities and was inclusive of all analytical results from quality control samples generated from RU4 and RU5 activities. The tables including the comparison of quality assurance and quality control (QA/QC) samples to the parent sample are presented in Appendix F.

Specific DQRs for the WSSRAP were developed according to U. S. Environmental Protection Agency (EPA) guidance. These site-specific DQRs include precision, accuracy, and completeness goals for data collection activities. Each of these requirements is discussed in the following paragraphs.

Precision

Precision is a measurement, expressed as a percentage, that represents the repeatability of the result by the analytical system. This measurement is based on the relative percent differences (RPDs) between laboratory duplicates and their respective parent analysis. The level of precision increases as the RPD value approaches 0%. The RPD is calculated using the following formula:

$$RPD = |PA - DU| / ((PA + DU) / 2) * 100$$

where PA = respective parent analysis

DU = duplicate analysis

Similarly, RPD is calculated to evaluate the precision of secondary duplicate to parent, field replicate to parent, and matrix spike duplicate to matrix spike.

As the analytical concentration approaches the detection limit for a given parameter, the confidence levels decreases. For this reason, the RPD is generally only calculated for those analyses where both the parent and comparison sample analysis are greater than five times the detection limit.

Due to the chemical properties of radionuclides, the calculated RPD has a greater variance compared to that of non-radionuclides. To assist in evaluating the precision in radionuclides, the duplicate error ratio (DER) is also calculated. The level of precision increases as the DER value approaches zero. The DER is calculated using the following formula:

$$DER = |PA-DU|/(2sp_p+2sd_d)$$

where PA = Respective Parent Analysis

DU = Duplicate Analysis

2 sp_p = Two Times Parent Analysis Uncertainty (2 sigma)

2 sd_d = Two Times Duplicate Analysis Uncertainty (2 sigma)

The DQR goals for analytical data are presented in Table 6-1. Analytical accuracy and precision goals are presented by analytical parameter both soil and water.

Table 6-1 Data Quality Requirement Goals for Analytical Data

Category	Analytical Parameter	Precision* (soil) RPD (%)	Precision* (soil) DER	Accuracy (soil) REC (%)	Precision* (water) RPD (%)	Precision* (water) DER	Accuracy (water) REC (%)
Radiological	U-238, Th-230, RA-226, Ra-228	<=50	1.00	± 30	<=20	1.00	± 25
Metals	All	<=35	N/A	± 25	<=20	N/A	± 25
Nitroaromatics	All	<=35	N/A	± 25	<=20	N/A	± 25

Not valid for values <=5 Detection Limit

Matrix duplicate, secondary duplicate, and field replicate samples were collected to assess precision of the sampling efforts. The results of all matrix duplicate, secondary duplicate, and replicate samples are summarized in Tables 6-2, 6-3, and 6-4. The number of samples collected, number of detects, relative percent difference (RPD) between the parent sample and the duplicate

or replicate, and the duplicate error ratio (DER) for all duplicate and parent sample pairs for each COC are listed in these tables. The data quality requirement precision goals for the samples are an RPD of no more than 50% and a DER <1.0.

Matrix duplicate samples were collected for Ra-226, Ra-228, and U-238. In all cases, the RPD was below 50% for each COC. The DER of one sample pair each from radium-226 and radium-228 was above 1.0. The concentrations reported for 20 parent and matrix duplicate samples were below the laboratory detection limit for U-238. The DER was below 1.0 for all remaining sample pairs in which the U-238 concentration was reported above the laboratory detection limit.

Secondary duplicate samples were only collected for 2,4,6-trinitrotoluene (TNT). Field immunoassay test kits were used on all parent samples analyzed for TNT. All duplicate samples and parent samples were reported as having concentrations below the method detection limit. Therefore, analysis of precision for these sample pairs was not possible.

Parameter	Number of		RPD		DER		Evaluation and Summary of Detects
	Samples	Detects	Range	Average	Range	Average	
TNT	0	N/A	N/A	N/A	N/A	N/A	0 PA or DU ≤ 5xDL, or = ND 0 PA & DU > 5xDL, RPD ≤ 35% 0 PA & DU > 5xDL, RPD > 35%
Lead	0	N/A	N/A	N/A	N/A	N/A	0 PA or DU ≤ 5xDL, or = ND 0 PA & DU > 5xDL, RPD ≤ 35% 0 PA & DU > 5xDL, RPD > 35%

Table 6-2 Comparison of Data Quality Requirement Goals with Matrix Duplicate Samples (Continued)

Parameter	Number of		RPD		DER		Evaluation and Summary of Detects
	Samples	Detects	Range	Average	Range	Average	
Ra-226	26	26	0.8 - 21.4%	7.7%	0.0 - 1.4	0.5	0 PA or DU \leq 5xDL, or =ND 12 PA & DU > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & DU > 5xDL, RPD > 50%, DER \leq 1 1 PA & DU > 5xDL, RPD \leq 50%, DER > 1 0 PA & DU > 5xDL, RPD > 50%, DER > 1
Ra-228	6	6	10.7 - 25.5%	18.8%	0.4 - 1.2	0.7	0 PA or DU \leq 5xDL, or =ND 2 PA & DU > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & DU > 5xDL, RPD > 50%, DER \leq 1 1 PA & DU > 5xDL, RPD \leq 50%, DER > 1 0 PA & DU > 5xDL, RPD > 50%, DER > 1
Th-230	0	N/A	N/A	N/A	N/A	N/A	0 PA or DU \leq 5xDL, or =ND 0 PA & DU > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & DU > 5xDL, RPD > 50%, DER \leq 1 0 PA & DU > 5xDL, RPD \leq 50%, DER > 1 0 PA & DU > 5xDL, RPD > 50%, DER > 1

**Table 6-2 Comparison of Data Quality Requirement Goals with Matrix Duplicate Samples
 (Continued)**

Parameter	Number of		RPD		DER		Evaluation and Summary of Detects
	Samples	Detects	Range	Average	Range	Average	
U-238	30	10	1.4-25.2%	12.6%	0.1-0.7	0.4	11 PA or DU \leq 5xDL, or = ND 4 PA & DU > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & DU > 5xDL, RPD > 50%, DER \leq 1 0 PA & DU > 5xDL, RPD \leq 50%, DER > 1 0 PA & DU > 5xDL, RPD > 50%, DER > 1

PA = Respective Parent Sample
 DU = Matrix Duplicate Sample
 DL = Detection Limit

DER = Duplicate Error Ratio
 RPD = Relative Percent Difference
 N/A = Not Applicable

Parameter	Number of		RPD		DER		Evaluation and Summary of Detects
	Samples	Detects	Range	Average	Range	Average	
TNT	24	N/A	N/A*	N/A*	N/A	N/A	12 PA or SD \leq 5xDL, or = ND 0 PA & SD > 5xDL, RPD \leq 35% 0 PA & SD > 5xDL, RPD > 35%
Lead	0	N/A	N/A	N/A	N/A	N/A	0 PA or SD \leq 5xDL, or = ND 0 PA & SD > 5xDL, RPD \leq 35% 0 PA & SD > 5xDL, RPD > 35%
Ra-226	0	N/A	N/A	N/A	N/A	N/A	0 PA or SU \leq 5xDL, or =ND 0 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & SD > 5xDL, RPD > 50%, DER \leq 1 0 PA & SD > 5xDL, RPD \leq 50%, DER > 1 0 PA & SD > 5xDL, RPD > 50%, DER > 1
Ra-228	0	N/A	N/A	N/A	N/A	N/A	0 PA or SD \leq 5xDL, or =ND 0 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & SD > 5xDL, RPD > 50%, DER \leq 1 0 PA & SD > 5xDL, RPD \leq 50%, DER > 1 0 PA & SD > 5xDL, RPD > 50%, DER > 1

Table 6-3 Comparison of Data Quality Requirement Goals with Secondary Duplicate Samples (Continued)

Parameter	Number of		RPD		DER		Evaluation and Summary of Detects
	Samples	Detects	Range	Average	Range	Average	
Th-230	0	N/A	N/A	N/A	N/A	N/A	0 PA or SD \leq 5xDL, or = ND
							0 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1
							0 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1
							0 PA & SD > 5xDL, RPD > 50%, DER \leq 1
							0 PA & SD > 5xDL, RPD \leq 50%, DER > 1
U-238	0	N/A	N/A	N/A	N/A	N/A	0 PA or SD \leq 5xDL, or = ND
							0 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1
							0 PA & SD > 5xDL, RPD > 50%, DER \leq 1
							0 PA & SD > 5xDL, RPD \leq 50%, DER > 1
							0 PA & SD > 5xDL, RPD > 50%, DER > 1

PA = Respective Parent Sample

SD = Secondary Duplicate Sample

DL = Detection Limit

* = No detects reported. Precision analysis is not possible.

DER = Duplicate Error Ratio

RPD = Relative Percent Difference

N/A = Not Applicable

Table 6-4 Comparison of Data Quality Requirement Goals with Field Replicate Samples							
Parameter	Number of		RPD		DER		Evaluation and Summary of Detects
	Samples	Detects	Range	Average	Range	Average	
TNT	0	N/A	N/A	N/A	N/A	N/A	0 PA or SD \leq 5xDL, or = ND 0 PA & SD > 5xDL, RPD \leq 35% 0 PA & SD > 5xDL, RPD > 35%
Lead	0	N/A	N/A	N/A	N/A	N/A	0 PA or SD \leq 5xDL, or = ND 0 PA & SD > 5xDL, RPD \leq 35% 0 PA & SD > 5xDL, RPD > 35%
Ra-226	24	24	0.7 - 24.5%	8.9%	0.0 - 1.5	0.6	0 PA or SU \leq 5xDL, or =ND 10 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & SD > 5xDL, RPD > 50%, DER \leq 1 2 PA & SD > 5xDL, RPD \leq 50%, DER > 1 0 PA & SD > 5xDL, RPD > 50%, DER > 1
Ra-228	6	6	9.0 - 24.7%	8.9%	0.3 - 1.3	0.8	0 PA or SD \leq 5xDL, or =ND 2 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & SD > 5xDL, RPD > 50%, DER \leq 1 1 PA & SD > 5xDL, RPD \leq 50%, DER > 1 0 PA & SD > 5xDL, RPD > 50%, DER > 1

Table 6-4 Comparison of Data Quality Requirement Goals with Field Replicate Samples (Continued)

Parameter	Number of		RPD		DER		Evaluation and Summary of Detects
	Samples	Detects	Range	Average	Range	Average	
Th-230	0	N/A	N/A	N/A	N/A	N/A	0 PA or SD \leq 5xDL, or =ND 0 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & SD > 5xDL, RPD > 50%, DER \leq 1 0 PA & SD > 5xDL, RPD \leq 50%, DER > 1 0 PA & SD > 5xDL, RPD > 50%, DER > 1
U-238	26	10	26.8 - 120.1 %	51.7%	0.7 - 3.6	1.7	8 PA or SD \leq 5xDL, or =ND 2 PA & SD > 5xDL, RPD \leq 50%, DER \leq 1 0 PA & SD > 5xDL, RPD > 50%, DER \leq 1 2 PA & SD > 5xDL, RPD \leq 50%, DER > 1 1 PA & SD > 5xDL, RPD > 50%, DER > 1

PA = Respective Parent Sample
 FR = Field Replicate Sample
 DL = Detection Limit

DER = Duplicate Error Ratio
 RPD = Relative Percent Difference
 N/A = Not Applicable

Field replicate samples were collected for Ra-226, Ra-228, and U-238. The RPD was below 50% for all sample pairs collected for Ra-226 and Ra-228. The DER of two sample pairs for Ra-226 and one sample pair from Ra-228 was above 1.0. A total of sixteen duplicate samples and parent samples were reported as having concentrations below the laboratory detection limit for U-238. The RPD of one sample pair for U-238 was above 50%. Three U-238 sample pairs had a DER above 1.0.

Complete listings for all matrix duplicate, secondary duplicate, and field replicate samples are provided in Appendix E.

Accuracy

Accuracy is a statistical measurement, expressed as a percentage, that represents how close the analytical data are to the "true" value. The measurement is based on the percent recoveries (RECs) associated with the laboratory analytical matrix spikes. The level of accuracy increases as the amount of recovery approaches 100%. The REC is calculated using the following formula:

$$\text{REC} = (\text{CONC}_{\text{ms}} - \text{CONC}_{\text{p}}) / \text{SPIKED AMOUNT}$$

where CONC_{ms} = Concentration of matrix spike analysis

CONC_{p} = Concentration of parent analysis

Accuracy goals for analytical data were presented in Table 6-1. Analytical methods and accuracy goals are presented by analytical parameter and media for both soil and water.

The majority of samples collected for RU4 and RU5 were analyzed for radioactive constituents. No matrix spike samples were collected from the CUs in RU4 or RU5 to assess accuracy. Radioactive constituent analyses were conducted in the on-site laboratory without requests for matrix spike sample analyses. However, site-wide confirmation activities included the collection of an adequate number of matrix spike and matrix spike duplicate samples to meet the quality assurance measurement requirements for accuracy. The majority of the REC values that were calculated met the DQR goals for the parameter sampled.

Completeness

Completeness is the percentage of acceptable data associated with a group of planned data. Data evaluation results from all quality control samples associated with RU4 and RU5 activities indicated that the completeness goals were met.

6.3 Assessment of Potential Cross Contamination

Twenty-four equipment and field blank samples were submitted with samples collected from RU4 and RU5 to check for potential cross contamination due to field and laboratory procedures. The parameters which were analyzed in these blanks included Ra-226 and U-238. No contamination was detected in any of these samples. Therefore, the reported data were viewed as representative of the media sampled. A complete listing of the equipment and field blank data is provided in Appendix E.

6.4 Data Validation

Radiological and chemical analytical data were subject to data review and validation upon receipt from the laboratory. Data validation is performed on 10% of all analytical data generated from confirmation sampling. A total of 39 data points within WP-253 were validated. Additional data was validated by request after review by data review guidelines. Data validation was performed by WSSRAP personnel and was conducted in accordance with the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 2) and Procedure ES&H 4.9.2, *Environmental Monitoring Data Validation*.

6.5 Data Management and Reduction

Data was reduced by entering and managing RU4 and RU5 WSSRAP data into a computerized database. A data management process tracks the samples collected and analyzed throughout the remedial process. Soil/Sediment Sampling Forms (field data sheets) were generated to record all pertinent sample collection information and associated QA/QC sample information. From the field data sheets, sample information was transferred into the computerized databases. Pertinent sample information was entered into a field sample tracking database (FST). The FST information was used to generate analytical request forms entered into an environmental sample tracking database (EST). The EST was used to print out Chain-Of-Custody Forms which accompanied sample shipments to the laboratory. Preliminary analytical results were entered into a geographic information system database (GIS), which was later

compared to the final analytical results entered into a wizard database (WIZARD). Databases were also utilized for analytical review and analytical results comparisons.

7. SUMMARY OF CLOSURE REPORT FINDINGS

7.1 Work Package Disposition

The Weldon Spring Site Remedial Action Project (WSSRAP) WP-253 area consists of 15 confirmation units (CUs) contained within two remediation units (RUs). Fourteen of the 15 CUs (CUs 5 through 18) were within RU4, and RU5 consisted of only CU19.

7.2 Confirmation Unit Dispositions

Upon completion of remedial activities and review of the preliminary data, preliminary results were included with the completed CU Disposition Forms. Disposition Forms were reviewed and signed by selected project personnel. A CU was released when all contaminants of concern (COC) concentrations within a CU were in compliance with cleanup standards. The cleanup standards ensure that RU4 and RU5 remedial activities are conducted in compliance with the Record of Decision (ROD) (Ref. 3).

Based upon the preliminary results, the 15 CUs located within RU4 and RU5, except for a portion of CU5 associated with a roadway, were released for unrestricted use. A partial release for unrestricted use was issued for CU5. Once final analytical data were received, the data were compared to preliminary analytical data to ensure that COC concentrations were in compliance with the ALARA process.

7.3 Permanent Partial Confirmation Dispositions

A permanent partial confirmation disposition is the release of a portion of a CU area to facilitate the permanent closure of an area. Most of CU5 was treated as a partial release, including all areas except for a roadway which was still operational. The roadway remediation and confirmation will be conducted in the future.

7.4 Summary of Chemical Plant Area Remedial Unit 4 Results

The following table provides a summary of the total number of samples collected and analyzed for each contaminant during remedial activities at the chemical plant area RU4. The number of detections that exceed ALARA, ranges, and average concentrations are also provided for each contaminant. The table was generated using the final data set compiled from all samples representing soils left in place.

Table 7-1 Summary Totals for RU4 and RU5

CONTAMINANT	NO. OF SAMPLES	CONCENTRATION RANGE	AVERAGE CONCENTRATION	SURFACE ALARA	SURFACE CRITERIA	Results > ALARA
Lead (mg/kg)	7	24.5-31.7	27.63	240	450	0
Ra-226 (pCi/g)	233	0.84-4.36	1.44	5.0	6.2	0
Ra-228 (pCi/g)	35	<0.98-1.59	1.19	5.0	6.2	0
Combined Radium	35	1.81-3.94	1.60	5.0	6.2	0
Th-230 (pCi/g)	6	0.91-1.79	1.51	5.0	6.2	0
TNT (mg/kg)	11	<0.2	N/A	14	140	0
U-238 (pCi/g)	194	1.27-109.0	8.63	30	120	20

N/A Average concentration not applicable since all results were less than the detection limit.

Analytical results generated from remedial activities at RU4 indicate the average concentration of each COC over the entire RU4 area is below the respective cleanup criteria and ALARA goal. For each of the 14 CUs located within RU4, COC averages were also calculated. CU-specific results are presented in greater detail in Section 5. Although some individual sample concentrations within the individual CUs are above the ALARA goal, the average COC concentrations for each of the 14 CUs, are below ALARA. There were no results which exceeded criteria.

Remedial activities were completed for all CUs located in RU4 and RU5. Based on analytical results presented above, all 15 CUs, with the exception of a portion of CU5, were released for unrestricted use in accordance with the cleanup goals and standards stated in the *Chemical Plant Area Cleanup Attainment Confirmation Plan (Attainment Plan)* (Ref. 5).

7.5 Summary of Chemical Plant Confirmation Results

To meet the requirements of the *Record of Decision* (Ref. 3), more than 50% of the results for each parameter must be less than the as low as reasonably achievable (ALARA) goal. Table 7-2 summarizes the cumulative results to date. This table includes results from WP-253, WP-399, WP-420, and WP-461.

Table 7-2 Summary Totals for Confirmation

CONTAMINANT	NUMBER OF SAMPLES	MINIMUM CONCENTRATION	MAXIMUM CONCENTRATION	AVERAGE CONCENTRATION	SAMPLES GREATER THAN ALARA
Arsenic (mg/kg)	756	0.48	34.10	7.24	0
Chromium (mg/kg)	1208	3.8	41.60	16.97	0
Lead (mg/kg)	951	2.40	817.00	16.68	
PAH (mg/kg)	523	0.00	3.50	0.19	64
PCB (mg/kg)	1328	0.00	6.00	0.04	15
Ra-226 (pCi/g)	1600	0.37	2.24	1.35	0
Ra-228 (pCi/g)	1411	0.29	6.60	1.28	1
Th-230 (pCi/g)	1112	0.09	29.10	1.49	
Th-232 (pCi/g)	1007	0.30	6.60	1.28	1
Thallium (mg/kg)	209	0.11	4.80	0.92	0
TNT (mg/kg)	18	ND	34.00	3.54	
Toluene (mg/kg)	4	0.00	3.40	0.85	0
U-238 (pCi/g)	2963	0.39	228.00	4.27	52

ND Non Detect

7.6 Comparison of Standard Deviations

This section presents a comparison of the estimated standard deviations calculated following U.S. Environmental Protection Agency (EPA) guidance and presented in the *Attainment Plan* (Ref. 5), with those deviations calculated using confirmation results. Since there were no existing remediation data available to calculate the standard deviation (sigma), the *Attainment Plan* estimated sigma using the range (assuming the average concentration remaining after remediation would not exceed cleanup criteria) divided by six. To determine whether the

specified level of precision was obtained, a comparison was made between the estimated sigma and the calculated sigma using the RU4 and RU5 results.

The comparison indicates that the specified level of precision (a false positive = 0.05 and a false negative = 0.20) has been obtained. All of the calculated sigma's are less than the estimated sigma's, indicating that the minimum specified precision was met in all RUs. Table 7-2 presents the estimated sigma and calculated sigma's for each contaminant of concern (COC).

Table 7-3 Estimated Sigma and Calculated Sigma for Contaminants of Concern

COC	ESTIMATED SIGMA ^(a)	RU4/RU5 SIGMA ^(b)	CUMULATIVE SIGMA ^(c)
Arsenic	12.5	N/A	3.46
Chromium	18.3	N/A	4.89
Lead	75	2.66	30.89
Thallium	3.3	N/A	1.01
PAHs	0.93	N/A	0.46
PCBs	1.33	N/A	0.31
TNT	23.3	0	8.51
U-238	20	15.35	10.60
Ra-226	1.03	0.31	0.23
Ra-228	1.03	0.21	0.32
Th-230	1.03	0.32	1.02
Th-232	1.03	N/A	-

- (a) Sigma estimated in the *Attainment Plan* (Ref. 5).
- (b) Sigma calculated using only the WP253 - RU4 and RU5 confirmation results.
- (c) Sigma calculated using cumulative confirmation results (WP-399, WP-461, WP-420, WP-420, WP-253).
- N/A Not analyzed during WP-253

8. REFERENCES

1. MK-Ferguson Company and Jacobs Engineering Group. *Remedial Investigation for the Chemical Plant Area of the Weldon Spring Site*, Rev. 0, 2 Vols. DOE/OR/21548-074. Prepared for the U.S. Department of Energy, Oak Ridge Field Office, Weldon Spring Site Remedial Action Project. St. Charles, MO. November 1992.
2. MK-Ferguson Company and Jacobs Engineering Group. *Supplementary Soil Sampling Plan*, Rev. 0. DOE/OR/21548-408. Prepared for the U.S. Department of Energy, Oak Ridge Field Office. St. Charles, MO. August 1993.
3. Department of Energy. *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site*. DOE/OR/21548-376. Oak Ridge Field Office. St. Charles, MO. September 1993.
4. MK-Ferguson and Jacobs Engineering Group. *Confirmation Sampling Plan Details For Soils at the Chemical Plant Construction Materials Staging Area Proposed Location (WP-253)*. Rev. 0. DOE/OR/21548-565. Prepared for U.S. Department of Energy, Oak Ridge Operations Office, St. Charles, MO. September 1995.
5. MK-Ferguson Company and Jacobs Engineering Group. *Chemical Plant Area Cleanup Attainment Confirmation Plan*. Rev. 3. DOE/OR/21548-491. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office. St. Charles, MO. December 1995.
6. MK-Ferguson Company and Jacobs Engineering Group. *Environmental Quality Assurance Project Plan*. Rev. 2. DOE/OR/21548-352. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office. St. Charles, MO. May 1996.

7. Oak Ridge Institute for Science and Education, environmental Survey and Site Assessment Program, Energy/Environment Systems Division. *Final Verification Survey Plan for the Chemical Plant Area, Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri*. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office. St. Charles, MO. December 7, 1995.
8. Specification for WP-253, *Construction Materials Staging Area*. June 1995.

8.1 Procedures

- ES&H 1.1.4 *Logbook Procedure*
- ES&H 1.2.1 *Soil Remediation Disposition Process*
- ES&H 2.3.8 *Contamination Survey*
- ES&H 2.4.1 *Calibration and Use of Portable Radiological Survey Instruments*
- ES&H 2.5.1 *Radiological Soil Sampling*
- ES&H 2.5.2 *In Situ Radiation Measurements*
- ES&H 2.5.5 *Sample Preparation Procedure for Radiological Soil Samples*
- ES&H 2.5.8 *Th-230 Determinations in Soils by the UNC Method*
- ES&H 2.6.9 *Instructions for Calibration and Operation of the High Purity Germanium Detector*
- ES&H 4.1.3 *Sample Equipment Decontamination*
- ES&H 4.4.1 *QC Samples for Aqueous and Solid Matrices*
- ES&H 4.4.5 *Soil/Sediment Sampling*
- ES&H 4.9.1 *Environmental Monitoring Data Verification*
- ES&H 4.9.2 *Environmental Monitoring Data Validation*

8.2 Instructions

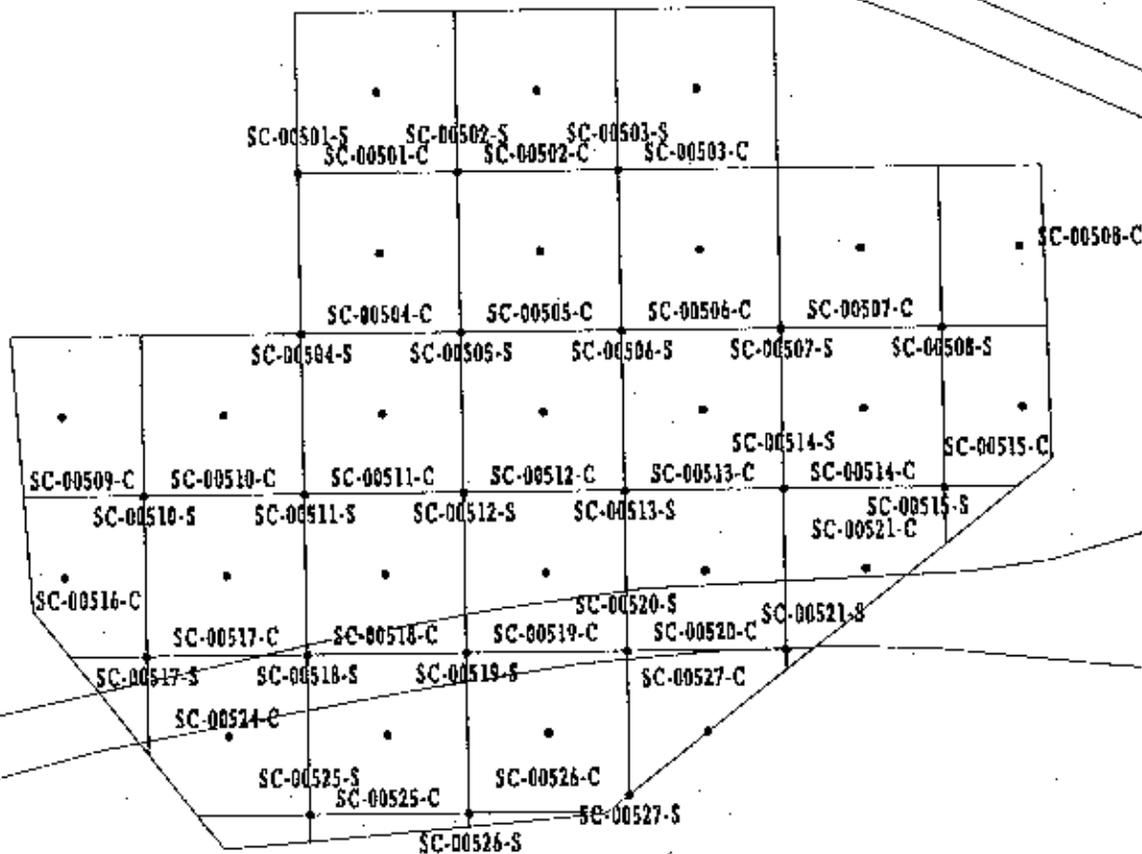
- ES&HDI-150 *Use of Ludlum Model (44-10(2x2) and 44-2 (1x1)) NaI Detector*
- ES&HDI-203 *Use of On-Site Radiological Laboratory*

8.3 Acronyms

AEC	Atomic Energy Commission
ALARA	as low as reasonably achievable
COC	contaminant of concern
CPM	counts per minute
CU	Confirmation Unit
db	database
DER	duplicate error ratio
DOE	Department of Energy
DQO	Data Quality Objectives
DQR	Data Quality Requirements
EPA	Environmental Protection Agency
EQAPjP	Environmental Quality Assurance Project Plan
EST	environmental sample tracking
FST	field sample tracking
GIS	Geographical Information System
ha	hectare
IOC	interoffice correspondence
km	kilometers
m	meter
NPL	National Priorities List
PAHs	polynuclear aromatic hydrocarbons
PMC	Project Management Contractor
QA	quality assurance
QAP	Quality Assurance Plan
QC	quality control
Ra-226	Radium-226
Ra-228	Radium-228
REC	percent recovery
ROD	Record of Decision
RPD	relative percent difference
RU	remedial unit
SOP	standard operating procedure

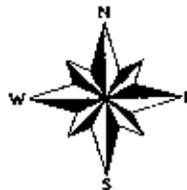
Th-230 Thorium-230
TNT trinitrotoluene
U-238 Uranium-238
WIZARD Wizard database
WP work package
WSSRAP Weldon Spring Site Remedial Action Project

APPENDIX A
Sample Location Maps



10 5 0 METERS

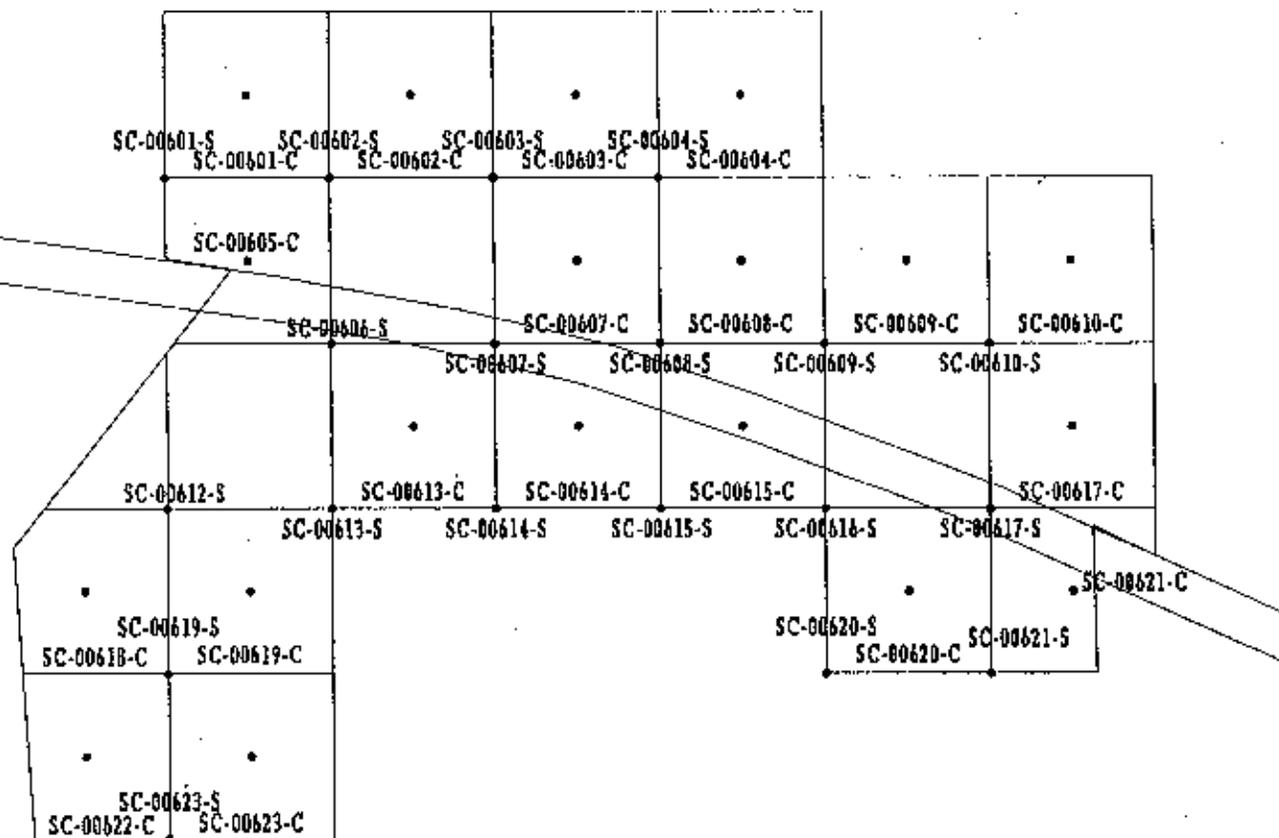
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Sample Locations in Remedial Unit RU004
 Confirmation Unit CU005

Figure A-1

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DATE: 09/02/97	



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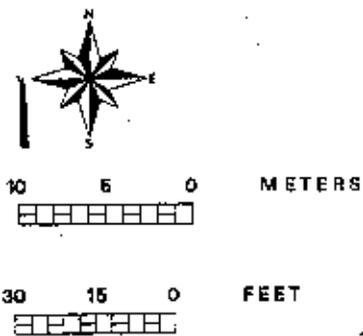
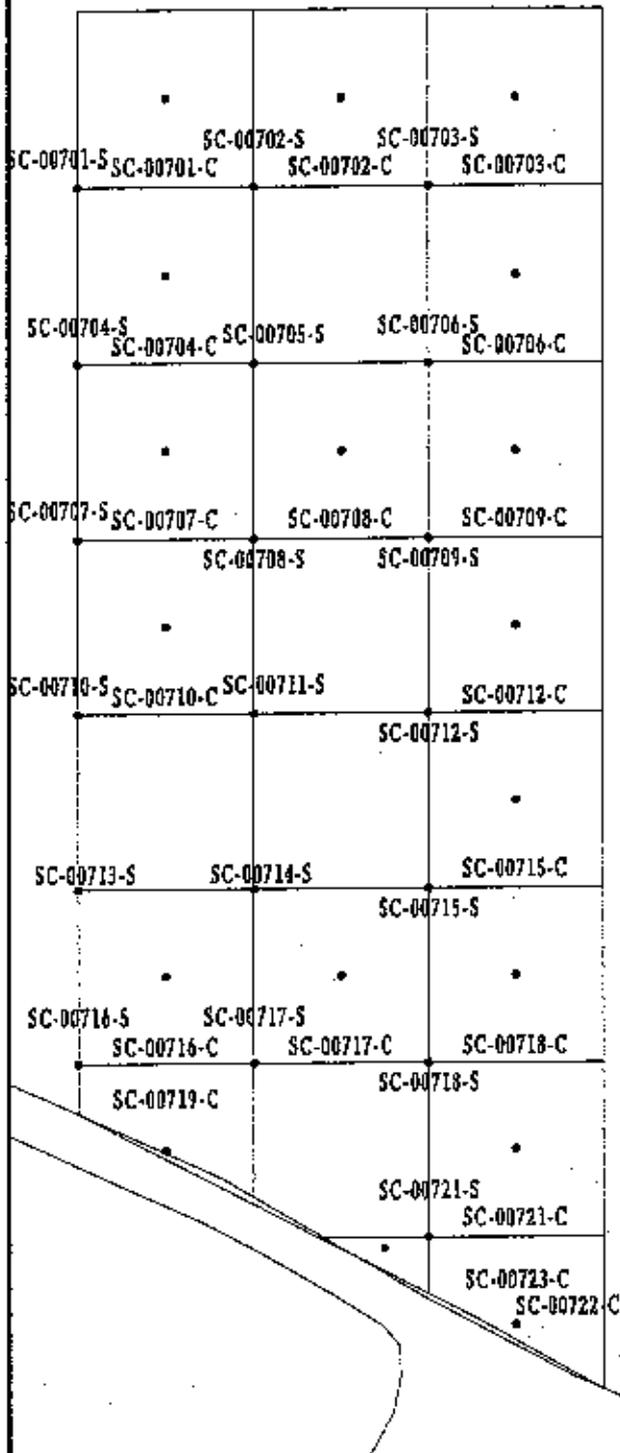
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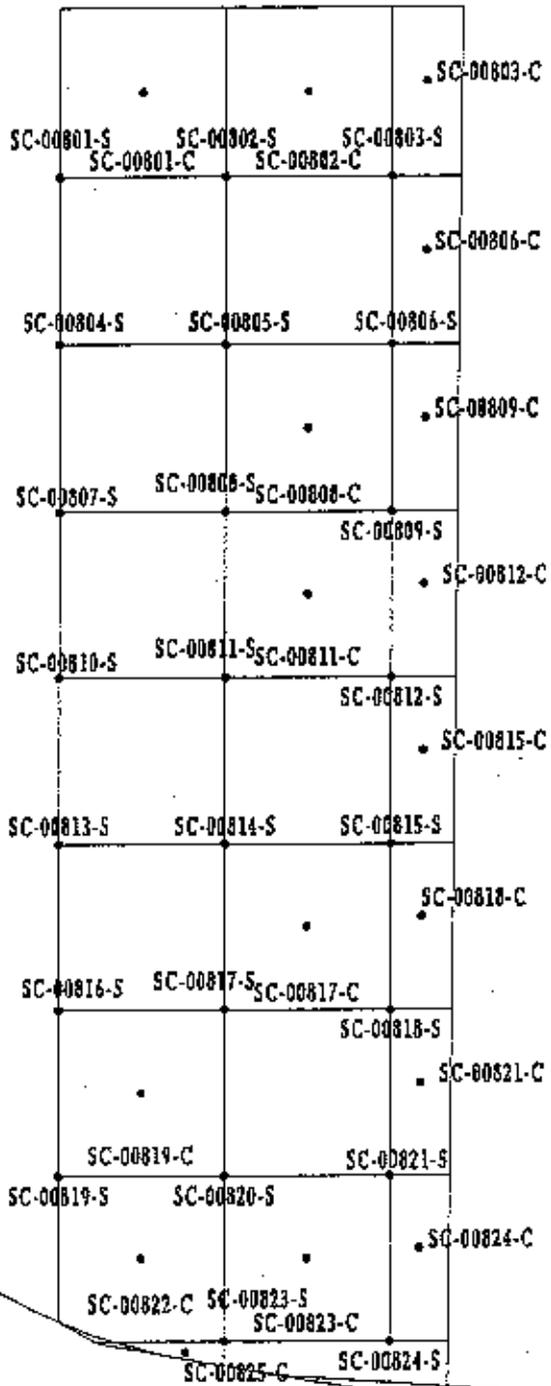
Sample Locations in Remedial Unit RU004
 Confirmation Unit CU006

Figure A-2

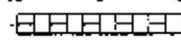
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DATE: 09/02/97	



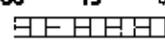
<p>Sample Locations in Remedial Unit RU004 Confirmation Unit CU007</p>			
<p>Figure A-3</p>			
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		DATE:	09/02/97



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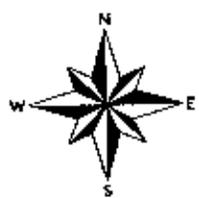
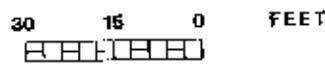
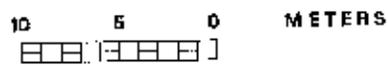
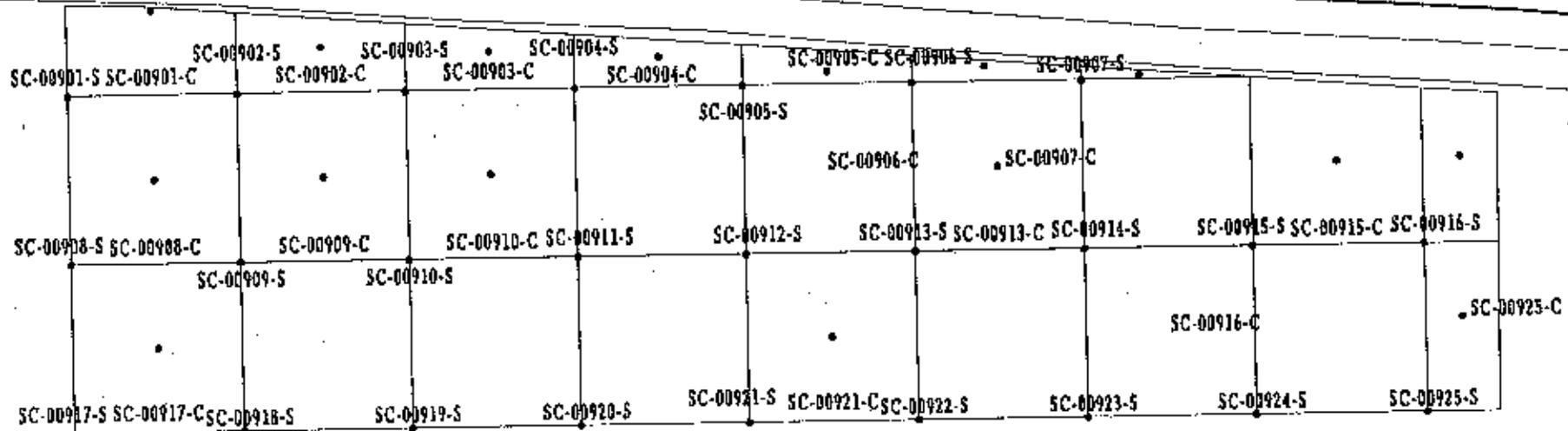
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Sample Locations in Remedial Unit RU004
Confirmation Unit CU008

Figure A-4

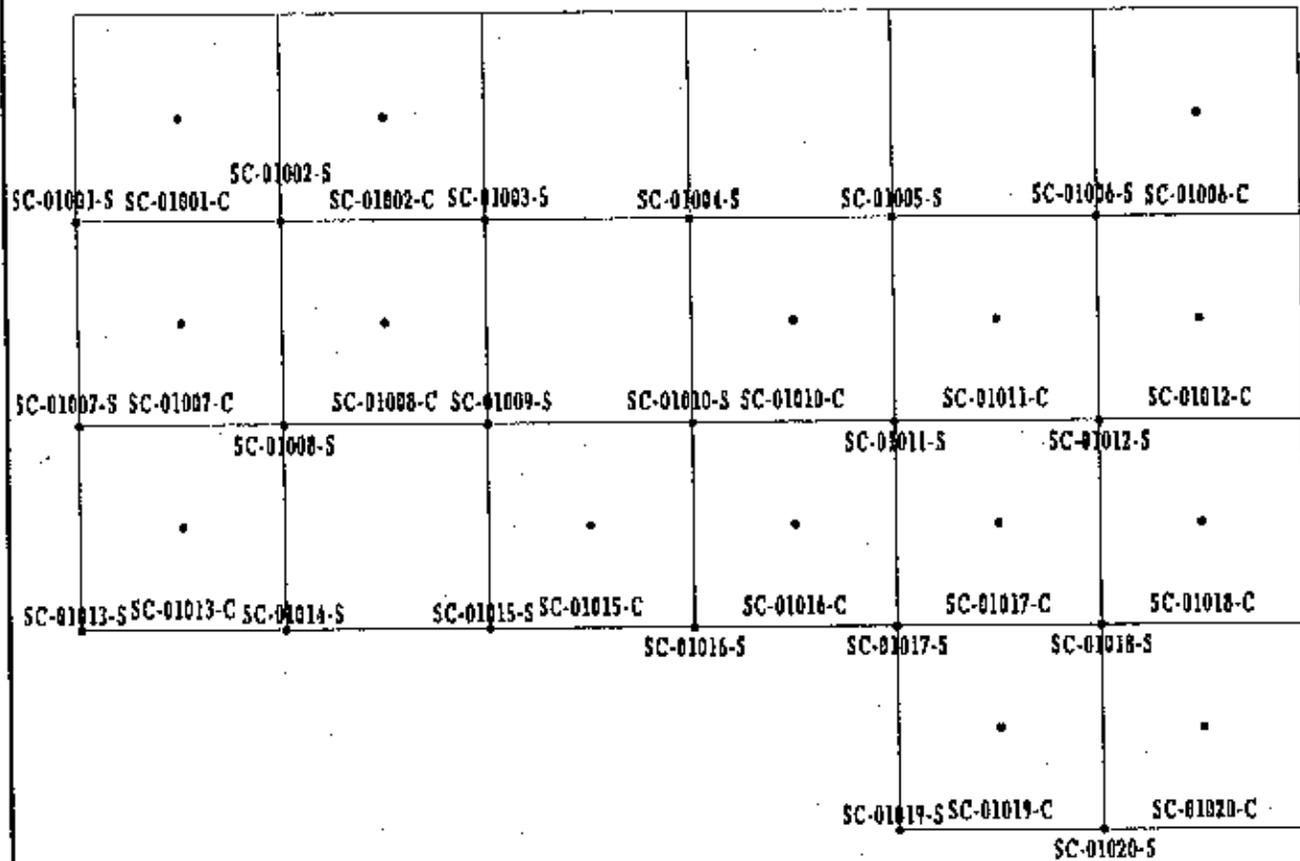
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ORIGINATOR:	MGL	DRAWN BY:	LGB
		DATE:	09/02/97



Sample Locations in Remedial Unit RU004
Confirmation Unit CU009

Figure A-5

EXHIBIT NO.:	A/DC/0027/0895	REPORT NO.:	DOE/OR/21548-714
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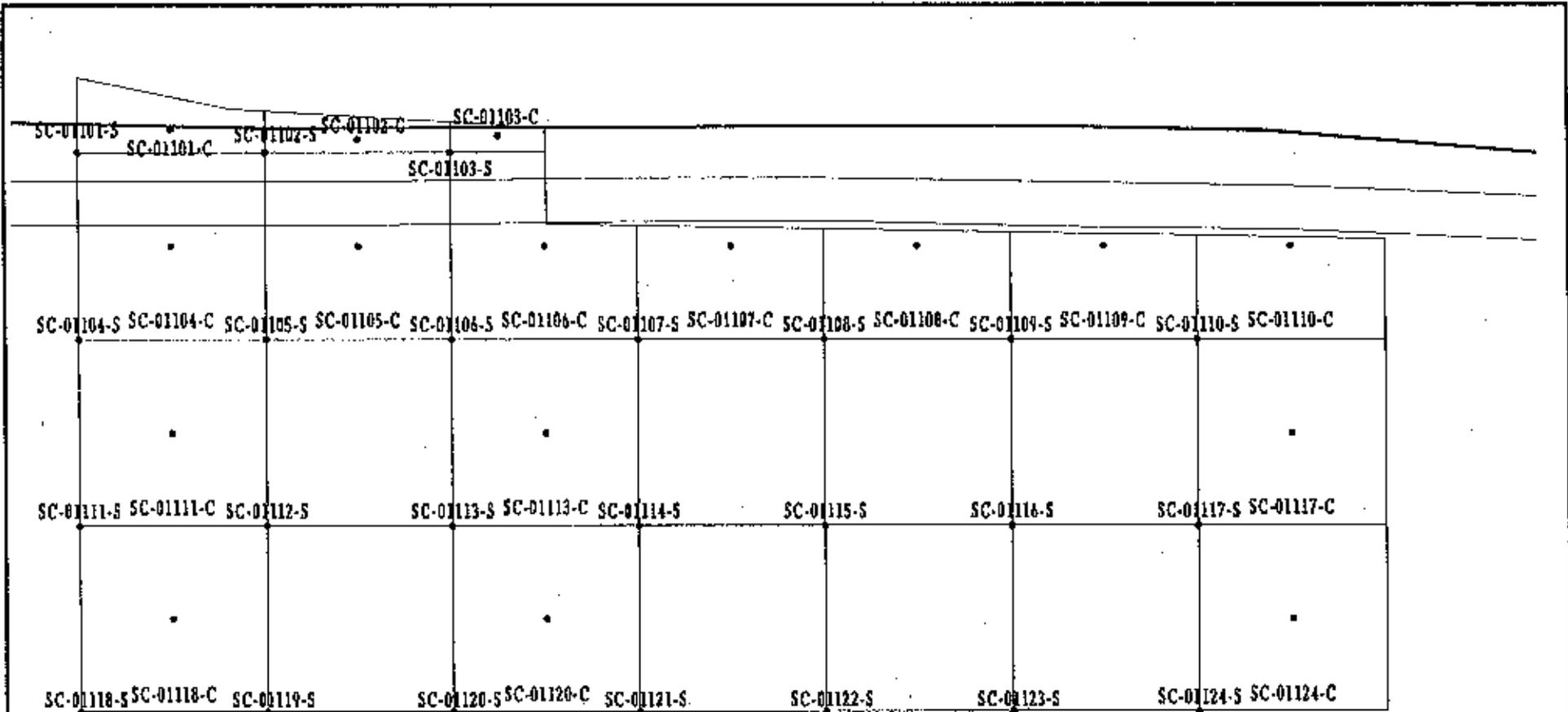
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Sample Locations in Remedial Unit RU004
Confirmation Unit CU010

Figure A-6

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DATE: 09/02/97	



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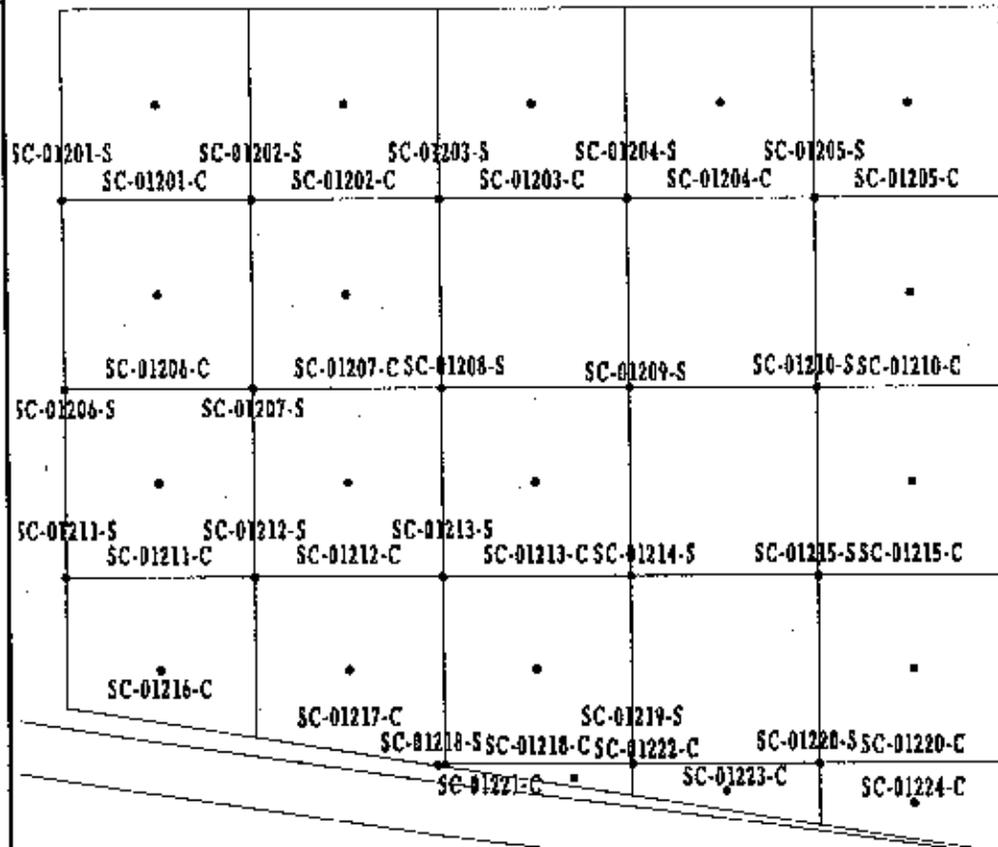
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Sample Locations in Remedial Unit RU004
Confirmation Unit CU011

Figure A-7

EXHIBIT NO.: A/DC/029/0895	REPORT NO.: DOE/OR/21548-714
ORIGINATOR: MGL	DRAWN BY: LGB
DATE: 09/02/97	



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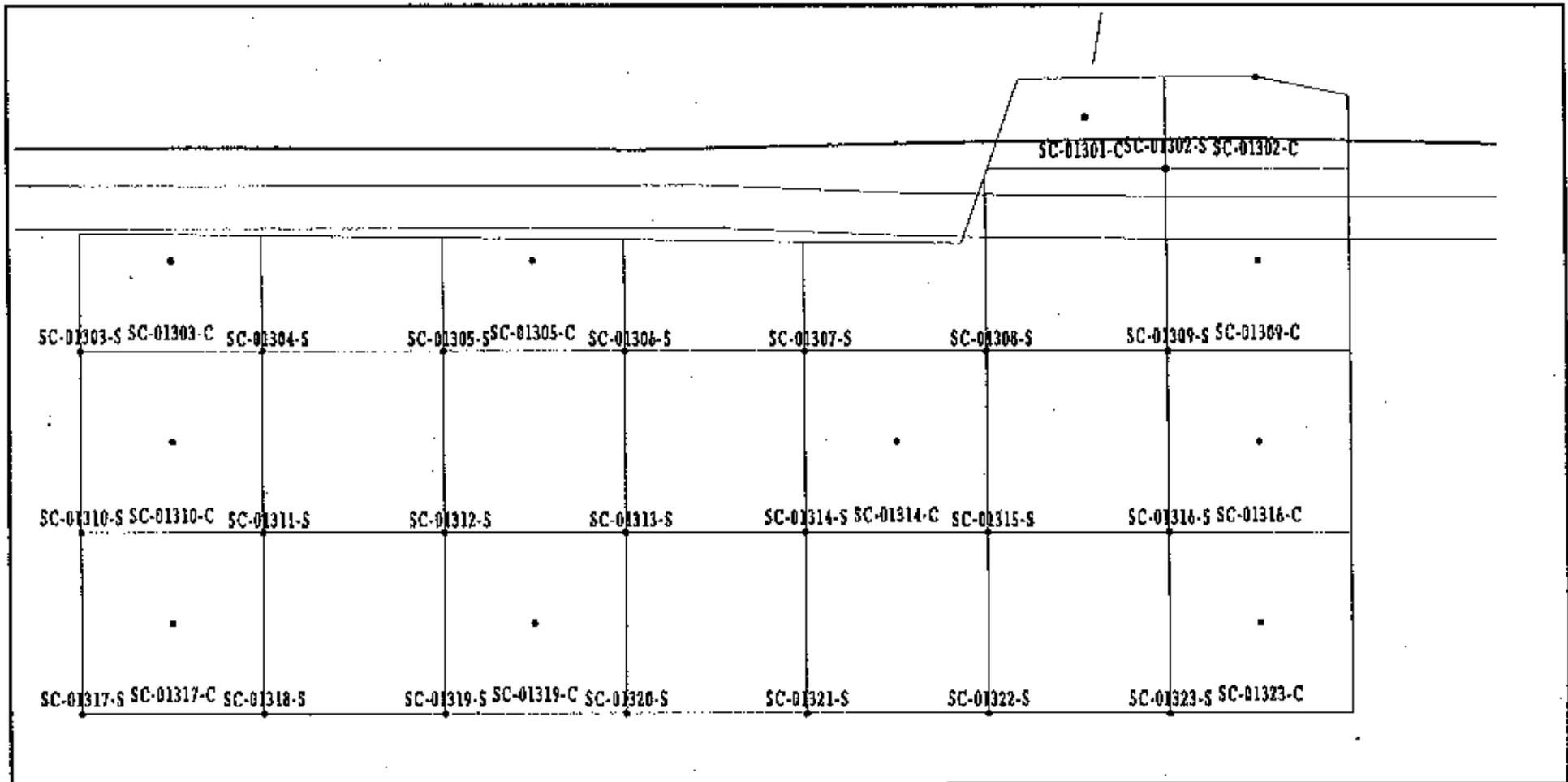
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Sample Locations in Remedial Unit RU004
Confirmation Unit CU012

Figure A-8

EXHIBIT NO.: A/DC/030/0895	REPORT NO.: DOE/OR/21548-714
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DATE: 09/02/97	



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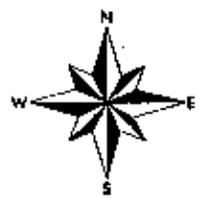
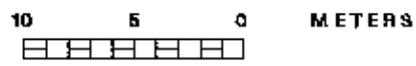
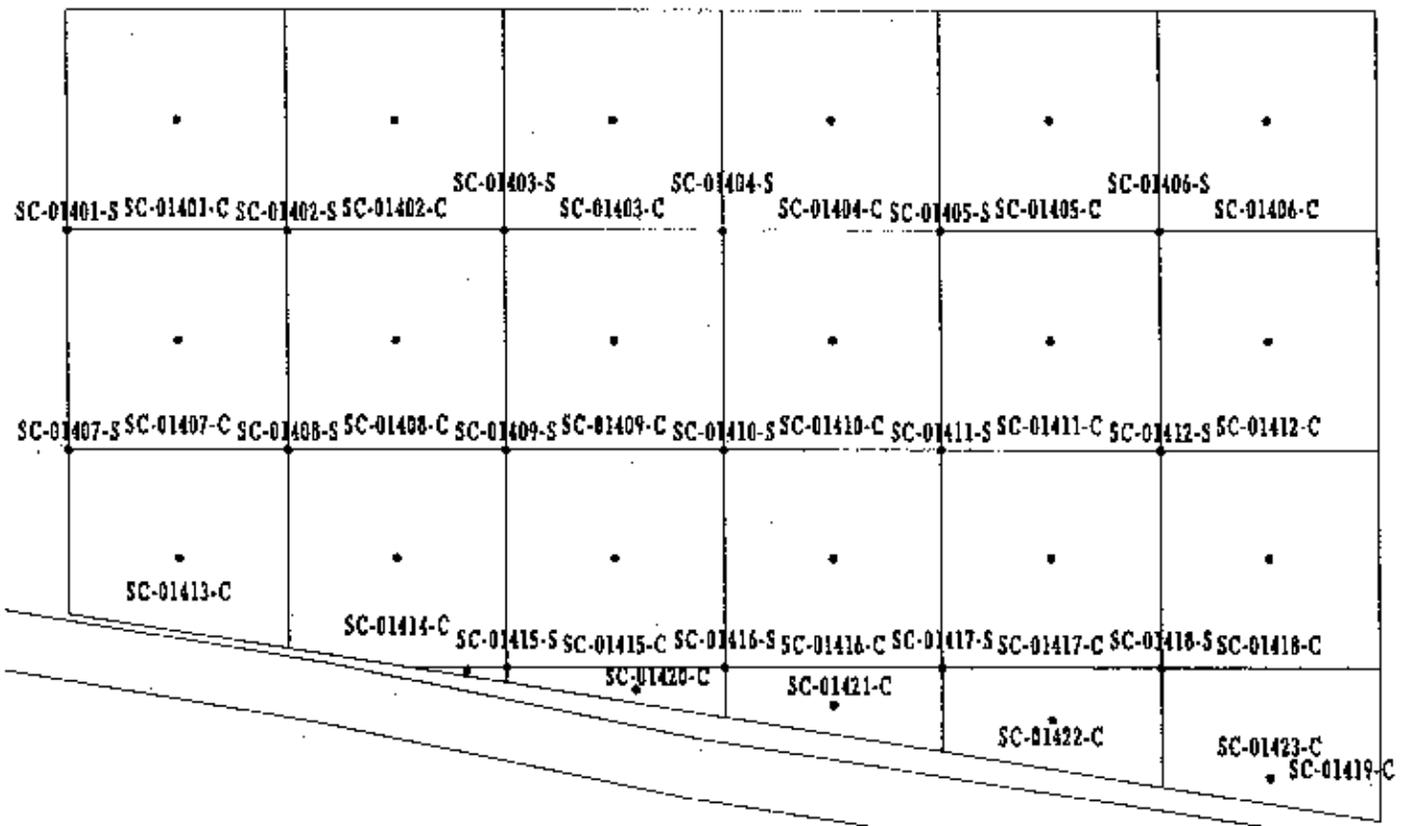
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Sample Locations in Remedial Unit RU004
Confirmation Unit CU013

Figure A-9

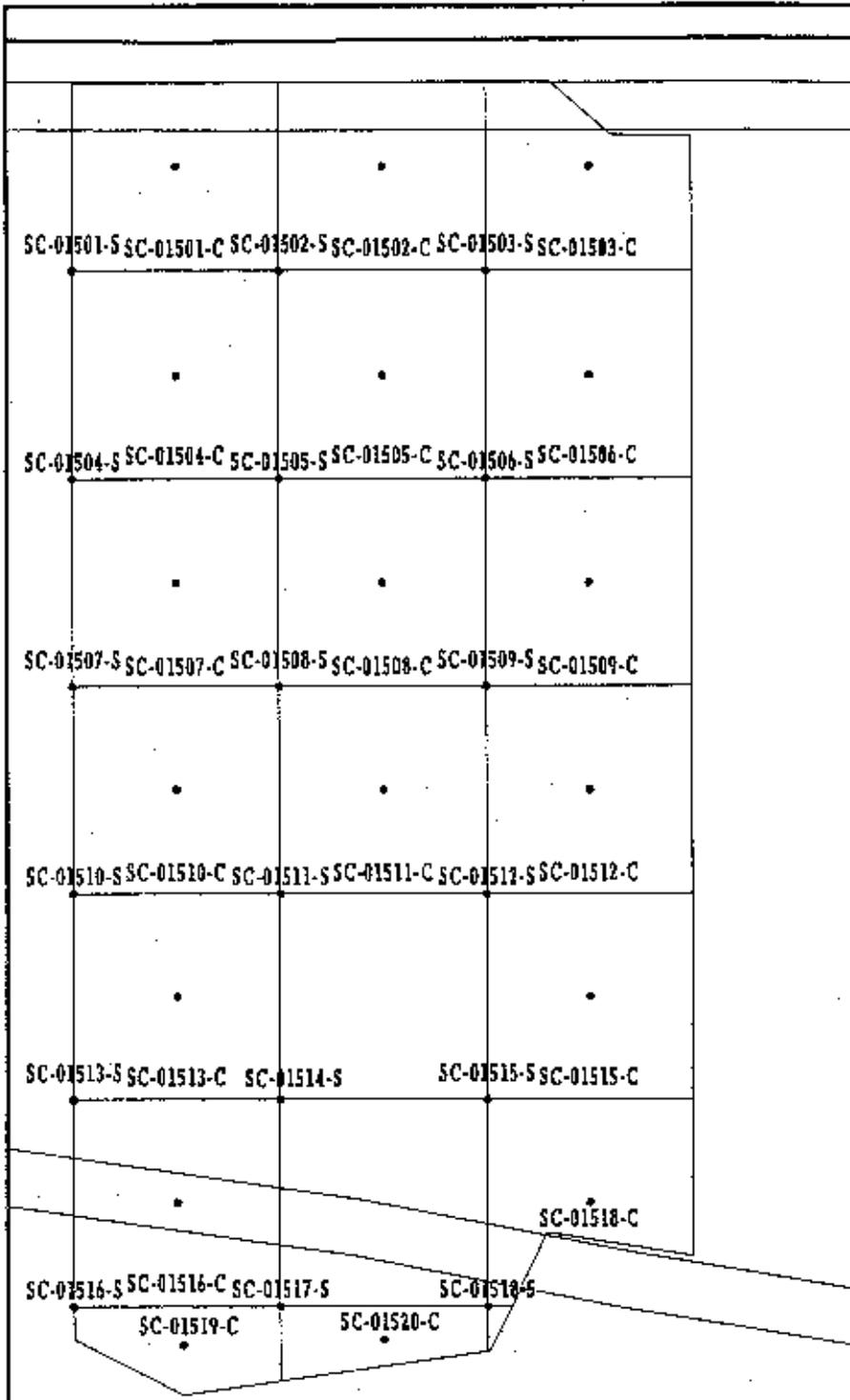
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ORIGINATOR: MGL	DRAWN BY: LGB
	DATE: 09/02/97



Sample Locations in Remedial Unit RU004
Confirmation Unit CU014

Figure A-10

EXHIBIT NO.: A/DC/032/0895	REPORT NO.: DOE/OR/21548-714
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DATE: 09/02/97	



Sample Locations in Remedial Unit RU004
Confirmation Unit CU015

Figure A-11

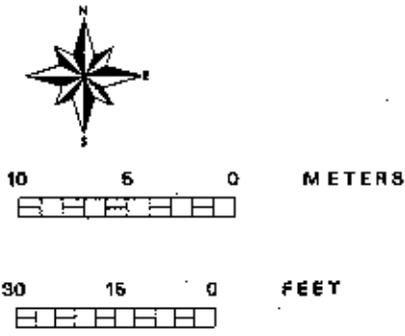
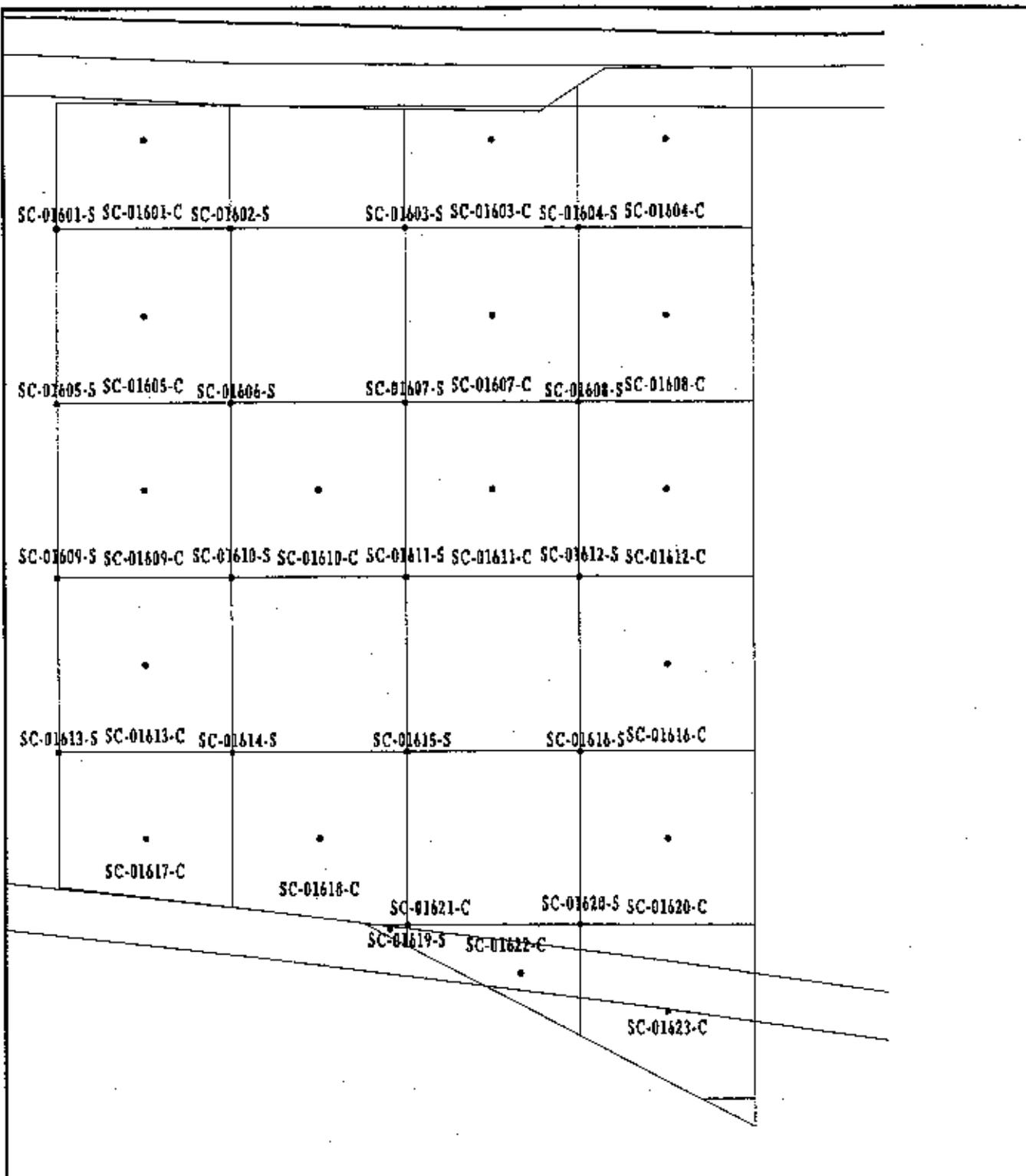


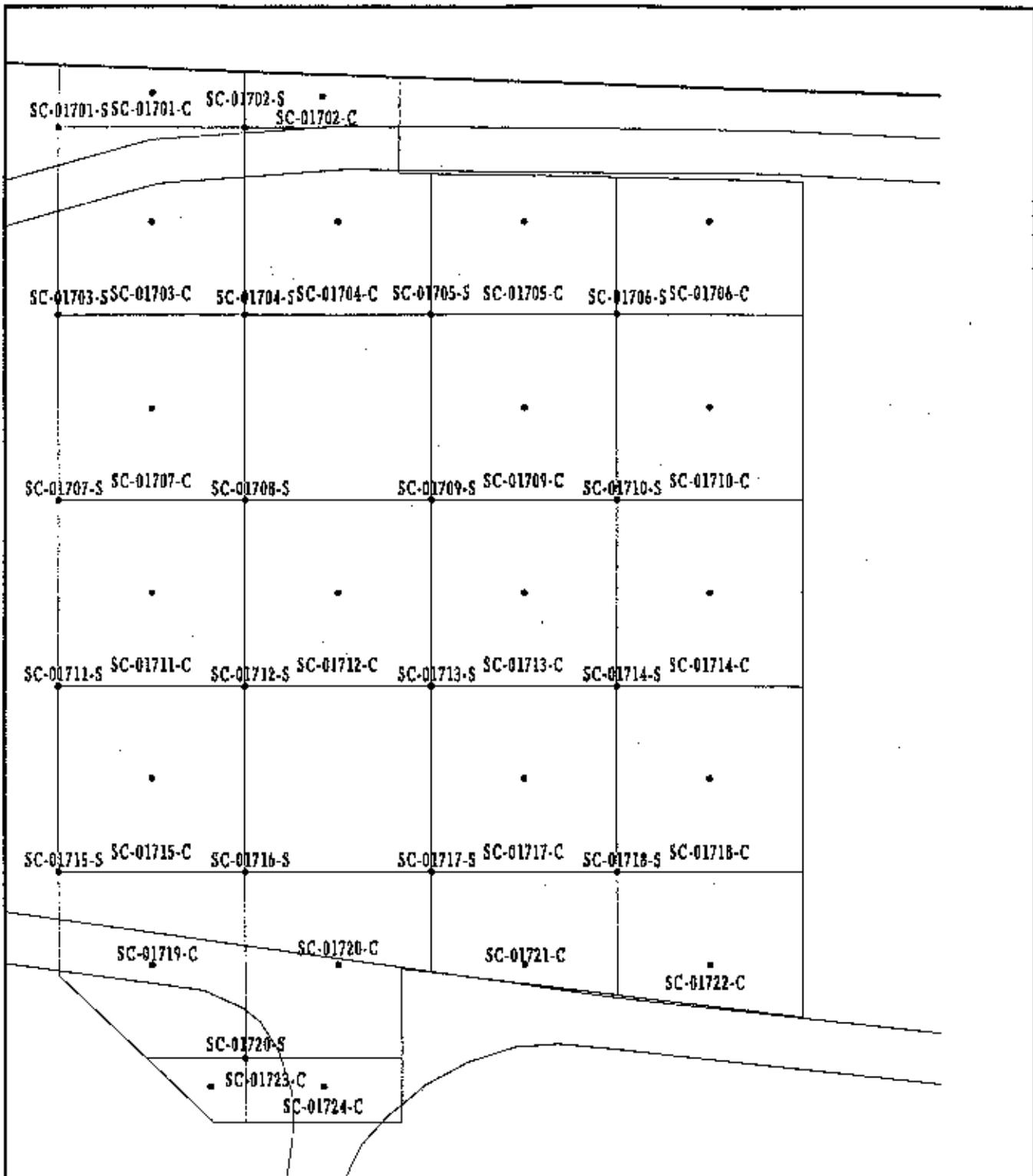
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		DATE:	09/02/97



10 5 0 METERS

30 15 0 FEET

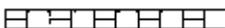
<p>Sample Locations in Remedial Unit RU004 Confirmation Unit CU016</p>			
<p>Figure A-12</p>			
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		DATE:	09/02/97



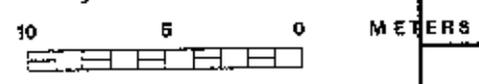
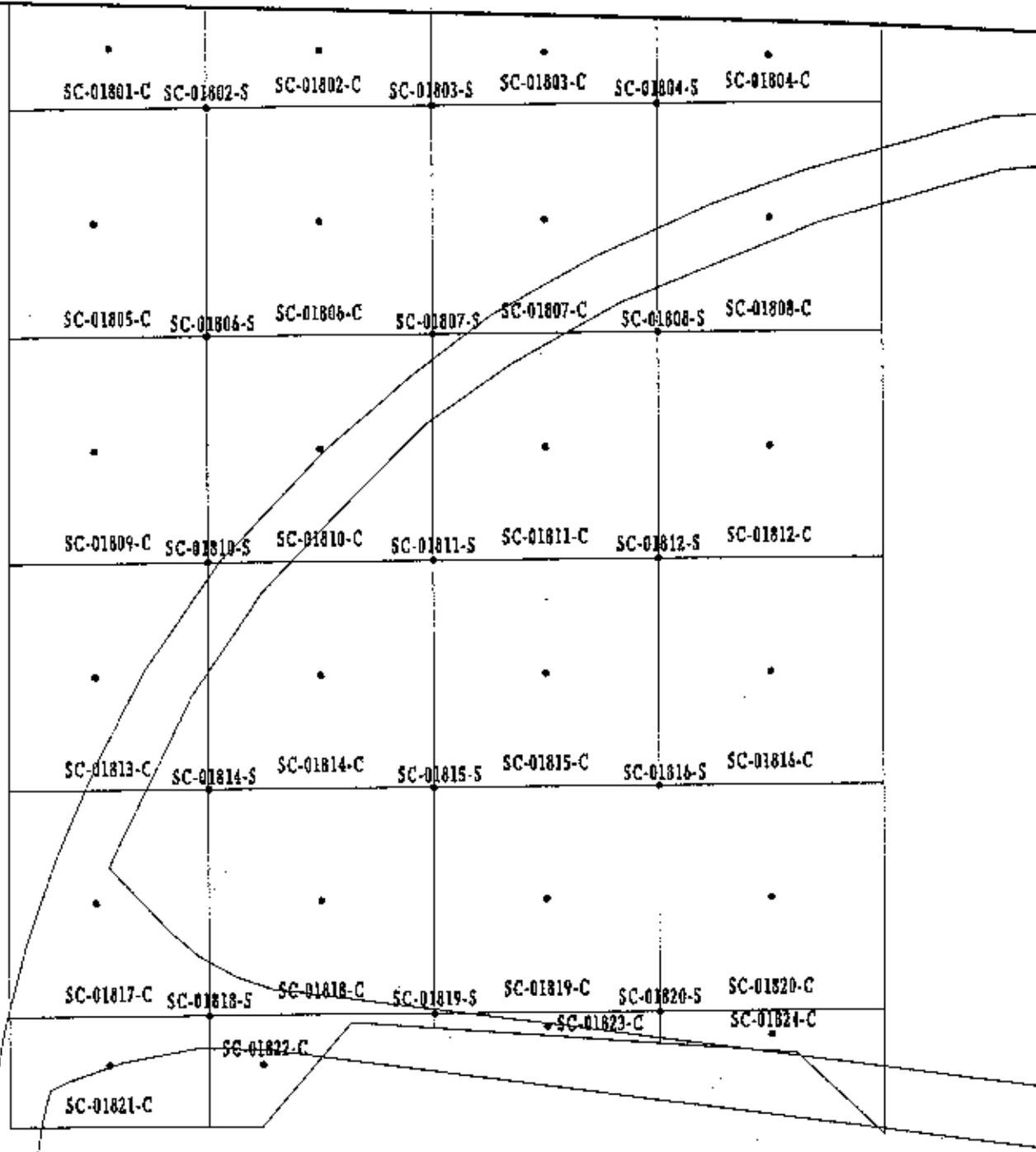
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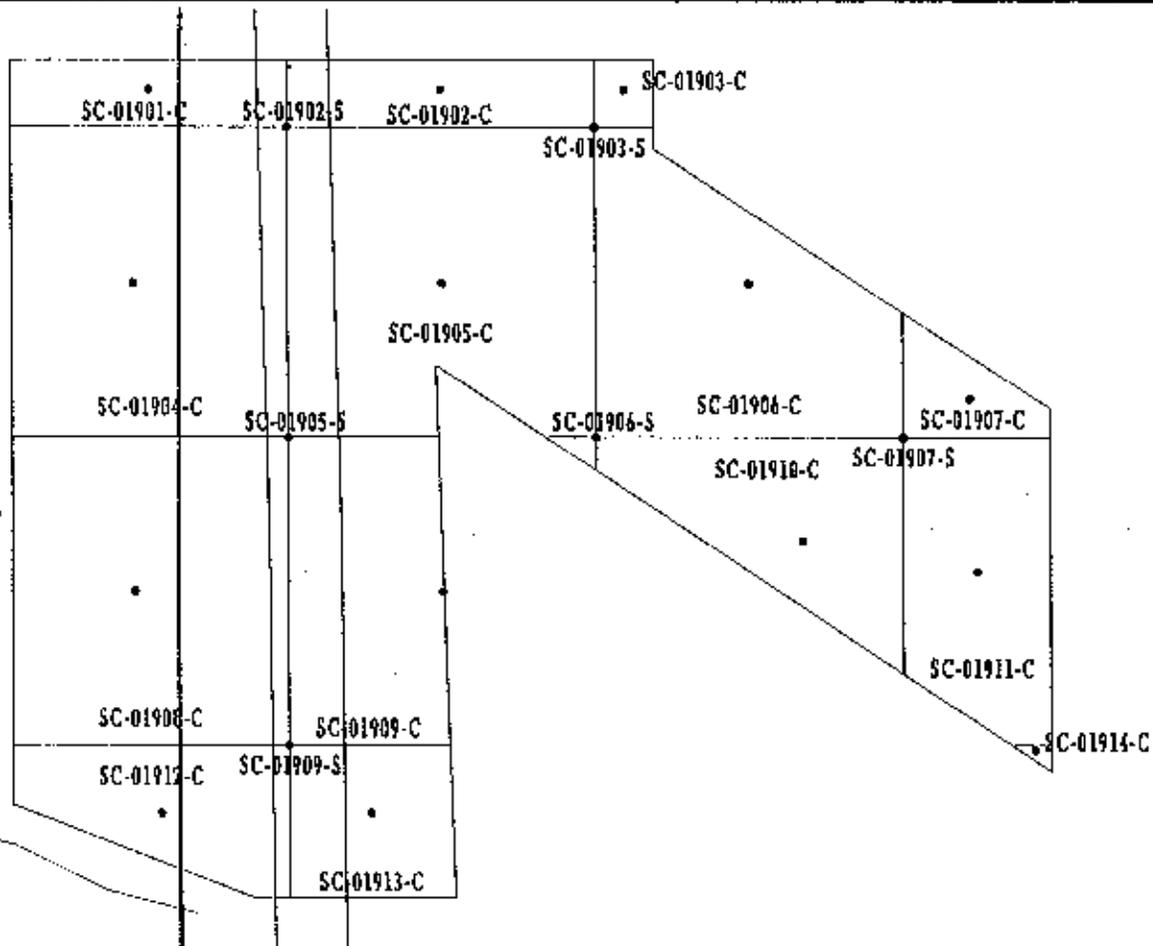
30 15 0 FEET



<p>Sample Locations in Remedial Unit RU004 Confirmation Unit CU017</p>			
<p>Figure A-13</p>			
EXHIBIT NO.: A/DC/035/0895		REPORT NO.: DOE/OR/21548-714	
ORIGINATOR: MGI	DRAWN BY: IGB	DATE: 09/02/97	



Sample Locations in Remedial Unit RU004 Confirmation Unit CU018		
Figure A-14		
EXHIBIT NO.:	A/DC/036/0895	REPORT NO.:
ORIGINATOR:	MGL	DATE:
DRAWN BY:	LGB	09/02/97



10 5 0 METERS

30 15 0 FEET



Sample Locations in Remedial Unit RU005
Confirmation Unit CU019

Figure A-15

EXHIBIT NO.: A/DC/0037/0895	REPORT NO.: DOE/OR/21548-714
ORIGINATOR: MGL	DRAWN BY: LGB
DATE: 09/02/97	

APPENDIX B
Disposition Forms

PARTIAL CONFIRMATION UNIT RELEASE FORM

ES&H-1.2.1, 12/95

SECTION I

1. Work Package Number: WP253 2. Date: 12/21/95 3. Review Form No.: 95-001

4. Remediation Unit Number: R1004 5. Confirmation Unit Number (see attached map): C1005

6. Contaminants of Concern: U238 Th230 Th232 RA226 Ra228 TNT (screening)
Tl PCB PAH As Cr Pb

7. Number of Samples Collected: 27 locations

8. Total Number of Samples for CU: 33 locations

9. Any results exceed criteria? Yes (requires additional remediation) No

10. Results average below ALARA goals? Yes No (requires additional remediation)

11. Reviewer: Melvin H. Lutz Date: 12/21/95

12. Reviewer Disposition Recommendation: Release for Unrestricted Use Additional Excavation Required

SECTION II

I, [Signature] agree with the above recommendation for this partial CU.

ALARA Committee Chairman: [Signature] Date: 12/22/95

SECTION III

Project Manager: [Signature] For K.W. Date: 12/22/95

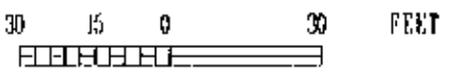
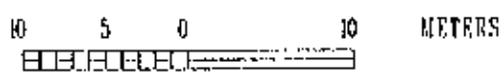
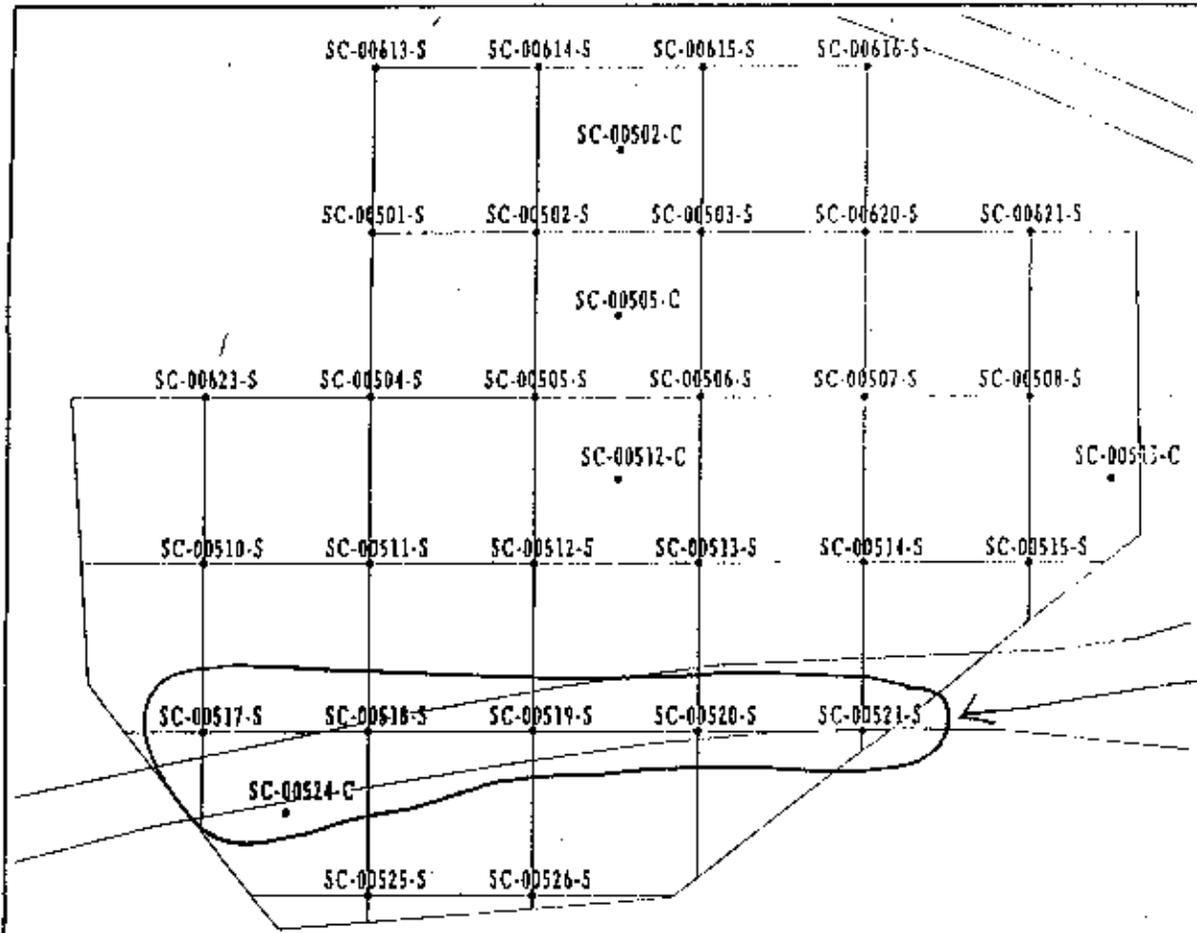
Construction Engineer: Jal Schanda for D Ferguson Date: 12/22/95

Note: Includes all samples for C1005 with the following exceptions -

- SC-00517-S
- SC-00518-S
- SC-00519-S
- SC-00520-S
- SC-00521-S
- SC-00524-C

Avg [Pb] = 27.6 mg/Kg
 Avg [Puzzle] = 2.34 pc/lg
 [TNT] all < 0.5 mg/Kg

*The locations are not included in this sampling will occur after road is removed.



Sample Locations in Remedial Unit RU004	
Confirmation Unit CU005	
Figure 2-1	
EXHIBIT NO.: A/DC/023/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU005

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	UNITS	DL	COMMENTS
SC-00501-S	12/06/95	Ra-226	1.17	2.66	pCi/g	0.97	RN not ingrown
SC-00502-S	12/06/95	Ra-226	1.18	2.68	pCi/g	0.27	RN not ingrown
SC-00502-C	12/06/95	Ra-226	1.10	2.50	pCi/g	0.25	RN not ingrown
SC-00503-S	12/06/95	Ra-226	0.95	2.16	pCi/g	0.26	RN not ingrown
SC-00504-S	12/06/95	Ra-226	0.95	2.16	pCi/g	0.26	RN not ingrown
SC-00505-S	12/06/95	Ra-226	1.03	2.34	pCi/g	0.32	RN not ingrown
SC-00505-C	12/06/95	Ra-226	1.04	2.36	pCi/g	0.36	RN not ingrown
SC-00506-S	12/06/95	Ra-226	1.04	2.36	pCi/g	0.21	RN not ingrown
SC-00507-S	12/06/95	Ra-226	0.85	2.00	pCi/g	0.26	RN not ingrown
SC-00508-S	12/06/95	Ra-226	1.02	2.32	pCi/g	0.30	RN not ingrown
SC-00510-S	12/06/95	Ra-226	0.65	1.54	pCi/g	0.31	RN not ingrown
SC-00511-S	12/06/95	Ra-226	0.75	1.70	pCi/g	0.28	RN not ingrown
SC-00512-S	12/06/95	Ra-226	0.98	2.22	pCi/g	0.28	RN not ingrown
SC-00512-C	12/06/95	Ra-226	0.98	2.22	pCi/g	0.37	RN not ingrown
SC-00513-S	12/06/95	Ra-226	0.79	1.79	pCi/g	0.24	RN not ingrown
SC-00514-S	12/06/95	Ra-226	1.07	2.43	pCi/g	0.30	RN not ingrown
SC-00515-S	12/06/95	Ra-226	0.79	1.79	pCi/g	0.24	RN not ingrown
SC-00515-C	12/06/95	Ra-226	1.02	2.32	pCi/g	0.33	RN not ingrown
SC-00517-S		Ra-226	Not Sampled				
SC-00518-S		Ra-226	Not Sampled				
SC-00519-S		Ra-226	Not Sampled				
SC-00520-S		Ra-226	Not Sampled				
SC-00521-S		Ra-226	Not Sampled				
SC-00524-C		Ra-226	Not Sampled				
SC-00525-S	12/06/95	Ra-226	0.97	2.20	pCi/g	0.31	RN not ingrown
SC-00526-S	12/06/95	Ra-226	0.88	2.00	pCi/g	0.27	RN not ingrown
SC-00513-S	12/06/95	Ra-226	2.06	4.68	pCi/g	0.44	RN not ingrown
SC-00514-S	12/06/95	Ra-226	1.31	2.97	pCi/g	0.32	RN not ingrown
SC-00515-S	12/06/95	Ra-226	0.92	2.09	pCi/g	0.37	RN not ingrown
SC-00516-S	12/06/95	Ra-226	1.14	2.59	pCi/g	0.26	RN not ingrown
SC-00620-S	12/06/95	Ra-226	0.80	1.82	pCi/g	0.28	RN not ingrown
SC-00621-S	12/06/95	Ra-226	1.13	2.57	pCi/g	0.24	RN not ingrown
SC-00623-S	12/06/95	Ra-226	1.19	2.70	pCi/g	0.32	RN not ingrown
SC-00502-S	12/06/95	Lead	25.0	N/A	mg/kg	0.10	None
SC-00502-C	12/06/95	Lead	27.2	N/A	mg/kg	0.097	None
SC-00503-S	12/06/95	Lead	29.2	N/A	mg/kg	0.095	None
SC-00505-S	12/06/95	Lead	24.5	N/A	mg/kg	0.087	None
SC-00505-C	12/06/95	Lead	31.7	N/A	mg/kg	0.099	None
SC-00506-S	12/06/95	Lead	29.7	N/A	mg/kg	0.092	None
SC-00512-C	12/06/95	Lead	26.1	N/A	mg/kg	0.096	None
SC-00501-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00502-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00502-C	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00503-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00504-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00505-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00505-C	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00506-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00507-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00508-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00510-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00511-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00512-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00512-C	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00513-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00514-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00515-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00515-C	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00517-S	Not Sampled	TNT		N/A	mg/kg	0.5	None
SC-00518-S	Not Sampled	TNT		N/A	mg/kg	0.5	None
SC-00519-S	Not Sampled	TNT		N/A	mg/kg	0.5	None
SC-00520-S	Not Sampled	TNT		N/A	mg/kg	0.5	None
SC-00521-S	Not Sampled	TNT		N/A	mg/kg	0.5	None
SC-00524-C	Not Sampled	TNT		N/A	mg/kg	0.5	None
SC-00525-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00526-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00613-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00614-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00615-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00616-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00620-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00621-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00623-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP-253 2. Date: 3/4/96 3. Review Form #: 26009

4. Remediation Unit Number: R004 5. Confirmation Unit Number: 11006 (map attached)

6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb Tl
(Substrate)

7. Results average below ALARA goal(s)? Yes No

8. All results below cleanup criteria? Yes No

9. Any results greater than 3X criteria? Yes No

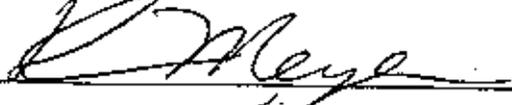
10. Hotspots present (less than 3X criteria)? Yes No

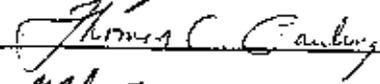
Parameter	Size	Concentration	Complies with Plan?
			<u> </u> Yes <u> </u> No
			<u> </u> Yes <u> </u> No
			<u> </u> Yes <u> </u> No
			<u> </u> Yes <u> </u> No

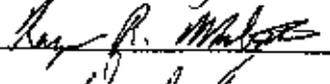
11. Reviewer: CEMIL KISH  Date: 3/4/96

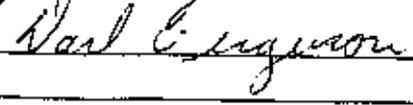
12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section I);
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

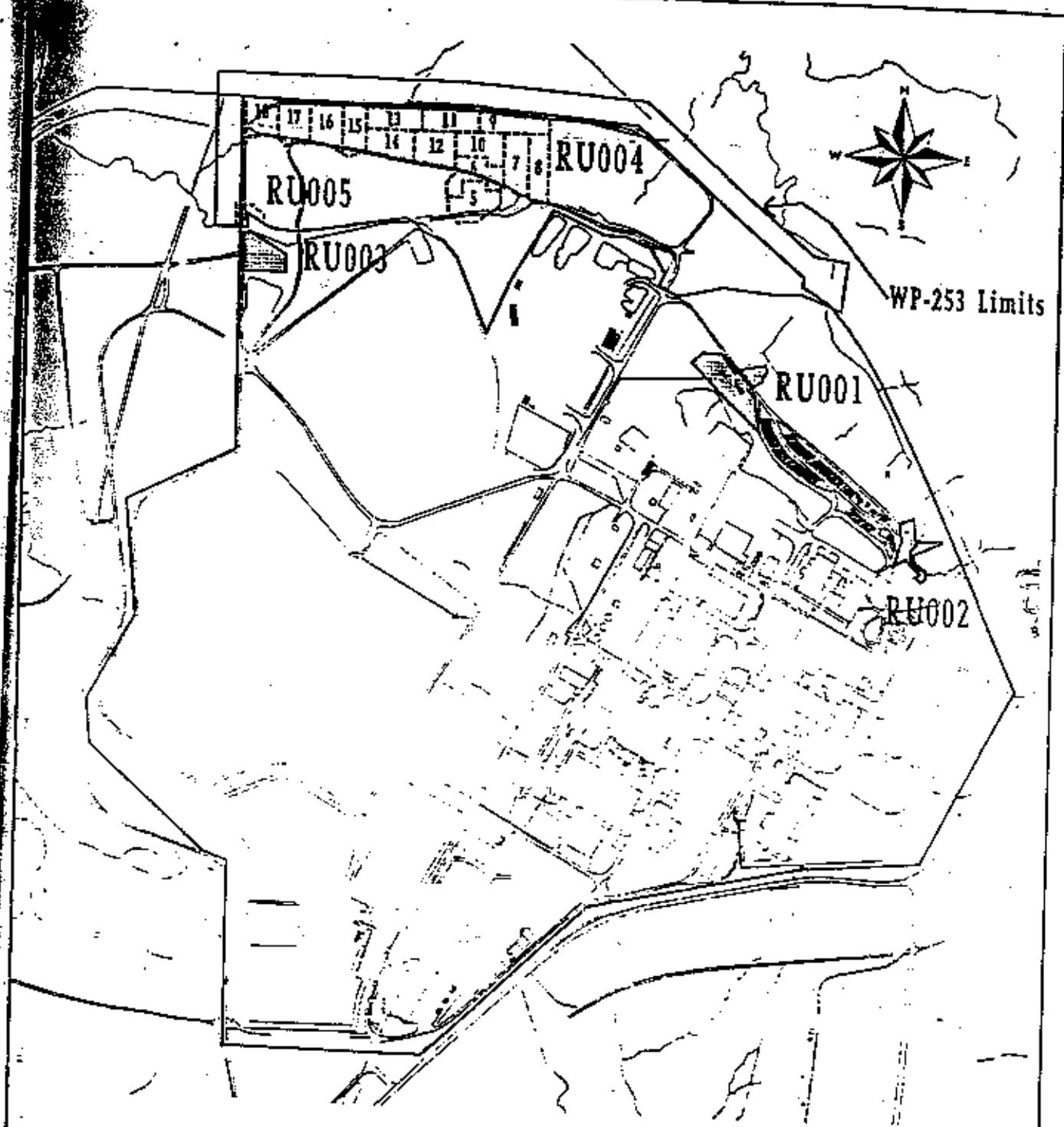
14. ES&H Manager:  Date: 3/6/96

15. DOE Project Manager/Engineer:  Date: 3/6/96

16. Project Manager:  Date: 3/6/96

17. Construction Engineer:  Date: 3/6/96

SEE ATTACHED RESULTS AND MAP



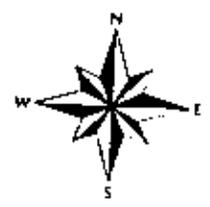
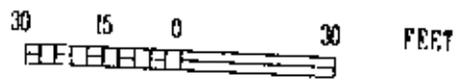
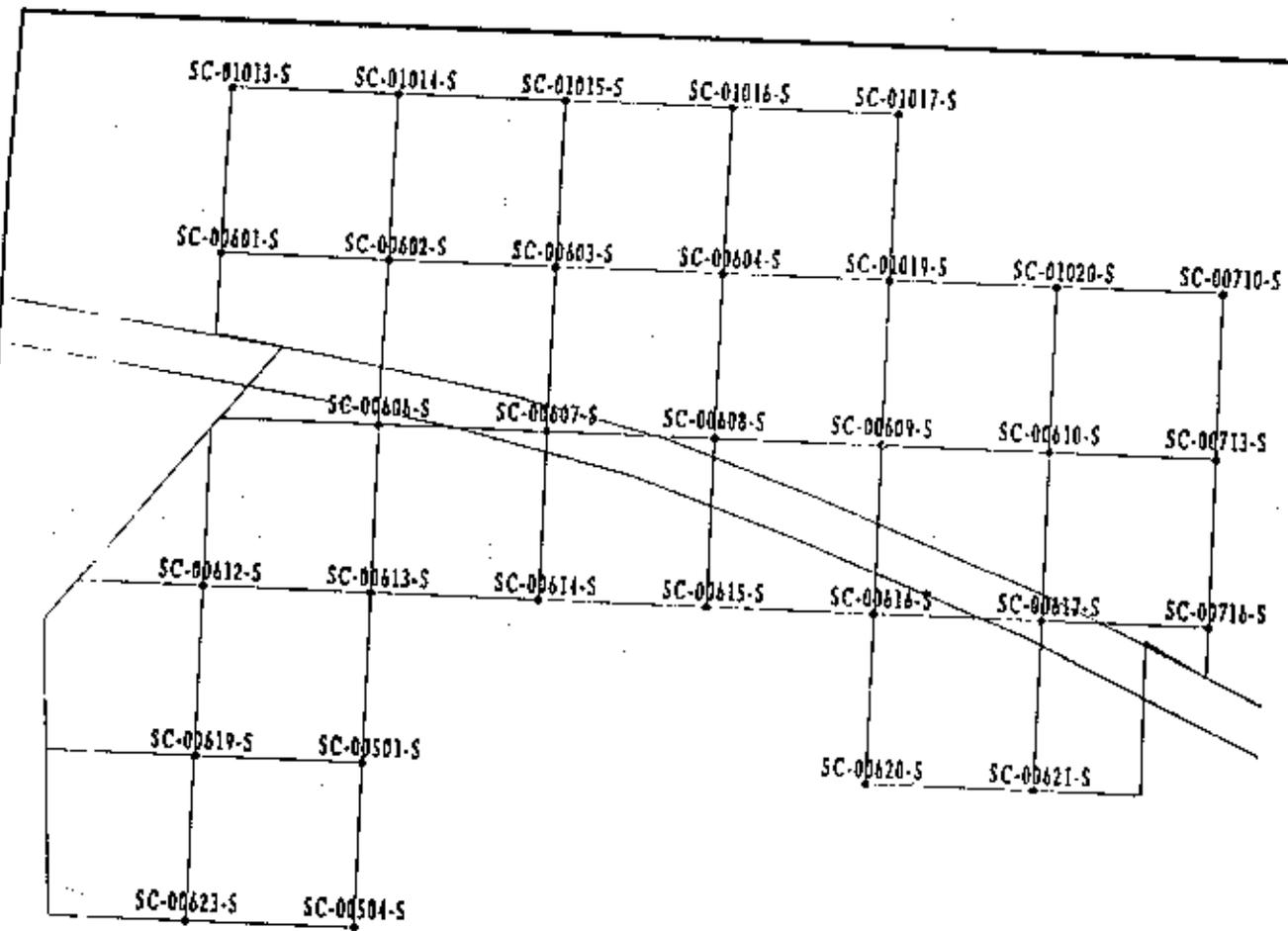
LEGEND

-  Confirmed RUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Containment Cells

100 50 0 100 200 METERS

100 150 0 300 600 FEET

<h2>Location of Remedial Units</h2>	
<h3>Figure 1-1</h3>	
EXHIBIT NO.:	REPORT NO. DOE/OR/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS
DATE: 9/95	



Sample Locations in Remedial Unit RU004 Confirmation Unit CU006	
Figure 2-2	
EXHIBIT NO.: A/DC/024/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGI	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU006

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	
SC-00601-S	12/07/95	Ra-226	1.21	2.75	1.42	pCi/g	0.34	Final Result	
SC-00602-S	12/07/95	Ra-226	1.29	2.99	1.67	pCi/g	0.33	Final Result	
SC-00603-S	12/07/95	Ra-226	1.05	2.38	1.62	pCi/g	0.29	Final Result	
SC-00604-S	12/07/95	Ra-226	0.95	2.16	1.51	pCi/g	0.31	Final Result	
SC-00606-S	02/28/96	Ra-226	0.99	2.25		pCi/g	0.29	RN not ingrown	
SC-00607-S	02/28/96	Ra-226	0.98	2.11		pCi/g	0.29	RN not ingrown	
SC-00608-S	02/28/96	Ra-226	0.93	2.11		pCi/g	0.25	RN not ingrown	
SC-00609-S	12/07/95	Ra-226	0.89	2.02	1.42	pCi/g	0.32	Final Result	
SC-00610-S	12/07/95	Ra-226	0.76	1.73	1.38	pCi/g	0.31	Final Result	
SC-00612-S	12/06/95	Ra-226	1.09	2.27	1.44	pCi/g	0.29	Final Result	
SC-00613-S	12/06/95	Ra-226	2.08	4.66	2.36	pCi/g	0.40	Final Result	
SC-00614-S	12/06/95	Ra-226	1.31	2.97	1.65	pCi/g	0.36	Final Result	
SC-00615-S	12/06/95	Ra-226	0.92	2.09	1.58	pCi/g	0.39	Final Result	
SC-00617-S	12/06/95	Ra-226	1.14	2.59	1.2	pCi/g	0.31	Final Result	
SC-00619-S	02/28/96	Ra-226	0.95	2.16		pCi/g	0.22	RN not ingrown	
SC-00620-S	12/06/95	Ra-226	0.90	1.82	1.25	pCi/g	0.31	Final Result	
SC-00621-S	12/06/95	Ra-226	1.13	2.57	1.38	pCi/g	0.27	Final Result	
SC-00623-S	12/06/95	Ra-226	1.19	2.7	1.57	pCi/g	0.36	Final Result	
					MAXIMUM Ra-226	2.36			
					AVERAGE Ra-226	1.42			
SC-00501-S	12/06/95	Ra-226	1.17	2.69	1.62	pCi/g	0.39	Final Result	
SC-00504-S	12/06/95	Ra-226	0.95	2.15	1.74	pCi/g	0.39	Final Result	
SC-00710-S	12/06/95	Ra-226	0.74	1.68	1.21	pCi/g	0.32	Final Result	
SC-00713-S	12/06/95	Ra-226	0.92	2.05	1.42	pCi/g	0.36	Final Result	
SC-00715-S	12/06/95	Ra-226	1.42	3.22	2.25	pCi/g	0.29	Final Result	
SC-01013-S	12/07/95	Ra-226	0.99	2.22		pCi/g	0.27	RN not ingrown	
SC-01014-S	12/07/95	Ra-226	1.47	3.34		pCi/g	0.29	RN not ingrown	
SC-01015-S	12/07/95	Ra-226	1.14	2.59		pCi/g	0.25	RN not ingrown	
SC-01016-S	12/07/95	Ra-226	1.04	2.36		pCi/g	0.31	RN not ingrown	
SC-01017-S	12/07/95	Ra-226	1.37	3.11		pCi/g	0.30	RN not ingrown	
SC-01019-S	12/07/95	Ra-226	1.04	2.36		pCi/g	0.33	RN not ingrown	
SC-01020-S	12/07/95	Ra-226	0.92	2.09		pCi/g			
SC-00601-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00602-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00603-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00604-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00606-S	02/28/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00607-S	02/28/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00608-S	02/28/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00609-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00610-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00612-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00613-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00614-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00615-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00616-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00617-S	02/28/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00619-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00620-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00621-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00623-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00501-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00504-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00710-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00713-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00715-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01013-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01014-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01015-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01016-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01017-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01019-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01020-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	

PARTIAL CONFIRMATION UNIT RELEASE FORM

ES&H-1.2.1, 12/95

SECTION I

1. Work Package Number: WP253 2. Date: 02/12/96 3. Review Form No.: 96-002

4. Remediation Unit Number: RU004 5. Confirmation Unit Number (see attached map): CU006

6. Contaminants of Concern: U238 Th230 Th232 RA226 Ra228 TNT (screening)
 TI PCB PAH As Cr Pb

7. Number of Samples Collected: 27

8. Total Number of Samples for CU: 31

9. Any results exceed criteria? Yes (requires additional remediation) No

10. Results average below ALARA goals? Yes No (requires additional remediation)

11. Reviewer: Mel A. Lutz Date: 02/12/96

12. Reviewer Disposition Recommendation: Release for Unrestricted Use Additional Excavation Required

SECTION II

I, Ken Meyer, agree with the above recommendation for this partial CU.

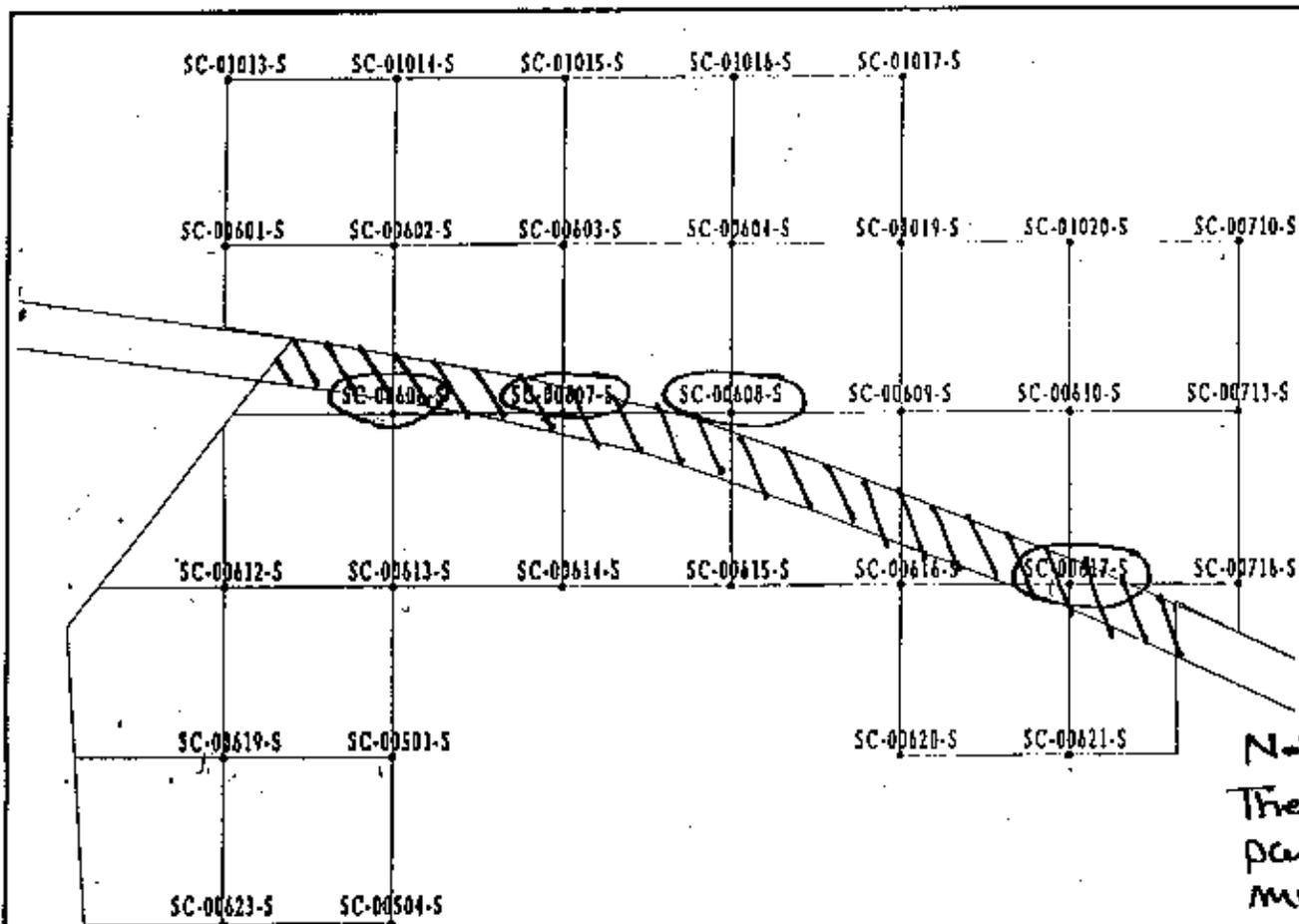
ALARA Committee Chairman: [Signature] Date: 2/13/96

SECTION III

Project Manager: [Signature] Date: 2-13-96

Construction Engineer: [Signature] Date: 2/13/96

Areas not included in the partial release have been noted on the attached figure. The remediated vs. unremediated areas of CU006 have been physically separated in the field.



Note 1

The following locations are not part of this partial release and must be collected before final release of the entire CU:

SC-00606-S, 607-S, 608-S, & 617-S

Note 2:

In addition, this release does not cover the road which must be removed, walked over, & sampled (See above Note 1). This must be done prior to release of the entire CU.

Sample Locations in Remedial Unit RU004
Confirmation Unit CU006

Figure 2-2

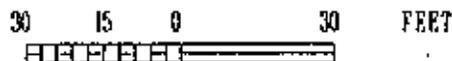
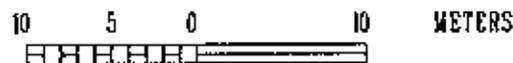


EXHIBIT NO.: A/JDC/024/0895	REPORT NO.: DOE/0R/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

P96-002
02/12/96

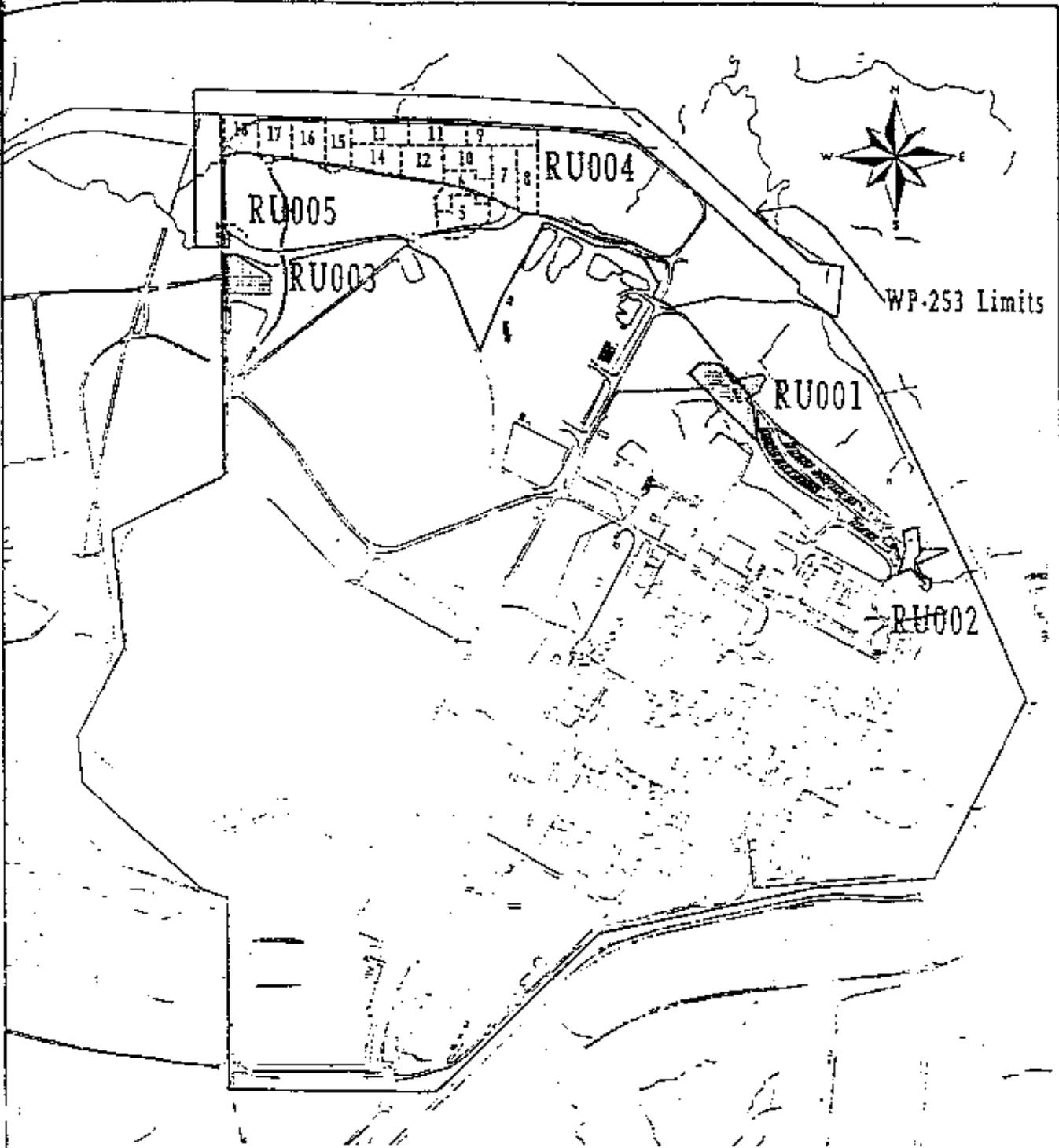
Soil Confirmation Results for CU006

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS
SC-00601-S	12/07/95	Ra-226	1.21	2.75	1.42	pCi/g	0.34	Final Result
SC-00602-S	12/07/95	Ra-226	1.29	2.93	1.67	pCi/g	0.34	Final Result
SC-00603-S	12/07/95	Ra-226	1.05	2.36	1.62	pCi/g	0.29	Final Result
SC-00604-S	12/07/95	Ra-226	0.95	2.16	1.51	pCi/g	0.31	Final Result
SC-00605-S	Not Sampled	Ra-226				pCi/g		RN not ingrown
SC-00607-S	Not Sampled	Ra-226				pCi/g		RN not ingrown
SC-00608-S	Not Sampled	Ra-226				pCi/g		RN not ingrown
SC-00609-S	12/07/95	Ra-226	0.80	2.02	1.42	pCi/g	0.32	Final Result
SC-00610-S	12/07/95	Ra-226	0.78	1.73	1.36	pCi/g	0.31	Final Result
SC-00612-S	12/06/95	Ra-226	1.00	2.27	1.44	pCi/g	0.29	Final Result
SC-00613-S	12/06/95	Ra-226	2.06	4.68	2.36	pCi/g	0.40	Final Result
SC-00614-S	12/06/95	Ra-226	1.31	2.97	1.65	pCi/g	0.36	Final Result
SC-00615-S	12/06/95	Ra-226	0.92	2.09	1.59	pCi/g	0.39	Final Result
SC-00618-S	12/06/95	Ra-226	1.14	2.59	1.20	pCi/g	0.31	Final Result
SC-00617-S	Not Sampled	Ra-226				pCi/g		RN not ingrown
SC-00619-S	12/07/95	Ra-226	0.95	2.19	1.53	pCi/g	0.31	Final Result
SC-00620-S	12/06/95	Ra-226	0.80	1.82	1.25	pCi/g	0.27	Final Result
SC-00621-S	12/06/95	Ra-226	1.13	2.57	1.38	pCi/g	0.40	Final Result
SC-00623-S	12/06/95	Ra-226	1.19	2.70	1.57	pCi/g	0.36	Final Result
SC-00501-S	12/06/95	Ra-226	1.17	2.66	1.62	pCi/g	0.36	Final Result
SC-00504-S	12/06/95	Ra-226	0.95	2.16	1.74	pCi/g	0.33	Final Result
SC-00710-S	12/06/95	Ra-226	0.74	1.66	1.21	pCi/g	0.32	Final Result
SC-00713-S	12/06/95	Ra-226	0.62	2.09	1.42	pCi/g	0.36	Final Result
SC-00716-S	12/06/95	Ra-226	1.42	3.22	2.25	pCi/g	0.29	Final Result
SC-01013-S	12/07/95	Ra-226	0.98	2.22		pCi/g	0.27	RN not ingrown
SC-01014-S	12/07/95	Ra-226	1.47	3.34		pCi/g	0.26	RN not ingrown
SC-01015-S	12/07/95	Ra-226	1.14	2.50		pCi/g	0.36	RN not ingrown
SC-01016-S	12/07/95	Ra-226	1.04	2.38		pCi/g	0.25	RN not ingrown
SC-01017-S	12/07/95	Ra-226	1.37	3.11		pCi/g	0.31	RN not ingrown
SC-01019-S	12/07/95	Ra-226	1.04	2.36		pCi/g	0.30	RN not ingrown
SC-01020-S	12/07/95	Ra-226	0.92	2.09		pCi/g	0.33	RN not ingrown
SC-00601-S	12/07/95	U-238	ND	N/A	N/A	pCi/g	4.21	Final Result
SC-01013-S	12/07/95	U-238	ND	N/A	N/A	pCi/g	4.14	Final Result
SC-00601-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00602-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00603-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00604-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00606-S	Not Sampled	TNT		N/A	N/A	mg/kg		
SC-00607-S	Not Sampled	TNT		N/A	N/A	mg/kg		
SC-00608-S	Not Sampled	TNT		N/A	N/A	mg/kg		
SC-00609-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00610-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00612-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00613-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00614-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00615-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00616-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00617-S	Not Sampled	TNT		N/A	N/A	mg/kg		
SC-00619-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00620-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00621-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00623-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00501-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00504-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00710-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00713-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00716-S	12/06/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-01013-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-01014-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-01015-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-01016-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-01017-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-01019-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-01020-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None

SOIL REMEDIATION DISPOSITION FORM

SECTION I			
1. Work Package Number: <u>253</u>	2. Date: <u>12/13/95</u>	3. Review Form #: <u>95-007</u>	
4. Remediation Unit Number: <u>R0004</u>	5. Confirmation Unit Number: <u>C0007</u> (map attached)		
6. Contaminants of Concern: <u>U-238</u> <u>Th-230</u> <u>Th-232</u> <input checked="" type="checkbox"/> <u>Ra-226</u> <u>Ra-228</u> <u>TNT</u> <u>PCB</u> <u>PAH</u> <u>As</u> <u>Cr</u> <u>Pb</u> <u>Tl</u>			
7. Results average below ALARA goal(s)? <u>Avg [Ra-226] = 2.13 pCi/g</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
8. All results below cleanup criteria?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
9. Any results greater than 3X criteria?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
10. Hotspots present (less than 3X criteria)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Parameter	Size	Concentration	Complies with Plan?
<u>N/A</u>			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
11. Reviewer: <u>Mel A. Stutz</u> Date: <u>12/13/95</u>			
12. Reviewer Disposition Recommendation: <input checked="" type="checkbox"/> Release for Unrestricted Use (Section II) <input type="checkbox"/> Additional Excavation Required (Section IV) <input type="checkbox"/> ALARA Committee Required (Section III)			
SECTION II			
<i>Results are ALARA. CU is released for unrestricted use.</i>			
14. ES&H Manager: <u>[Signature]</u>	Date: <u>12/13/95</u>		
15. DOE Project Manager/Engineer: <u>[Signature]</u>	Date: <u>12/15/95</u>		
16. Project Manager: <u>[Signature]</u>	Date: <u>12/14/95</u>		
17. Construction Engineer: <u>[Signature]</u>	Date: <u>12/14/95</u>		

ATTACH RESULTS AND MAP



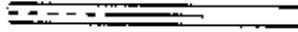
LEGEND

-  Confirmed EUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Contamination Limit

100 50 0 100 200 METERS



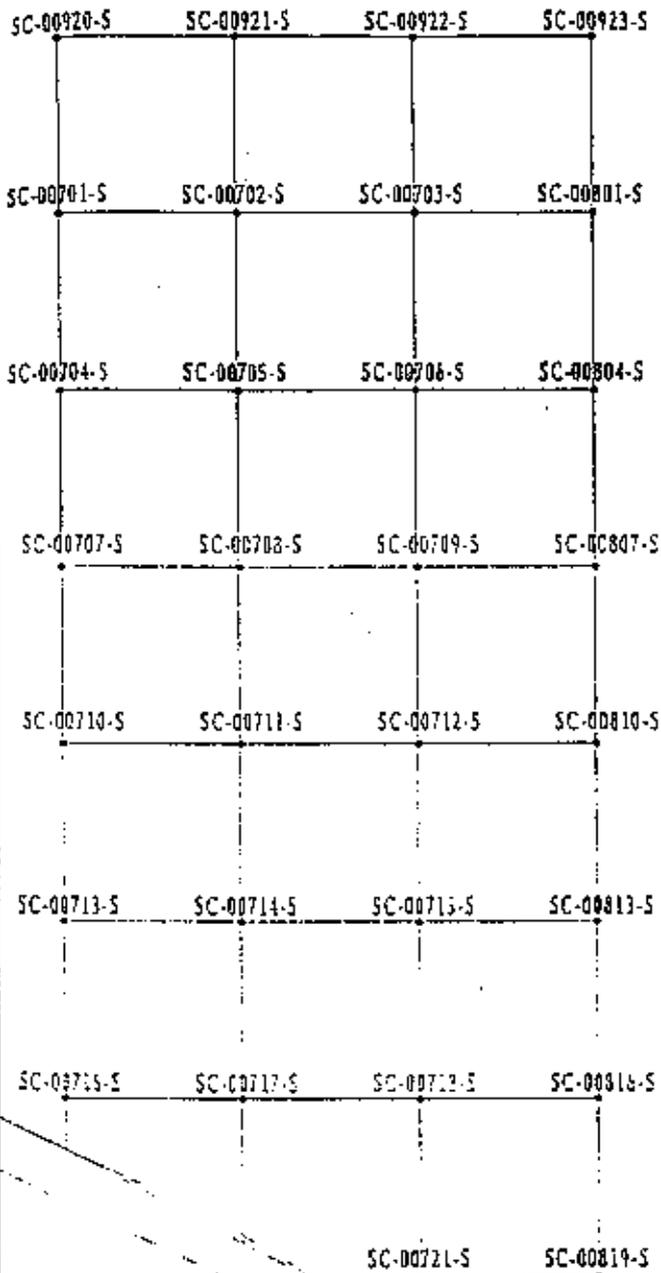
100 150 0 300 500 FEET



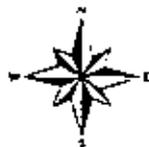
Location of Remedial Units

Figure 1-1

EXHIBIT NO.:	REPORT NO.:	DOE/OR/21548-365
ORIGINATOR:	ORIGIN BY:	DATE:
MGL	WSSRAP GIS	9/95



Total of 30 Samples



10 5 0 METERS

30 15 0 FEET

Sample Locations in Remedial Unit RU004
Confirmation Unit CU007

Figure 2-3

PROJECT NO.:	AIDC/025/0895	REPORT NO.:	DOE/OR/31548-565
ORIGINATOR:	MGL	DRAWN BY:	WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU007

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	UNITS	DL	COMMENTS
SC-00701-S	12/05/95	Ra-226	1.16	2.63	pCi/g	0.24	RN not ingrown
SC-00702-S	12/05/95	Ra-226	0.79	1.79	pCi/g	0.30	RN not ingrown
SC-00703-S	12/05/95	Ra-226	0.83	1.88	pCi/g	0.26	RN not ingrown
SC-00704-S	12/05/95	Ra-226	0.79	1.79	pCi/g	0.45	RN not ingrown
SC-00705-S	12/05/95	Ra-226	0.94	2.13	pCi/g	0.27	RN not ingrown
SC-00706-S	12/05/95	Ra-226	1.09	2.47	pCi/g	0.29	RN not ingrown
SC-00707-S	12/05/95	Ra-226	1.39	3.15	pCi/g	0.33	RN not ingrown
SC-00708-S	12/05/95	Ra-226	0.64	1.91	pCi/g	0.24	RN not ingrown
SC-00709-S	12/05/95	Ra-226	0.98	2.22	pCi/g	0.33	RN not ingrown
SC-00710-S	12/05/95	Ra-226	0.74	1.68	pCi/g	0.41	RN not ingrown
SC-00711-S	12/05/95	Ra-226	1.01	2.29	pCi/g	0.39	RN not ingrown
SC-00712-S	12/05/95	Ra-226	1.02	2.32	pCi/g	0.27	RN not ingrown
SC-00713-S	12/05/95	Ra-226	0.92	2.09	pCi/g	0.23	RN not ingrown
SC-00714-S	12/05/95	Ra-226	0.95	2.18	pCi/g	0.30	RN not ingrown
SC-00715-S	12/05/95	Ra-226	0.75	1.70	pCi/g	0.42	RN not ingrown
SC-00716-S	12/05/95	Ra-226	1.42	3.22	pCi/g	0.44	RN not ingrown
SC-00717-S	12/05/95	Ra-226	0.95	2.16	pCi/g	0.25	RN not ingrown
SC-00718-S	12/05/95	Ra-226	0.90	2.04	pCi/g	0.24	RN not ingrown
SC-00721-S	12/05/95	Ra-226	0.96	2.15	pCi/g	0.28	RN not ingrown
SC-00801-S	12/01/95	Ra-226	0.79	1.79	pCi/g	0.35	RN not ingrown
SC-00804-S	12/01/95	Ra-226	0.81	1.84	pCi/g	0.28	RN not ingrown
SC-00807-S	12/01/95	Ra-226	1.02	2.32	pCi/g	0.28	RN not ingrown
SC-00810-S	12/01/95	Ra-226	0.99	2.25	pCi/g	0.30	RN not ingrown
SC-00813-S	12/01/95	Ra-226	0.97	2.20	pCi/g	0.25	RN not ingrown
SC-00816-S	12/01/95	Ra-226	0.97	2.20	pCi/g	0.36	RN not ingrown
SC-00819-S	12/01/95	Ra-226	0.97	2.20	pCi/g	0.28	RN not ingrown
SC-00920-S	12/05/95	Ra-226	0.75	1.70	pCi/g	0.38	RN not ingrown
SC-00921-S	12/05/95	Ra-226	0.94	2.13	pCi/g	0.25	RN not ingrown
SC-00922-S	12/05/95	Ra-226	0.74	1.68	pCi/g	0.24	RN not ingrown
SC-00923-S	12/05/95	Ra-226	0.60	1.82	pCi/g	0.25	RN not ingrown

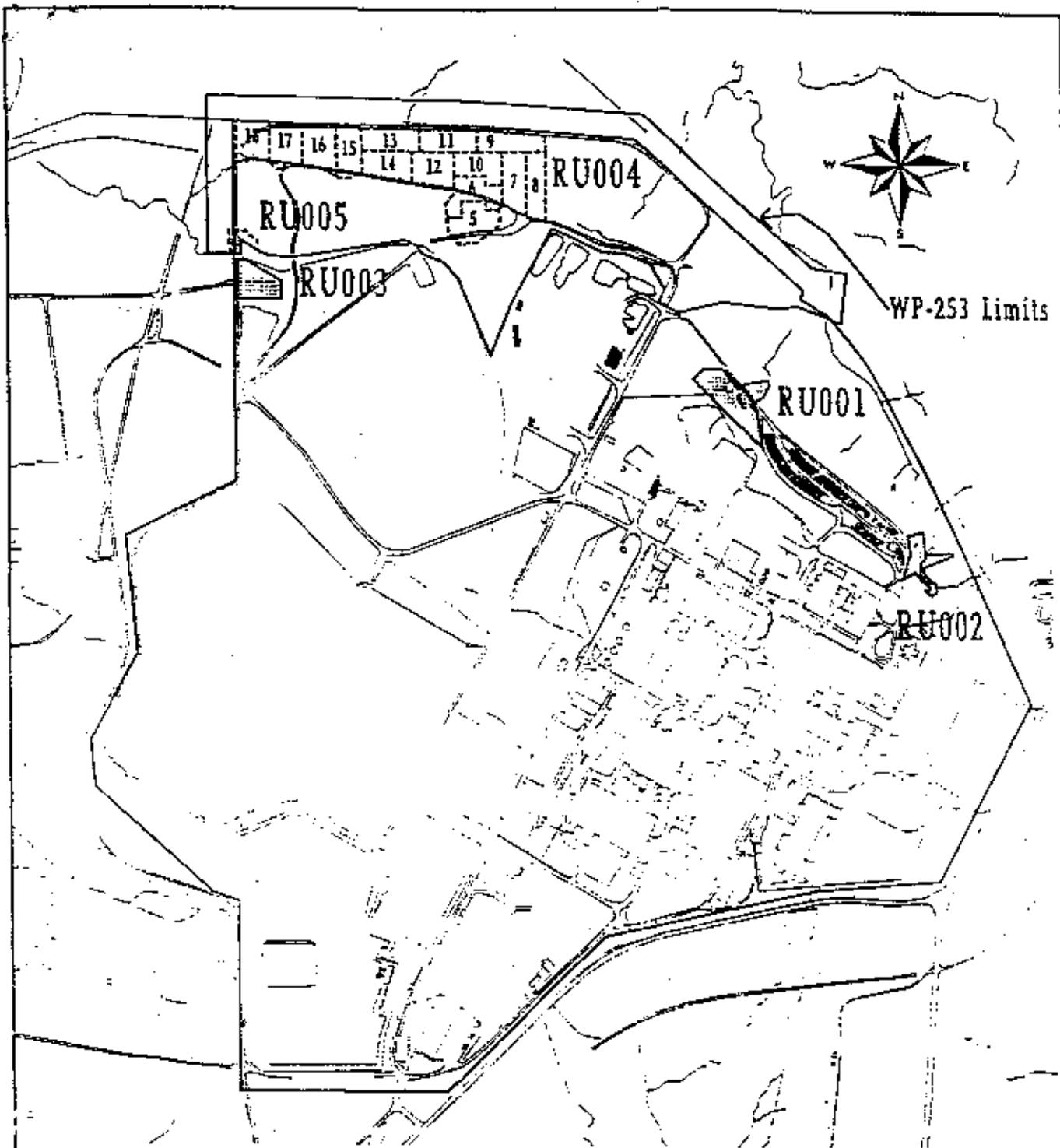
Weldon Spring Site Remedial Action Project
7295 Highway 94 South, St. Charles, Missouri, 63304

ES&H-1.2.1, 10/95
Page 1 of 2

SOIL REMEDIATION DISPOSITION FORM

SECTION I			
1. Work Package Number: <u>253</u>	2. Date: <u>12/5/95</u>	3. Review Form #: <u>95-005</u>	
4. Remediation Unit Number: <u>RU004</u>	5. Confirmation Unit Number: <u>CU008</u> (map attached)		
6. Contaminants of Concern: <u>U-238</u> <u>Th-230</u> <u>Th-232</u> <input checked="" type="checkbox"/> <u>Ra-226</u> <u>Ra-228</u> <u>TNT</u> <u>PCB</u> <u>PAH</u> <u>As</u> <u>Cr</u> <u>Pb</u> <u>Tl</u>			
7. Results average below ALARA goal(s)? <u>Average [Ra-226] = 2.07 pCi/g</u>			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8. All results below cleanup criteria?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9. Any results greater than 3X criteria?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
10. Hotspots present (less than 3X criteria)?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Parameter	Size	Concentration	Complies with Plan?
<u>N/A</u>			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
11. Reviewer: <u>Melvin A. Smith</u>			Date: <u>12/5/95</u>
12. Reviewer Disposition Recommendation: <input checked="" type="checkbox"/> Release for Unrestricted Use (Section II) <input type="checkbox"/> Additional Excavation Required (Section IV) <input type="checkbox"/> ALARA Committee Required (Section III)			
SECTION II			
<i>Results are ALARA. CU is released for unrestricted use.</i>			
14. ES&H Manager: <u>[Signature]</u>			Date: <u>12/5/95</u>
15. DOE Project Manager/Engineer: <u>[Signature]</u>			Date: <u>12/12/95</u>
16. Project Manager: <u>[Signature]</u>			Date: <u>12/14/95</u>
17. Construction Engineer: <u>[Signature]</u>			Date: <u>12/14/95</u>

ATTACH RESULTS AND MAP

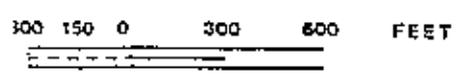
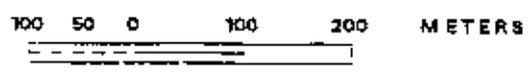


L E G E N D

Confirmed RUs under previous Work Packages

WP 253 Boundary

WP 253 Contamination Cells



Location of Remedial Units

Figure 1-1

PROJECT NO.:	REPORT NO.:
ORIGINATOR: MGI	DOE/OR/21548-565
DRAWN BY: WSSRAP GIS	DATE: 9/95

Soil Confirmation Results for CU008

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	-UNITS	DL	COMMENTS
SC-00801-S	12/01/95	Ra-226	0.79	1.79	pCi/g	0.35	RN not ingrown
SC-00802-C	12/01/95	Ra-226	1.07	2.43	pCi/g	0.28	RN not ingrown
SC-00802-S	12/01/95	Ra-226	0.81	1.84	pCi/g	0.28	RN not ingrown
SC-00803-S	12/01/95	Ra-226	0.89	2.02	pCi/g	0.31	RN not ingrown
SC-00804-S	12/01/95	Ra-226	0.81	1.84	pCi/g	0.28	RN not ingrown
SC-00805-S	12/01/95	Ra-226	0.81	1.84	pCi/g	0.29	RN not ingrown
SC-00806-S	12/01/95	Ra-226	0.97	2.20	pCi/g	0.23	RN not ingrown
SC-00807-S	12/01/95	Ra-226	1.02	2.32	pCi/g	0.28	RN not ingrown
SC-00808-S	12/01/95	Ra-226	0.89	2.02	pCi/g	0.27	RN not ingrown
SC-00809-S	12/01/95	Ra-226	0.73	1.68	pCi/g	0.34	RN not ingrown
SC-00810-S	12/01/95	Ra-226	0.89	2.25	pCi/g	0.30	RN not ingrown
SC-00811-S	12/01/95	Ra-226	0.90	2.25	pCi/g	0.32	RN not ingrown
SC-00812-S	12/01/95	Ra-226	0.79	1.79	pCi/g	0.31	RN not ingrown
SC-00813-S	12/01/95	Ra-226	0.97	2.20	pCi/g	0.25	RN not ingrown
SC-00814-S	12/01/95	Ra-226	0.81	1.84	pCi/g	0.29	RN not ingrown
SC-00815-S	12/01/95	Ra-226	0.78	1.77	pCi/g	0.26	RN not ingrown
SC-00816-S	12/01/95	Ra-226	0.97	2.20	pCi/g	0.38	RN not ingrown
SC-00817-S	12/01/95	Ra-226	0.93	2.11	pCi/g	0.24	RN not ingrown
SC-00818-S	12/01/95	Ra-226	0.91	2.07	pCi/g	0.36	RN not ingrown
SC-00819-C	12/01/95	Ra-226	0.80	1.82	pCi/g	0.37	RN not ingrown
SC-00819-S	12/01/95	Ra-226	0.97	2.20	pCi/g	0.28	RN not ingrown
SC-00820-S	12/01/95	Ra-226	1.24	2.81	pCi/g	0.30	RN not ingrown
SC-00821-S	12/01/95	Ra-226	0.91	2.07	pCi/g	0.29	RN not ingrown
SC-00823-S	12/01/95	Ra-226	1.05	2.38	pCi/g	0.29	RN not ingrown
SC-00824-S	12/01/95	Ra-226	1.08	2.45	pCi/g	0.35	RN not ingrown
SC-00823-S	12/05/95	Ra-226	0.80	1.82	pCi/g	0.25	RN not ingrown
SC-00824-S	12/05/95	Ra-226	0.92	2.08	pCi/g	0.24	RN not ingrown
SC-00825-S	12/05/95	Ra-226	0.85	1.93	pCi/g	0.32	RN not ingrown

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP253 2. Date: 01-29-96 3. Review Form #: 95-000a

4. Remediation Unit Number: RU004 5. Confirmation Unit Number: CU009 (map attached)

6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb Tl
Screening

7. Results average below ALARA goal(s)? Ra-226 Avg = 1.33 pCi/g & TNT Avg < 0.5 mg/kg Yes No

8. All results below cleanup criteria? Yes No

9. Any results greater than 3X criteria? Yes No

10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
			<u> </u> Yes <u> </u> No
			<u> </u> Yes <u> </u> No
			<u> </u> Yes <u> </u> No
			<u> </u> Yes <u> </u> No

11. Reviewer: Mel A. Ditz Date: 1/29/96

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II) See comments below
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

14. ES&H Manager: [Signature] Date: 1/31/96

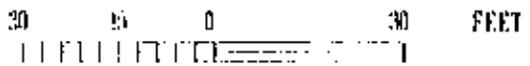
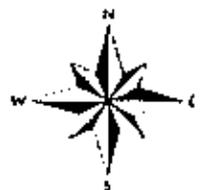
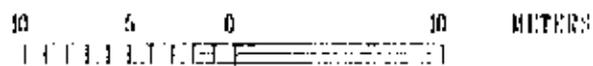
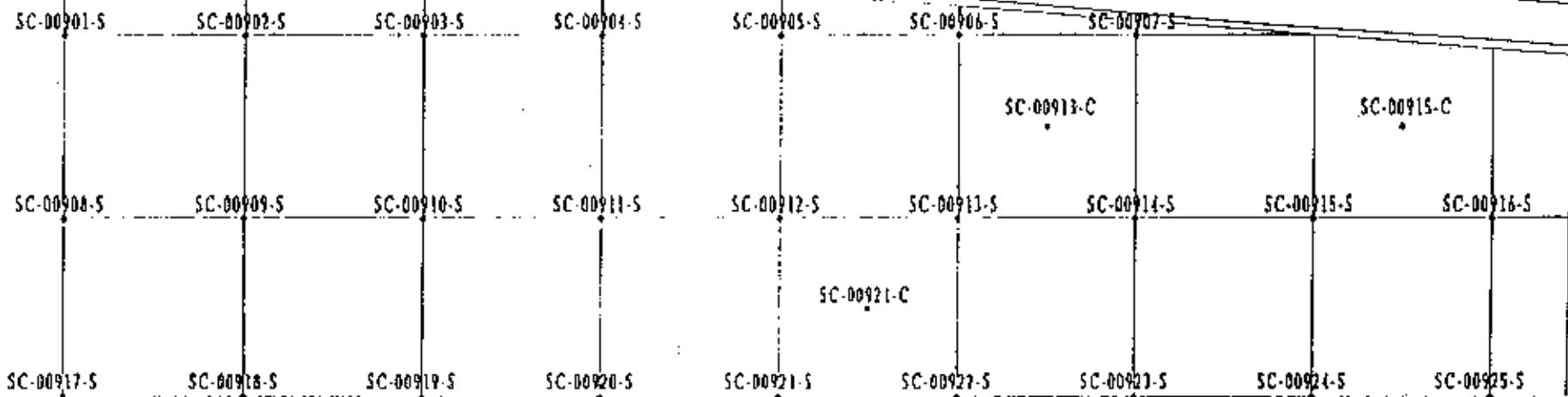
15. DOE Project Manager/Engineer: [Signature] Date: 1/31/96

16. Project Manager: [Signature] Date: 1/31/96

17. Construction Engineer: [Signature] Date: 1/31/96

SEE ATTACHED RESULTS AND MAP

Comments: Final Ra-226 results were received on 01/29/96. Based upon these final results (vs. the estimated final results used previously), CU009 no longer requires further excavation. No single sample exceeds Criteria and the average is less than ALARA. This form replaces RRUW Form # 95-001.



Sample Locations in Remedial Unit RU004 Confirmation Unit CU009		
Figure 2-5		
EXHIBIT NO.:	AIDC/027/0895	REPORT NO.:
ORIGINATOR:	MGL	DATE:
DRAWN BY:	WSSRAP GIS	8/95

95-0060
01-29-91

Soil Confirmation Results for CU009

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS
SC-00901-S	12/05/95	Ra-226	0.71	1.01	1.09	pCi/g	0.37	Final Results
SC-00902-S	12/05/95	Ra-226	0.87	1.07	1.19	pCi/g	0.18	Final Results
SC-00903-S	12/05/95	Ra-226	0.82	1.88	1.37	pCi/g	0.34	Final Results
SC-00904-S	12/05/95	Ra-226	1.12	2.54	1.19	pCi/g	0.32	Final Results
SC-00905-S	12/05/95	Ra-226	0.74	1.68	1.11	pCi/g	0.33	Final Results
SC-00906-S	12/05/95	Ra-226	0.48	1.04	0.84	pCi/g	0.31	Final Results
SC-00907-S	12/05/95	Ra-226	3.89	8.78	4.38	pCi/g	0.42	Final Results
SC-00908-S	12/05/95	Ra-226	1.15	3.01	1.13	pCi/g	0.31	Final Results
SC-00909-S	12/05/95	Ra-226	0.81	1.84	1.34	pCi/g	0.26	Final Results
SC-00910-S	12/05/95	Ra-226	0.99	2.25	1.32	pCi/g	0.22	Final Results
SC-00911-S	12/05/95	Ra-226	0.90	2.04	1.07	pCi/g	0.29	Final Results
SC-00912-S	12/05/95	Ra-226	0.74	1.68	1.28	pCi/g	0.21	Final Results
SC-00913-S	12/05/95	Ra-226	0.82	1.41	0.97	pCi/g	0.24	Final Results
SC-00913-C	12/05/95	Ra-226	0.48	1.04	1.27	pCi/g	0.27	Final Results
SC-00914-S	12/05/95	Ra-226	0.70	1.59	1.55	pCi/g	0.31	Final Results
SC-00915-S	12/05/95	Ra-226	0.75	1.70	1.43	pCi/g	0.29	Final Results
SC-00915-C	12/05/95	Ra-226	0.88	2.00	0.97	pCi/g	0.31	Final Results
SC-00916-S	12/05/95	Ra-226	0.88	2.00	1.31	pCi/g	0.31	Final Results
SC-00917-S	12/05/95	Ra-226	0.99	2.25	1.39	pCi/g	0.29	Final Results
SC-00918-S	12/05/95	Ra-226	0.80	1.82	1.42	pCi/g	0.28	Final Results
SC-00919-S	12/05/95	Ra-226	0.86	1.95	1.35	pCi/g	0.24	Final Results
SC-00920-S	12/05/95	Ra-226	0.75	1.70	1.21	pCi/g	0.33	Final Results
SC-00921-C	12/05/95	Ra-226	0.57	1.28	1.10	pCi/g	0.30	Final Results
SC-00921-S	12/05/95	Ra-226	0.94	2.13	1.14	pCi/g	0.31	Final Results
SC-00922-S	12/05/95	Ra-226	0.74	1.68	1.24	pCi/g	0.29	Final Results
SC-00923-S	12/05/95	Ra-226	0.80	1.82	1.28	pCi/g	0.34	Final Results
SC-00924-S	12/05/95	Ra-226	0.92	2.09	1.03	pCi/g	0.27	Final Results
SC-00925-S	12/05/95	Ra-226	0.85	1.93	1.25	pCi/g	0.31	Final Results
SC-00901-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00902-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00903-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00904-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00908-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00909-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00910-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00911-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00917-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00918-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00919-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None
SC-00920-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None

95-006a
01.29.96

SOIL REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP 253 2. Date: 12-15-95 3. Review Form #: 95-006

4. Remediation Unit Number: RU 004 5. Confirmation Unit Number: CU 009 (map attached)

6. Contaminants of Concern: U-238 Tb-230 Tb-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb Tl
Screening

7. Results average below ALARA goal(s)? Ra 226 Avg = 2.08 pCi/g + TNT Avg < 0.5 mg/kg Yes No

8. All results below cleanup criteria? See SC-00907-S Ra 226 Conc. = 8.76 pCi/g Yes No

9. Any results greater than 3X criteria? Yes No

10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
<u>Ra 226</u>	<u>greater than 25m²</u> <u>(see map for extent)</u>	<u>8.76 pCi/g</u>	<u> </u> Yes <input checked="" type="checkbox"/> No
			<u> </u> Yes <u> </u> No
			<u> </u> Yes <u> </u> No
			<u> </u> Yes <u> </u> No

11. Reviewer: Melissa H. Smith Date: 12/20/95

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

14. ES&H Manager: _____ Date: _____

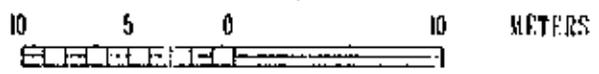
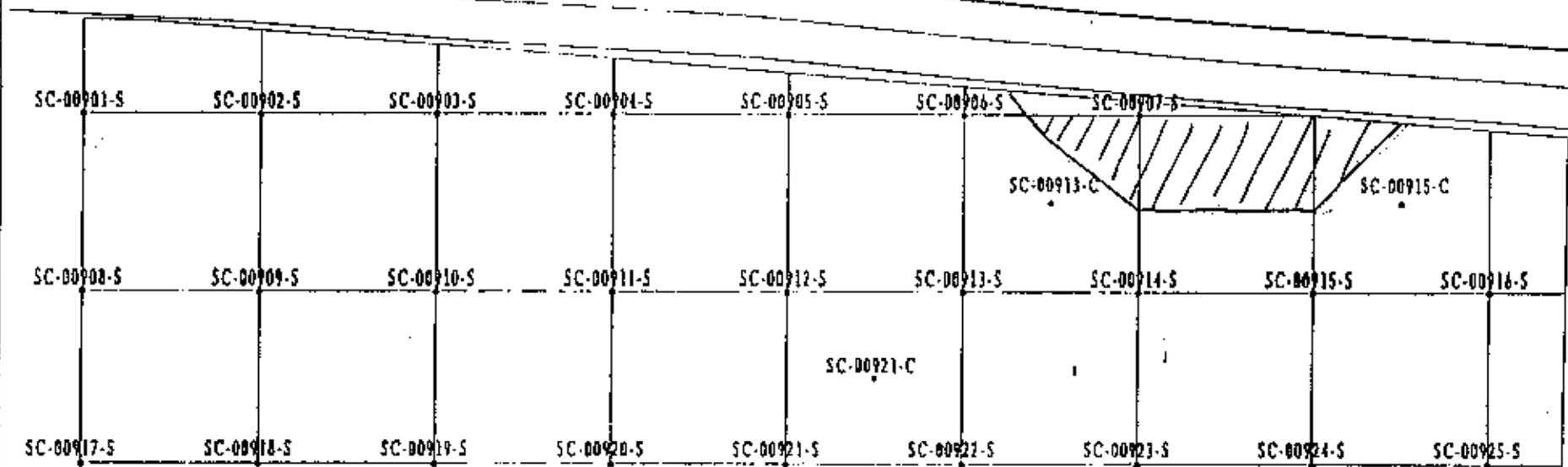
15. DOE Project Manager/Engineer: N/A Date: _____

16. Project Manager: _____ Date: _____

17. Construction Engineer: _____ Date: _____

ATTACH RESULTS AND MAP

Approx. area - Remove under (to depth at least 6").



Sample Locations in Remedial Unit RU004
Confirmation Unit CU009

Figure 2-5

EXHIBIT NO.: AIDC/027/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU009

WS5RAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	UNITS	DL	COMMENTS
SC-00901-S	12/05/95	Ra-226	0.71	1.61	pCi/g	0.30	RN not ingrown
SC-00902-S	12/05/95	Ra-226	0.87	1.97	pCi/g	0.25	RN not ingrown
SC-00903-S	12/05/95	Ra-226	0.82	1.86	pCi/g	0.32	RN not ingrown
SC-00904-S	12/05/95	Ra-226	1.12	2.54	pCi/g	0.21	RN not ingrown
SC-00905-S	12/05/95	Ra-226	0.74	1.68	pCi/g	0.22	RN not ingrown
SC-00906-S	12/05/95	Ra-226	0.46	1.04	pCi/g	0.29	RN not ingrown
SC-00907-S	12/05/95	Ra-226	3.86	8.76	pCi/g	0.34	RN not ingrown
SC-00908-S	12/05/95	Ra-226	1.15	2.61	pCi/g	0.38	RN not ingrown
SC-00909-S	12/05/95	Ra-226	0.81	1.84	pCi/g	0.26	RN not ingrown
SC-00910-S	12/05/95	Ra-226	0.99	2.25	pCi/g	0.26	RN not ingrown
SC-00911-S	12/05/95	Ra-226	0.90	2.04	pCi/g	0.21	RN not ingrown
SC-00912-S	12/05/95	Ra-226	0.74	1.68	pCi/g	0.19	RN not ingrown
SC-00913-S	12/05/95	Ra-226	0.62	1.41	pCi/g	0.26	RN not ingrown
SC-00913-C	12/05/95	Ra-226	0.46	1.04	pCi/g	0.26	RN not ingrown
SC-00914-S	12/05/95	Ra-226	0.70	1.59	pCi/g	0.26	RN not ingrown
SC-00915-S	12/05/95	Ra-226	0.75	1.70	pCi/g	0.31	RN not ingrown
SC-00915-C	12/05/95	Ra-226	0.88	2.00	pCi/g	0.28	RN not ingrown
SC-00916-S	12/05/95	Ra-226	0.88	2.00	pCi/g	0.28	RN not ingrown
SC-00917-S	12/05/95	Ra-226	0.99	2.25	pCi/g	0.27	RN not ingrown
SC-00918-S	12/05/95	Ra-226	0.80	1.82	pCi/g	0.27	RN not ingrown
SC-00919-S	12/05/95	Ra-226	0.85	1.93	pCi/g	0.20	RN not ingrown
SC-00920-S	12/05/95	Ra-226	0.75	1.70	pCi/g	0.36	RN not ingrown
SC-00921-C	12/05/95	Ra-226	0.57	1.29	pCi/g	0.23	RN not ingrown
SC-00921-S	12/05/95	Ra-226	0.94	2.13	pCi/g	0.26	RN not ingrown
SC-00922-S	12/05/95	Ra-226	0.74	1.68	pCi/g	0.24	RN not ingrown
SC-00923-S	12/05/95	Ra-226	0.80	1.82	pCi/g	0.25	RN not ingrown
SC-00924-S	12/05/95	Ra-226	0.92	2.09	pCi/g	0.24	RN not ingrown
SC-00925-S	12/05/95	Ra-226	0.85	1.93	pCi/g	0.32	RN not ingrown
SC-00901-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00902-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00903-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00904-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00908-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00909-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00910-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00911-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00917-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00918-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00919-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00920-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP253 2. Date: 02/05/96 3. Review Form #: 95-010a
 4. Remediation Unit Number: RU004 5. Confirmation Unit Number: CU010 (map attached)
 6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb Tl

(Screening)
 7. Results average below ALARA goal(s)? Ra226 Avg = 1.44pCi/g / TNT+U238 were all ND Yes No
 8. All results below cleanup criteria? Yes No
 9. Any results greater than 3X criteria? Yes No
 10. Hotspots present (less than 3X criteria)? Yes No

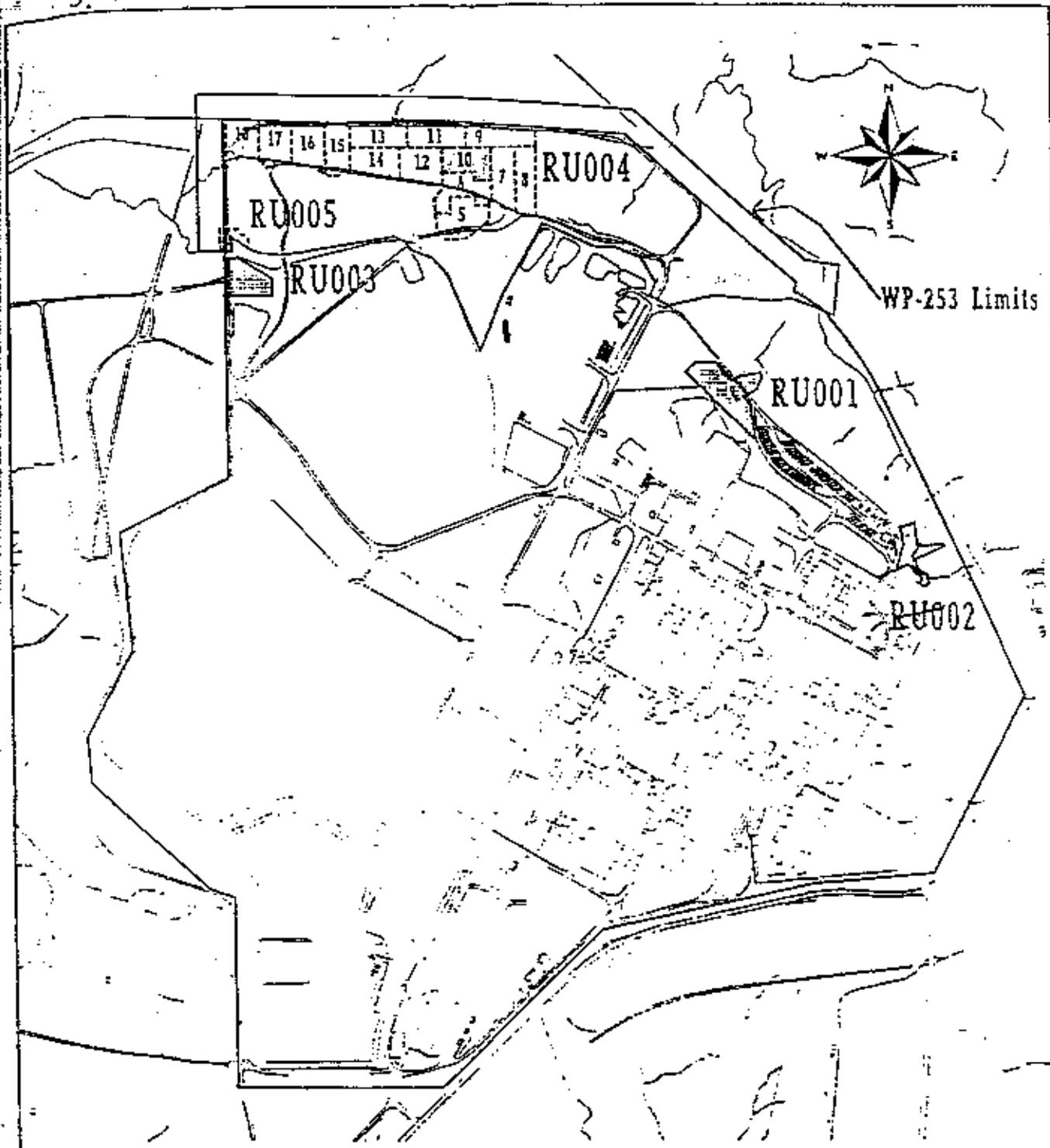
Parameter	Size	Concentration	Complies with Plan?
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			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

11. Reviewer: Mel A. Dutz Date: 2/5/96
 12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*
 14. ES&H Manager: [Signature] Date: 2/5/96
 15. DOE Project Manager/Engineers: [Signature] Date: 2/5/96
 16. Project Manager: [Signature] Date: 2/5/96
 17. Construction Engineer: [Signature] Date: 2/5/96

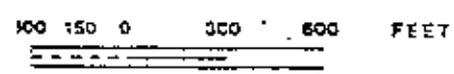
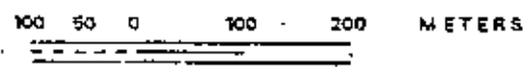
SEE ATTACHED RESULTS AND MAP

Comments: Final Ra226 results were received on 02/05/96. Based upon these final results (vs. the estimated final results used previously), CU010 no longer requires further excavation. No single sample exceeds criteria and the average is less than MCL. This form now replaces Review Form #: 95-010.



LEGEND

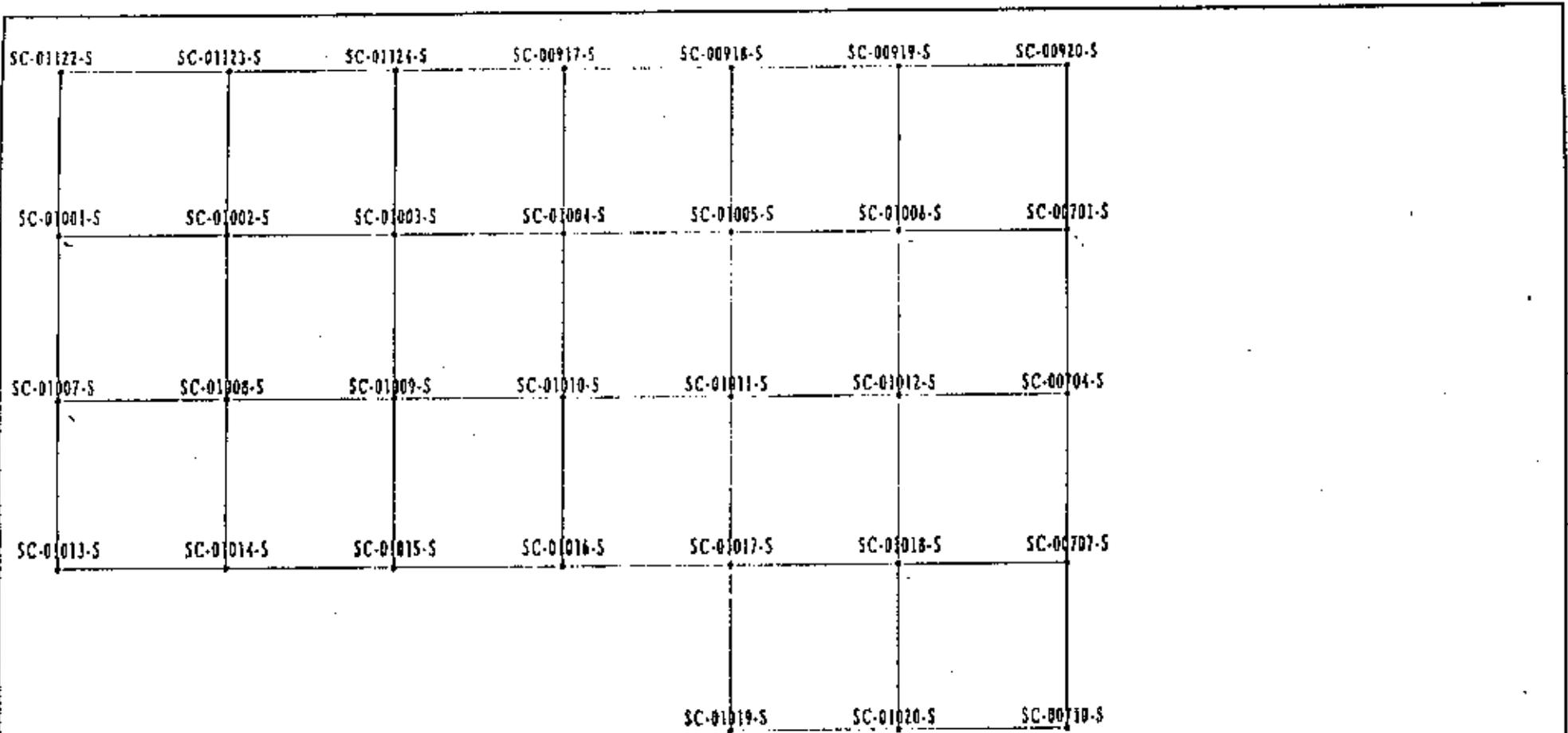
-  Confirmed RUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Contamination Data



Location of Remedial Units

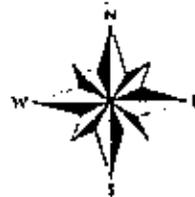
Figure 1-1

PROJECT NO:		REPORT NO: DOE/OR/21548-563	
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS	DATE: 9/95	



10 5 0 10 METERS

30 15 0 30 FEET



Sample Locations in Remedial Unit RU004
Confirmation Unit CU010

Figure 2-6

EXHIBIT NO.: AIDC102810895	REPORT NO.: DOE/ORI/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

95-010a

Soil Confirmation Results for CU010

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL
SC-01001-S	12/07/95	Ra-226	0.85	2.16	1.52	pCi/g	0.44
SC-01001-S	12/07/95	U-238	ND	NA	NA	pCi/g	4.03
SC-01002-S	12/07/95	Ra-226	0.89	2.02	1.47	pCi/g	0.29
SC-01003-S	12/07/95	Ra-226	1.22	2.77	1.34	pCi/g	0.40
SC-01004-S	12/07/95	Ra-226	0.84	1.91	1.34	pCi/g	0.24
SC-01005-S	12/07/95	Ra-226	2.35	5.33	2.72	pCi/g	0.31
SC-01006-S	12/07/95	Ra-226	0.77	1.75	1.22	pCi/g	0.25
SC-01007-S	12/07/95	Ra-226	0.93	2.11	1.27	pCi/g	0.34
SC-01007-S	12/07/95	U-238	ND	NA	NA	pCi/g	4.12
SC-01008-S	12/07/95	Ra-226	0.99	2.25	1.50	pCi/g	0.28
SC-01009-S	12/07/95	Ra-226	1.06	2.41	1.53	pCi/g	0.29
SC-01010-S	12/07/95	Ra-226	1.11	2.52	1.34	pCi/g	0.33
SC-01011-S	12/07/95	Ra-226	0.73	1.65	1.26	pCi/g	0.35
SC-01012-S	12/07/95	Ra-226	1.33	3.02	1.57	pCi/g	0.31
SC-01013-S	12/07/95	Ra-226	0.95	2.22	1.40	pCi/g	0.26
SC-01013-S	12/07/95	U-238	ND	NA	NA	pCi/g	4.14
SC-01014-S	12/07/95	Ra-226	1.47	3.34	1.51	pCi/g	0.37
SC-01015-S	12/07/95	Ra-226	1.14	2.59	1.47	pCi/g	0.36
SC-01016-S	12/07/95	Ra-226	1.04	2.39	1.37	pCi/g	0.27
SC-01017-S	12/07/95	Ra-226	1.37	3.11	1.47	pCi/g	0.42
SC-01018-S	12/07/95	Ra-226	0.90	2.04	1.33	pCi/g	0.31
SC-01019-S	12/07/95	Ra-226	1.04	2.35	1.20	pCi/g	0.30
SC-01020-S	12/07/95	Ra-226	0.92	2.09	1.11	pCi/g	0.33
SC-00701-S	12/05/95	Ra-226	1.16	2.63	1.61	pCi/g	0.37
SC-00704-S	12/05/95	Ra-226	0.79	1.79	1.25	pCi/g	0.34
SC-00707-S	12/05/95	Ra-226	1.39	3.16	1.65	pCi/g	0.34
SC-00710-S	12/05/95	Ra-226	0.74	1.66	1.21	pCi/g	0.32
SC-00917-S	12/05/95	Ra-226	0.99	2.25	1.39	pCi/g	0.26
SC-00917-S	12/05/95	U-238	(2.04)	NA	NA	pCi/g	2.45
SC-00918-S	12/05/95	Ra-226	0.80	1.82	1.42	pCi/g	0.26
SC-00919-S	12/05/95	Ra-226	0.66	1.65	1.35	pCi/g	0.24
SC-00920-S	12/05/95	Ra-226	0.75	1.70	1.21	pCi/g	0.33
SC-01122-S	12/13/95	Ra-226	1.19	2.70	1.59	pCi/g	0.33
SC-01123-S	12/13/95	Ra-226	0.93	2.11	1.39	pCi/g	0.29
SC-01124-S	12/13/95	Ra-226	0.78	1.77	1.29	pCi/g	0.37
SC-01122-S	12/13/95	U-238	ND	N/A	N/A	pCi/g	4.47
SC-01123-S	12/13/95	U-238	ND	N/A	N/A	pCi/g	3.00
SC-01124-S	12/13/95	U-238	ND	N/A	N/A	pCi/g	4.12
SC-01001-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01002-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01003-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01004-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01005-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01006-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01007-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01008-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01009-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01010-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01011-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01012-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01013-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01014-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01015-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01016-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01017-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01018-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01019-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01020-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-00701-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-00704-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-00707-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-00710-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-00917-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-00918-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-00919-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-00920-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01122-S	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01122-S-RA	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.2
SC-01123-S	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.5
SC-01124-S	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.5

95-010a
02-05-95

SOIL REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP 253 2. Date: 12/15/95 3. Review Form #: 95-010

4. Remediation Unit Number: RU 004 5. Confirmation Unit Number: CU 010 (map attached)

6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb TI
Screening

7. Results average below ALARA goal(s)? Ra 226 Avg = 1.05 pCi/g & TNT Avg = 40.5 mg/kg Yes No

8. All results below cleanup criteria? See SC-01005-S Ra 226/228 Conc = 6.76 pCi/g Yes No

9. Any results greater than 3X criteria? Yes No

10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
<u>Ra 226/228</u>	<u>Greater than 25 m² (see map)</u>	<u>Ra 226/228 = 6.76 pCi/g</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

11. Reviewer: Mel N. Lutz Date: 12-15-95

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

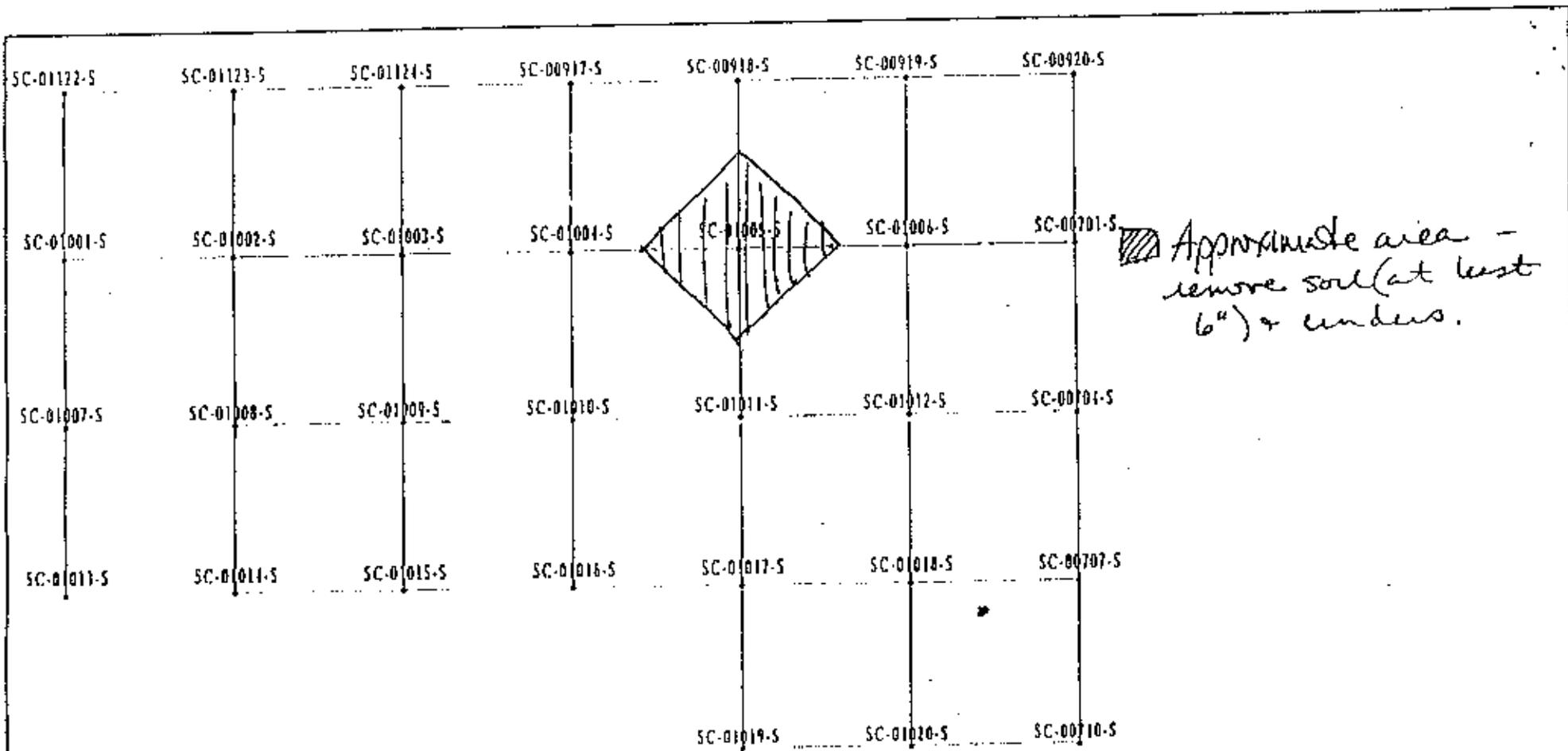
14. ES&H Manager: _____ Date: _____

15. DOE Project Manager/Engineer: _____ Date: _____

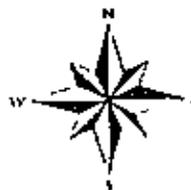
16. Project Manager: _____ Date: _____

17. Construction Engineer: _____ Date: _____

ATTACH RESULTS AND MAP



0 5 10 METERS



0 5 10 FEET

Sample Locations in Remedial Unit RU004
Confirmation Unit CU010

Figure 2-6

EXHIBIT NO.: AIDC/028/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU010

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	UNITS	DL	COMMENTS
SC-01001-S	12/07/95	Ra-226	0.95	2.16	pCi/g	0.31	RN not ingrown
SC-01001-S	12/07/95	U-238	<3.55	NA	pCi/g	3.85	None
SC-01002-S	12/07/95	Ra-226	0.89	2.02	pCi/g	0.34	RN not ingrown
SC-01003-S	12/07/95	Ra-226	1.22	2.77	pCi/g	0.26	RN not ingrown
SC-01004-S	12/07/95	Ra-226	0.84	1.91	pCi/g	0.34	RN not ingrown
SC-01005-S	12/07/95	Ra-226	2.35	5.33	pCi/g	0.35	RN not ingrown
SC-01006-S	12/07/95	Ra-226	0.77	1.75	pCi/g	0.30	RN not ingrown
SC-01007-S	12/07/95	Ra-226	0.93	2.11	pCi/g	0.21	RN not ingrown
SC-01007-S	12/07/95	U-238	<3.01	NA	pCi/g	3.01	None
SC-01008-S	12/07/95	Ra-226	0.99	2.25	pCi/g	0.29	RN not ingrown
SC-01009-S	12/07/95	Ra-226	1.06	2.41	pCi/g	0.28	RN not ingrown
SC-01010-S	12/07/95	Ra-226	1.11	2.52	pCi/g	0.31	RN not ingrown
SC-01011-S	12/07/95	Ra-226	0.73	1.66	pCi/g	0.41	RN not ingrown
SC-01012-S	12/07/95	Ra-226	1.33	3.02	pCi/g	0.23	RN not ingrown
SC-01013-S	12/07/95	Ra-226	0.93	2.22	pCi/g	0.27	RN not ingrown
SC-01013-S	12/07/95	U-238	<3.77	NA	pCi/g	3.77	None
SC-01014-S	12/07/95	Ra-226	1.47	3.34	pCi/g	0.26	RN not ingrown
SC-01015-S	12/07/95	Ra-226	1.14	2.59	pCi/g	0.38	RN not ingrown
SC-01016-S	12/07/95	Ra-226	1.04	2.36	pCi/g	0.26	RN not ingrown
SC-01017-S	12/07/95	Ra-226	1.37	3.11	pCi/g	0.31	RN not ingrown
SC-01018-S	12/07/95	Ra-226	0.90	2.04	pCi/g	0.33	RN not ingrown
SC-01019-S	12/07/95	Ra-226	1.04	2.36	pCi/g	0.30	RN not ingrown
SC-01020-S	12/07/95	Ra-226	0.92	2.09	pCi/g	0.33	RN not ingrown
SC-00701-S	12/05/95	Ra-226	1.18	2.53	pCi/g	0.24	RN not ingrown
SC-00704-S	12/05/95	Ra-226	0.79	1.79	pCi/g	0.45	RN not ingrown
SC-00707-S	12/05/95	Ra-226	1.39	3.16	pCi/g	0.33	RN not ingrown
SC-00710-S	12/06/95	Ra-226	0.74	1.68	pCi/g	0.41	RN not ingrown
SC-00917-S	12/05/95	Ra-226	0.99	2.25	pCi/g	0.27	RN not ingrown
SC-00918-S	12/05/95	Ra-226	0.80	1.82	pCi/g	0.27	RN not ingrown
SC-00919-S	12/05/95	Ra-226	0.86	1.95	pCi/g	0.20	RN not ingrown
SC-00920-S	12/05/95	Ra-226	0.75	1.70	pCi/g	0.36	RN not ingrown
SC-01122-S	12/13/95	Ra-226	1.19	2.70	pCi/g	0.27	RN not ingrown
SC-01123-S	12/13/95	Ra-226	0.93	2.11	pCi/g	0.29	RN not ingrown
SC-01124-S	12/13/95	Ra-226	0.78	1.77	pCi/g	0.26	RN not ingrown
SC-01001-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01002-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01003-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01004-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01005-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01006-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01007-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01008-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01009-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01010-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01011-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01012-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01013-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01014-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01015-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01016-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01017-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01018-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01019-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01020-S	12/07/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00701-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00704-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00707-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00710-S	12/06/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00917-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00918-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00919-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-00920-S	12/05/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01122-S	12/13/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01122-RA		TNT		N/A	mg/kg		None
SC-01123-S	12/13/95	TNT	ND	N/A	mg/kg	0.5	None
SC-01124-S	12/13/95	TNT	ND	N/A	mg/kg	0.5	None

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP253 2. Date: 3/1/96 3. Review Form #: 96-005

4. Remediation Unit Number: R1004 5. Confirmation Unit Number: CU011 (map attached)

6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb TI
(See drawing)

7. Results average below ALARA goal(s)? Yes No

8. All results below cleanup criteria? Yes No

9. Any results greater than 3X criteria? Yes No

10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No

11. Reviewer: *[Signature]* Date: 3/1/96

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

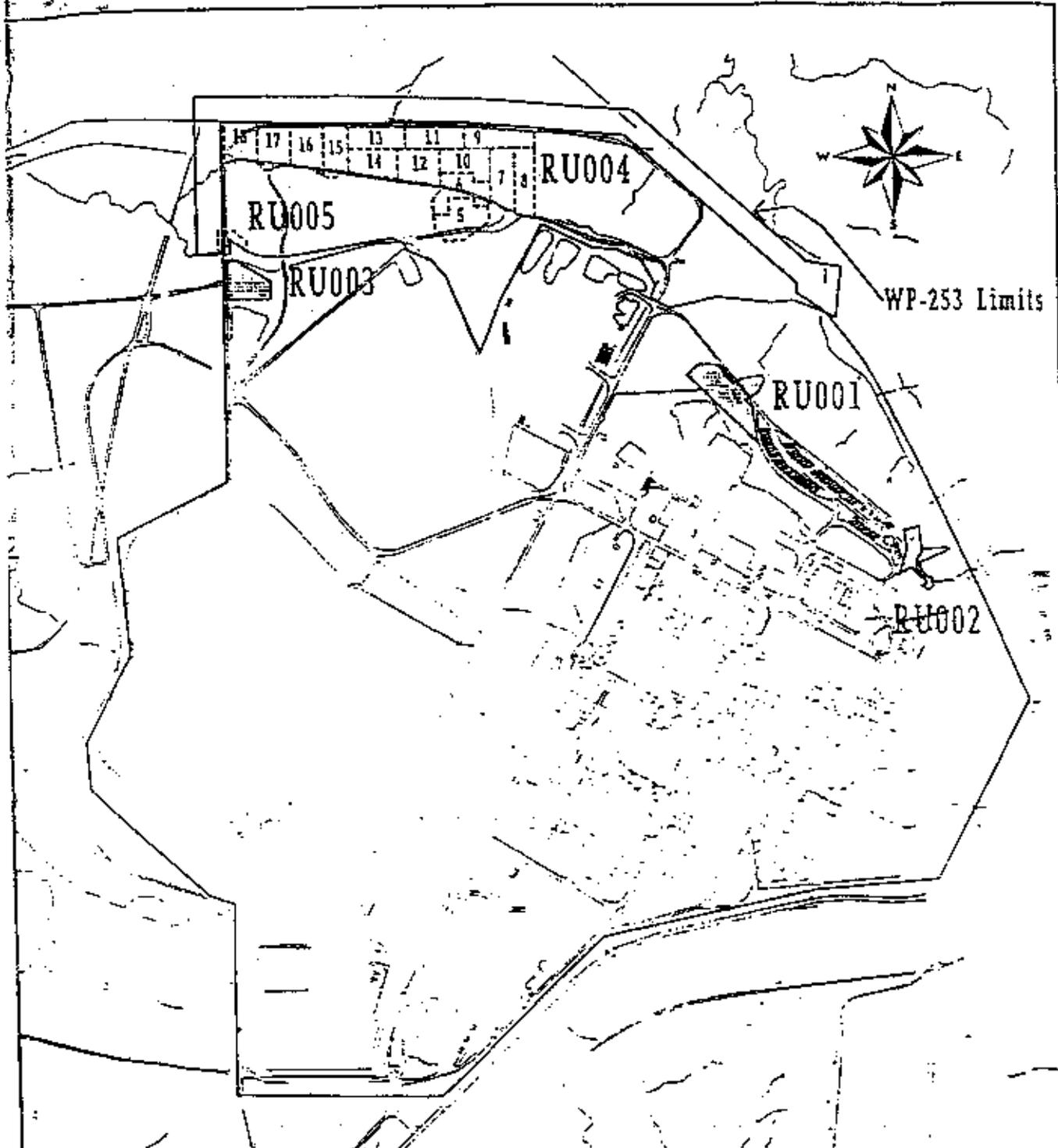
14. ES&H Manager: *[Signature]* Date: 3/1/96

15. DOE Project Manager/Engineer: *[Signature]* Date: 3/1/96

16. Project Manager: *[Signature]* Date: 3/1/96

17. Construction Engineer: *[Signature]* Date: 3/1/96

SEE ATTACHED RESULTS AND MAP



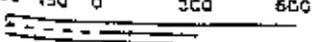
LEGEND

-  Confirmed RUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Confirmation Limit

100 50 0 100 200 METERS



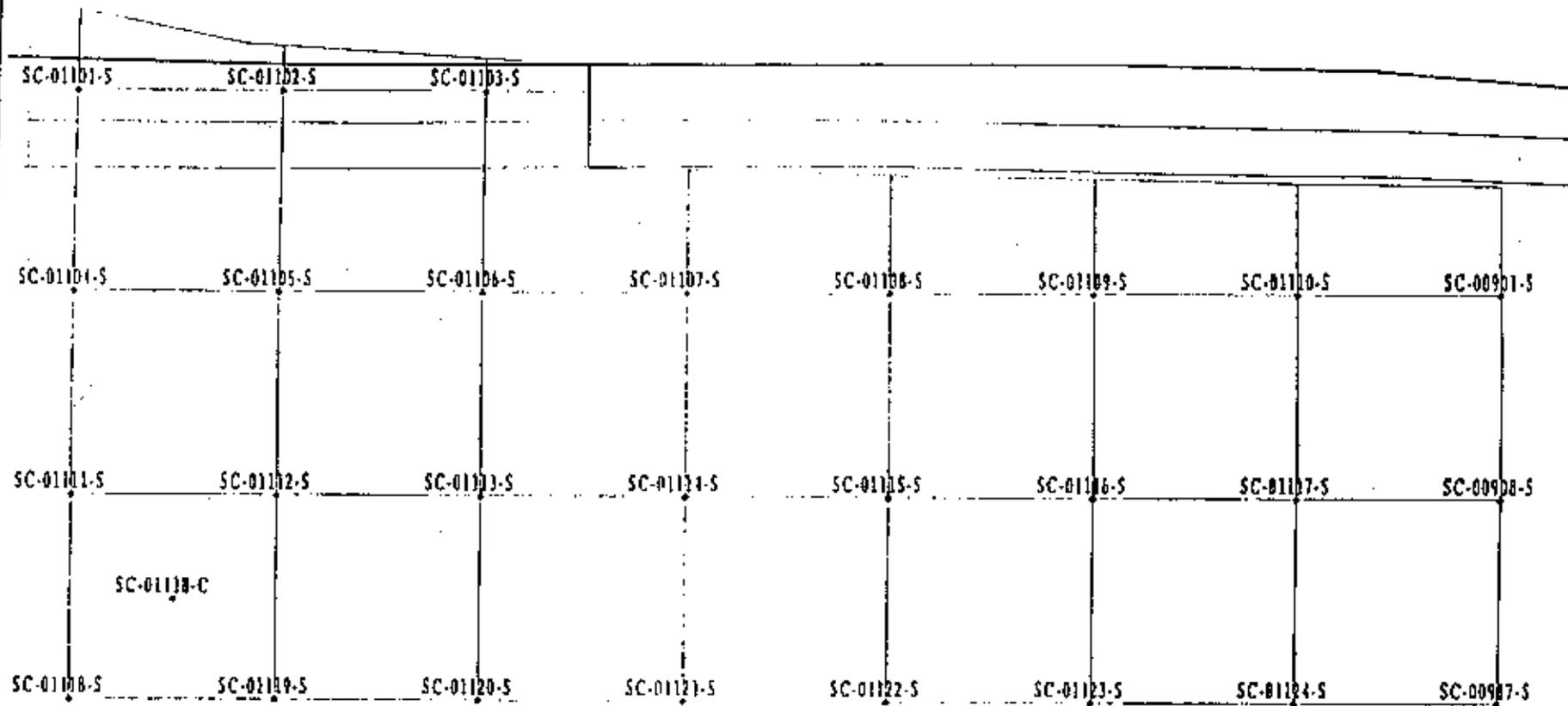
100 50 0 100 200 FEET



Location of Remedial Units

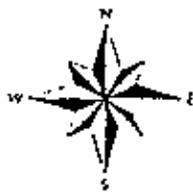
Figure 1-1

PROJECT NO:	REPORT NO: DOE/OR/21548-565
ORIGINATOR: MGL	DATE: 9/95
DRAWN BY: WSSRAP GIS	



0 5 10 METERS

0 15 30 FEET



Sample Locations in Remedial Unit RU004
Confirmation Unit CU011

Figure 2-7

EXHIBIT NO.: A/DC/029/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU011

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	CONC. FOR AVERAGE
SC-01101-S	02/22/96	U-238	8.93	N/A	N/A	pCi/g	4.39	Preliminary	8.93
SC-01102-S	02/22/96	U-238	2.49	N/A	N/A	pCi/g	1.30	Preliminary	2.49
SC-01103-S	02/22/96	U-238	NO	N/A	N/A	pCi/g	4.21	Preliminary	2.11
SC-01104-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	4.50	Preliminary	2.25
SC-01105-S	02/14/96	U-238	8.32	N/A	N/A	pCi/g	5.81	Preliminary	8.32
SC-01106-S	02/14/96	U-238	3.75	N/A	N/A	pCi/g	2.66	Preliminary	3.75
SC-01107-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	2.52	Preliminary	1.26
SC-01108-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	3.85	Preliminary	1.83
SC-01109-S	02/14/96	U-238	1.84	N/A	N/A	pCi/g	1.54	Preliminary	1.84
SC-01110-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	3.90	Preliminary	2.00
SC-01111-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	4.53	Preliminary	2.27
SC-01112-S	02/14/96	U-238	12.70	N/A	N/A	pCi/g	2.86	Preliminary	12.70
SC-01113-S	02/14/96	U-238	5.23	N/A	N/A	pCi/g	2.46	Preliminary	5.23
SC-01114-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	4.50	Preliminary	2.25
SC-01115-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	4.33	Preliminary	2.16
SC-01116-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	2.63	Preliminary	1.32
SC-01117-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	4.17	Preliminary	2.09
SC-01118-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	7.98	Preliminary	69.90
SC-01119-S	02/14/96	U-238	2.66	N/A	N/A	pCi/g	2.48	Preliminary	2.66
SC-01120-S	02/14/96	U-238	7.30	N/A	N/A	pCi/g	4.57	Preliminary	7.30
SC-01121-S	02/14/96	U-238	2.87	N/A	N/A	pCi/g	2.36	Preliminary	2.87
SC-01121-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	3.00	Preliminary	1.50
SC-01122-S	12/13/95	U-238	NO	N/A	N/A	pCi/g	4.47	Final Result	2.24
SC-01123-S	12/13/95	U-238	NO	N/A	N/A	pCi/g	3.00	Final Result	1.50
SC-01124-S	12/13/95	U-238	NO	N/A	N/A	pCi/g	4.12	Final Result	2.06

MAXIMUM U-238 56.90
AVERAGE U-238 4.81

SC-00001-S	12/05/95	U-238	NO	N/A	N/A	pCi/g	3.00	Final Result	1.50
SC-00006-S	12/05/95	U-238	NO	N/A	N/A	pCi/g	4.42	Final Result	2.21
SC-00017-S	12/05/95	U-238	(2.04)	N/A	N/A	pCi/g	2.45	Final Result	2.04

FINAL U-238 AVE.
5.19

SC-01101-S	02/22/96	Ra-226	1.12	2.54		pCi/g	0.34	Rn not ingrown	2.54
SC-01102-S	02/22/96	Ra-226	0.82	1.86		pCi/g	0.27	Rn not ingrown	1.86
SC-01103-S	02/22/96	Ra-226	0.73	1.66		pCi/g	0.34	Rn not ingrown	1.66
SC-01104-S	02/14/96	Ra-226	0.75	1.70		pCi/g	0.29	Rn not ingrown	1.70
SC-01105-S	02/14/96	Ra-226	0.72	1.63		pCi/g	0.29	Rn not ingrown	1.63
SC-01106-S	02/14/96	Ra-226	1.04	2.36		pCi/g	0.24	Rn not ingrown	2.36
SC-01107-S	02/14/96	Ra-226	0.73	1.70		pCi/g	0.25	Rn not ingrown	1.70
SC-01108-S	02/14/96	Ra-226	1.05	2.36		pCi/g	0.27	Rn not ingrown	2.36
SC-01109-S	02/14/96	Ra-226	0.84	1.91		pCi/g	0.29	Rn not ingrown	1.91
SC-01110-S	02/14/96	Ra-226	0.76	1.73		pCi/g	0.28	Rn not ingrown	1.73
SC-01111-S	02/14/96	Ra-226	0.94	2.13		pCi/g	0.34	Rn not ingrown	2.13
SC-01112-S	02/14/96	Ra-226	0.60	1.53		pCi/g	0.25	Rn not ingrown	1.53
SC-01113-S	02/14/96	Ra-226	0.66	2.00		pCi/g	0.22	Rn not ingrown	2.00
SC-01114-S	02/14/96	Ra-226	1.39	3.16		pCi/g	0.37	Rn not ingrown	3.16
SC-01115-S	02/14/96	Ra-226	0.63	1.93		pCi/g		Rn not ingrown	1.93
SC-01116-S	02/14/96	Ra-226	0.65	1.83		pCi/g	0.27	Rn not ingrown	1.83
SC-01117-S	02/14/96	Ra-226	0.65	1.83		pCi/g	0.36	Rn not ingrown	1.83
SC-01118-S	02/14/96	Ra-226	0.69	2.02		pCi/g	0.39	Rn not ingrown	2.02
SC-01118-C	02/14/96	Ra-226	0.71	1.81		pCi/g	0.21	Rn not ingrown	1.81
SC-01119-S	02/14/96	Ra-226	1.11	2.52		pCi/g		Rn not ingrown	2.52
SC-01120-S	02/14/96	Ra-226	0.89	2.00		pCi/g	0.32	Rn not ingrown	2.00
SC-01121-S	02/14/96	Ra-226	0.69	2.22		pCi/g	0.22	Rn not ingrown	2.22
SC-01122-S	12/13/95	Ra-226	1.19	2.70	1.59	pCi/g	0.33	Final Results	1.59
SC-01123-S	12/13/95	Ra-226	0.93	2.11	1.39	pCi/g	0.29	Final Results	1.39
SC-01124-S	12/13/95	Ra-226	0.78	1.77	1.29	pCi/g	0.37	Final Results	1.29

MAXIMUM Ra-226 3.16
AVERAGE Ra-226 2.05

SC-00001-S	12/05/95	Ra-226	0.71	1.61	1.09	pCi/g	0.37	Final Results	1.09
SC-00006-S	12/05/95	Ra-226	1.13	2.51	1.15	pCi/g	0.21	Final Results	1.15
SC-00017-S	12/05/95	Ra-226	0.99	2.25	1.39	pCi/g	0.26	Final Results	1.39

FINAL Ra-226 AVE.
1.86

SC-01101-S	02/22/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01102-S	02/22/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01103-S	02/22/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01104-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01105-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01106-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01107-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01108-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01109-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01110-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01111-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01112-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01113-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01114-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01115-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01116-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01117-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01118-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01118-C	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01119-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01120-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01121-S	02/14/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01122-S	12/13/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01122-S-R	12/13/95	TNT	NO	N/A	N/A	mg/kg	0.2	None	
SC-01123-S	12/13/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01124-S	12/13/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-00001-S	12/05/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-00006-S	12/05/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-00017-S	12/05/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	

FILE

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP-253 2. Date: 2/28/96 3. Review Form #: 96-003

4. Remediation Unit Number: R1004 5. Confirmation Unit Number: CU012 (map attached)

6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb TI
(SCREENING)

7. Results average below ALARA goal(s)? Yes No

8. All results below cleanup criteria? Yes No

9. Any results greater than 3X criteria? Yes No

10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

11. Reviewer: GANG KISHI ~~_____~~ Jim Meier ^{9AM} Date: 2/28/96

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

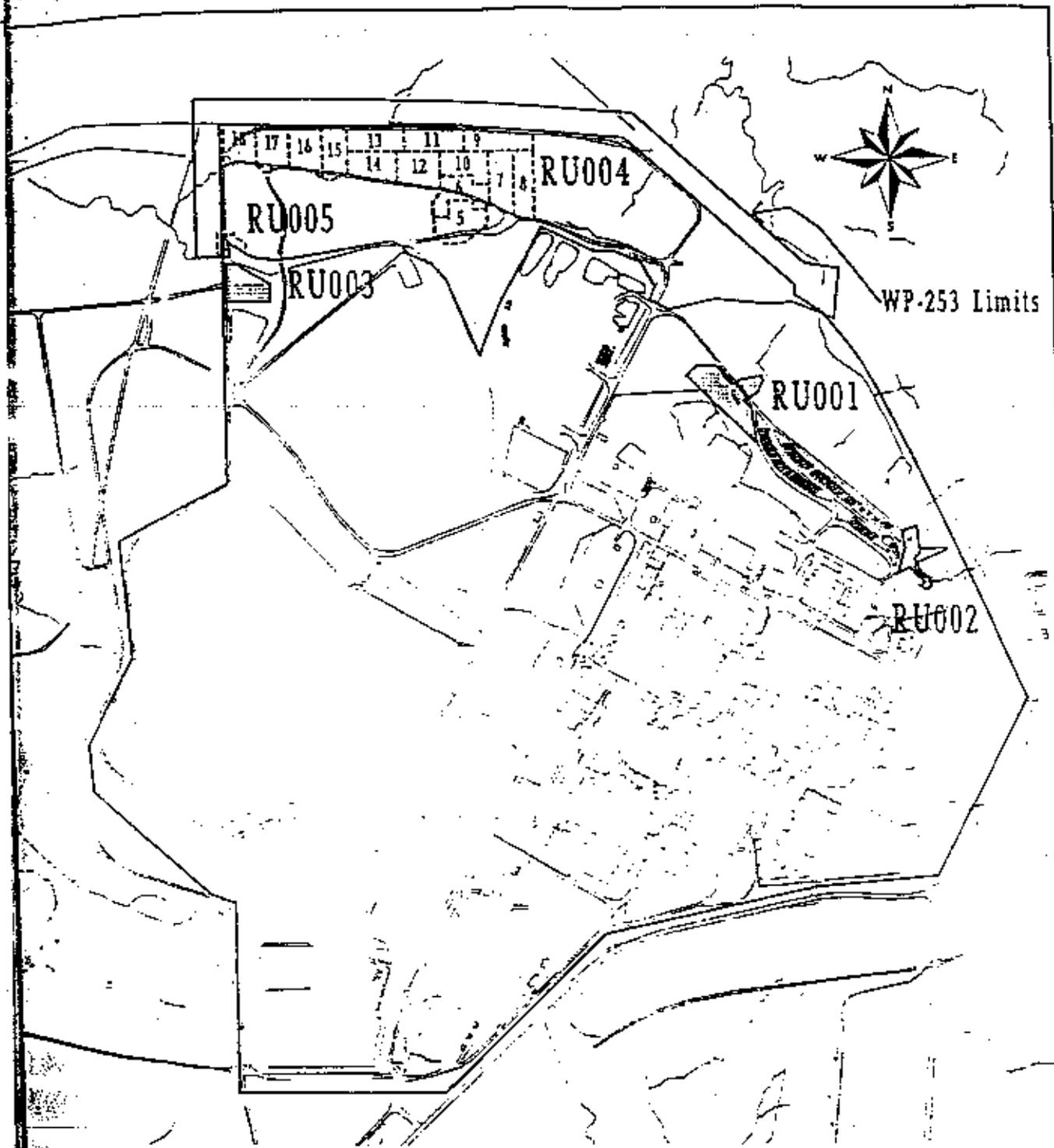
14. ES&H Manager: [Signature] for Kon Date: 2/28/96

15. DOE Project Manager/Engineer: Thomas C. Pauling Date: 2/29/96

16. Project Manager: [Signature] Date: 4/29/96

17. Construction Engineer: Paul Engerson Date: 2/29/96

SEE ATTACHED RESULTS AND MAP



LEGEND

- Confirmed RUs under previous Work Packages
- WP 253 Boundary
- WP 253 Containment Units

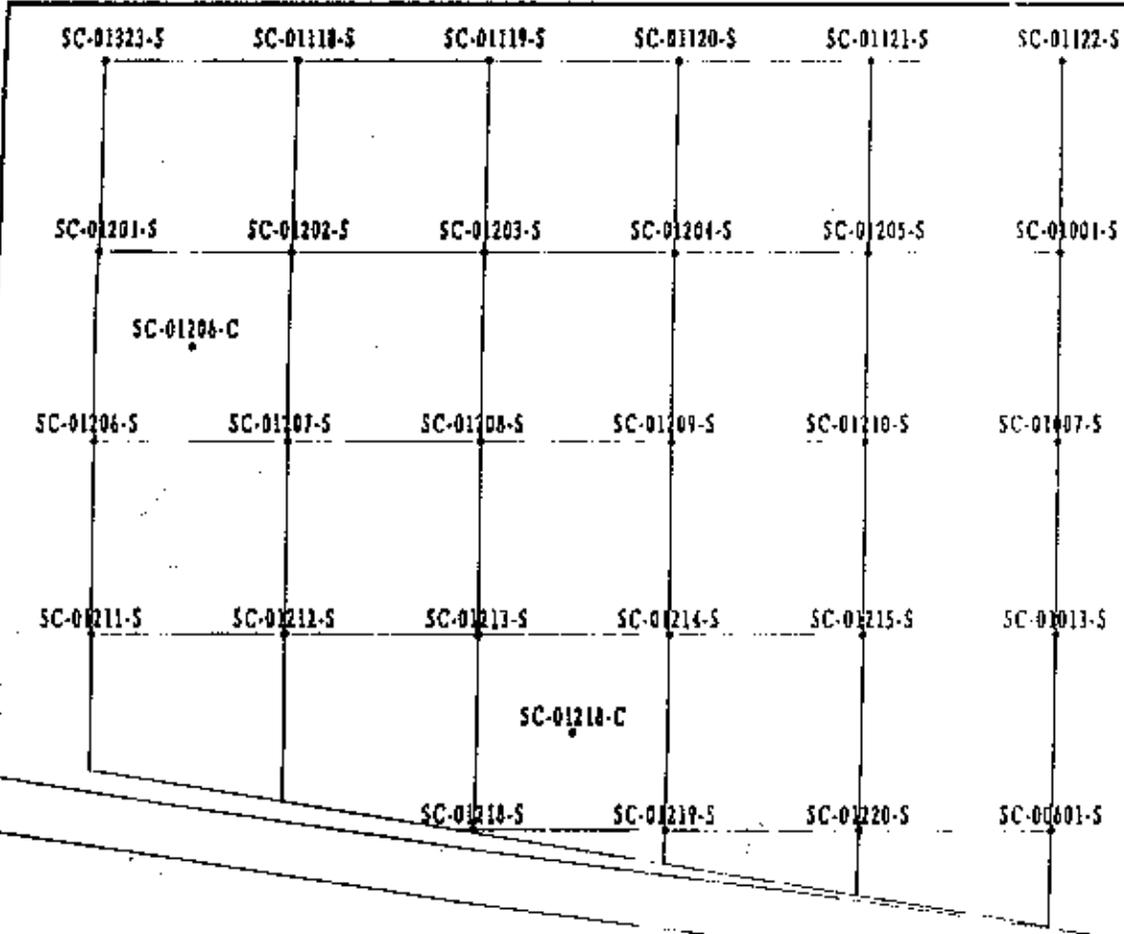
0 50 100 200 METERS

0 150 300 600 FEET

Location of Remedial Units

Figure 1-1

EXHIBIT NO:	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGL	DATE: 9/95
DRAWN BY: WSSRAP GIS	



10 5 0 10 METERS



30 15 0 30 FEET

Sample Locations in Remedial Unit RU004
Confirmation Unit CU012

Figure 2-8

EXHIBIT NO.: A/DC/H/30/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGI	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU012

WSSRAP ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS		
SC-01201-S	02/14/98	U-238	ND	2.86	N/A	N/A	pCi/g	4.70	Preliminary	2.86
SC-01202-S	02/14/98	U-238	ND	2.73	N/A	N/A	pCi/g	3.06	Preliminary	1.53
SC-01203-S	02/14/98	U-238	ND	2.73	N/A	N/A	pCi/g	2.53	Preliminary	2.73
SC-01204-S	02/14/98	U-238	ND	N/A	N/A	N/A	pCi/g	2.80	Preliminary	1.40
SC-01205-S	02/14/98	U-238	ND	N/A	N/A	N/A	pCi/g	3.94	Preliminary	1.97
SC-01206-S	02/14/98	U-238	21.44	N/A	N/A	N/A	pCi/g	3.48	Preliminary	21.44
SC-01206-C	02/14/98	U-238	2.89	N/A	N/A	N/A	pCi/g	4.42	Preliminary	2.89
SC-01207-S	02/14/98	U-238	NO	N/A	N/A	N/A	pCi/g	4.51	Preliminary	2.26
SC-01208-S	02/14/98	U-238	3.90	N/A	N/A	N/A	pCi/g	1.86	Preliminary	3.90
SC-01209-S	02/14/98	U-238	ND	N/A	N/A	N/A	pCi/g	2.81	Preliminary	1.48
SC-01209-B	02/14/98	U-238	ND	N/A	N/A	N/A	pCi/g	2.89	Preliminary	1.45
SC-01210-S	02/14/98	U-238	ND	N/A	N/A	N/A	pCi/g	4.40	Preliminary	5.42
SC-01211-S	02/14/98	U-238	8.42	N/A	N/A	N/A	pCi/g	3.88	Preliminary	2.55
SC-01212-S	02/14/98	U-238	2.55	N/A	N/A	N/A	pCi/g	2.61	Preliminary	1.31
SC-01213-S	02/14/98	U-238	ND	N/A	N/A	N/A	pCi/g	2.61	Preliminary	2.12
SC-01214-S	02/14/98	U-238	NO	N/A	N/A	N/A	pCi/g	4.24	Preliminary	2.09
SC-01215-S	02/14/98	U-238	NO	N/A	N/A	N/A	pCi/g	4.17	Preliminary	2.68
SC-01216-S	02/14/98	U-238	2.65	N/A	N/A	N/A	pCi/g	1.73	Preliminary	6.03
SC-01216-C	02/14/98	U-238	6.03	N/A	N/A	N/A	pCi/g	2.65	Preliminary	1.34
SC-01218-S	02/14/98	U-238	NO	N/A	N/A	N/A	pCi/g	2.75	Preliminary	4.40
SC-01220-S	02/14/98	U-238	4.40	N/A	N/A	N/A	pCi/g			
			MAXIMUM U-238	21.44						
			AVERAGE U-238	2.60						
SC-00801-S	12/07/95	U-238	NO	N/A	N/A	N/A	pCi/g	4.16	Final	2.08
SC-01001-S	12/07/95	U-238	ND	N/A	N/A	N/A	pCi/g	4.03	Final	2.02
SC-01007-S	12/07/95	U-238	ND	N/A	N/A	N/A	pCi/g	4.12	Final	2.06
SC-01013-S	12/07/95	U-238	NO	N/A	N/A	N/A	pCi/g	4.14	Final	2.07
SC-01118-S	02/14/98	U-238	59.80	N/A	N/A	N/A	pCi/g	7.88	Preliminary	59.80
SC-01119-S	02/14/98	U-238	7.30	N/A	N/A	N/A	pCi/g	4.82	Preliminary	7.30
SC-01120-S	02/14/98	U-238	2.87	N/A	N/A	N/A	pCi/g	2.89	Preliminary	2.87
SC-01121-S	02/14/98	U-238	NO	N/A	N/A	N/A	pCi/g	3.00	Preliminary	1.50
SC-01122-S	12/13/95	U-238	NO	N/A	N/A	N/A	pCi/g	4.47	Final	2.24
SC-01323-S	2/15/99	U-238	1.25	N/A	N/A	N/A	pCi/g	2.22	Preliminary	1.25
FINAL U-238 AVE. 5.16										
SC-01201-S	02/14/98	Ra-226	0.93	2.11			pCi/g	0.42	Rn not ingrown	2.11
SC-01202-S	02/14/98	Ra-226	0.82	1.41			pCi/g	0.27	Rn not ingrown	1.41
SC-01203-S	02/14/98	Ra-226	0.74	1.86			pCi/g	0.26	Rn not ingrown	1.86
SC-01204-S	02/14/98	Ra-226	1.03	2.34			pCi/g	0.31	Rn not ingrown	2.34
SC-01205-S	02/14/98	Ra-226	0.73	1.66			pCi/g	0.45	Rn not ingrown	1.66
SC-01206-S	02/14/98	Ra-226	0.72	1.63			pCi/g	0.28	Rn not ingrown	1.63
SC-01206-C	02/14/98	Ra-226	0.85	1.93			pCi/g	0.35	Rn not ingrown	1.93
SC-01209-S	02/14/98	Ra-226	0.84	1.91			pCi/g	0.23	Rn not ingrown	1.91
SC-01209-B	02/14/98	Ra-226	0.71	1.51			pCi/g	0.27	Rn not ingrown	1.51
SC-01208-S	02/14/98	Ra-226	0.86	2.18			pCi/g	0.23	Rn not ingrown	2.18
SC-01210-S	02/14/98	Ra-226	0.87	1.97			pCi/g	0.23	Rn not ingrown	1.97
SC-01211-S	02/14/98	Ra-226	1.51	4.11			pCi/g	0.48	Rn not ingrown	4.11
SC-01212-S	02/14/98	Ra-226	0.60	1.82			pCi/g	0.37	Rn not ingrown	1.82
SC-01213-S	02/14/98	Ra-226	0.78	1.73			pCi/g	0.30	Rn not ingrown	1.73
SC-01214-S	02/14/98	Ra-226	0.92	2.09			pCi/g	0.38	Rn not ingrown	2.09
SC-01215-S	02/14/98	Ra-226	0.99	2.02			pCi/g	0.33	Rn not ingrown	2.02
SC-01216-S	02/14/98	Ra-226	0.88	2.02			pCi/g	0.34	Rn not ingrown	2.02
SC-01216-C	02/14/98	Ra-226	0.92	2.09			pCi/g	0.24	Rn not ingrown	2.09
SC-01218-S	02/14/98	Ra-226	1.03	2.34			pCi/g	0.22	Rn not ingrown	2.34
SC-01220-S	02/14/98	Ra-226	2.09	4.74			pCi/g	0.34	Rn not ingrown	4.74
				MAXIMUM Ra-226	4.74					
				AVERAGE Ra-226	2.17					
SC-00801-S	12/07/95	Ra-226	1.21	2.75	1.42		pCi/g	0.34	Final Result	1.42
SC-01001-S	12/07/95	Ra-226	0.95	2.19	1.32		pCi/g	0.44	Final Result	1.32
SC-01007-S	12/07/95	Ra-226	0.93	2.11	1.27		pCi/g	0.34	Final Result	1.27
SC-01013-S	12/07/95	Ra-226	0.88	2.22	1.49		pCi/g	0.28	Final Result	1.49
SC-01119-S	02/14/98	Ra-226	0.89	2.02			pCi/g	0.39	Rn not ingrown	2.02
SC-01119-B	02/14/98	Ra-226	1.11	2.52			pCi/g	0.35	Rn not ingrown	2.52
SC-01120-S	02/14/98	Ra-226	0.88	2.00			pCi/g	0.32	Rn not ingrown	2.00
SC-01121-S	02/14/98	Ra-226	0.98	2.22			pCi/g	0.22	Rn not ingrown	2.22
SC-01122-S	12/13/95	Ra-226	1.19	2.70	1.59		pCi/g	0.33	Final Result	1.59
SC-01323-S	2/15/99	Ra-226	0.88	1.95			pCi/g	0.24	Rn not ingrown	1.95
FINAL Ra-226 AVE. 2.06										
SC-01201-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01202-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01203-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01204-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01205-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01206-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01206-C	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01207-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01208-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01209-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01209-B	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01210-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01211-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01212-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01213-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01214-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01215-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01216-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01216-C	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01218-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01220-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-00801-S	12/07/95	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01001-S	12/07/95	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01007-S	12/07/95	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01013-S	12/07/95	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01118-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01119-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01120-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01121-S	02/14/98	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01122-S	12/13/95	TNT	ND	N/A	N/A		mg/kg	0.5	None	
SC-01122-S-B	12/13/95	TNT	ND	N/A	N/A		mg/kg	0.2	None	
SC-01323-S	02/15/99	TNT	ND	N/A	N/A		mg/kg	0.2	None	

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

ES&H-1.2.1, 12/95
Page 1 of 2

SECTION I

1. Work Package Number: WP 253 2. Date: 3/1/96 3. Review Form #: 96-006

4. Remediation Unit Number: 41004 5. Confirmation Unit Number: 41013 (map attached)

6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb TI
Substrate

7. Results average below ALARA goal(s)? Yes No

8. All results below cleanup criteria? Yes No

9. Any results greater than 3X criteria? Yes No

10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

11. Reviewer: LONG KISH  Date: 3/1/96

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

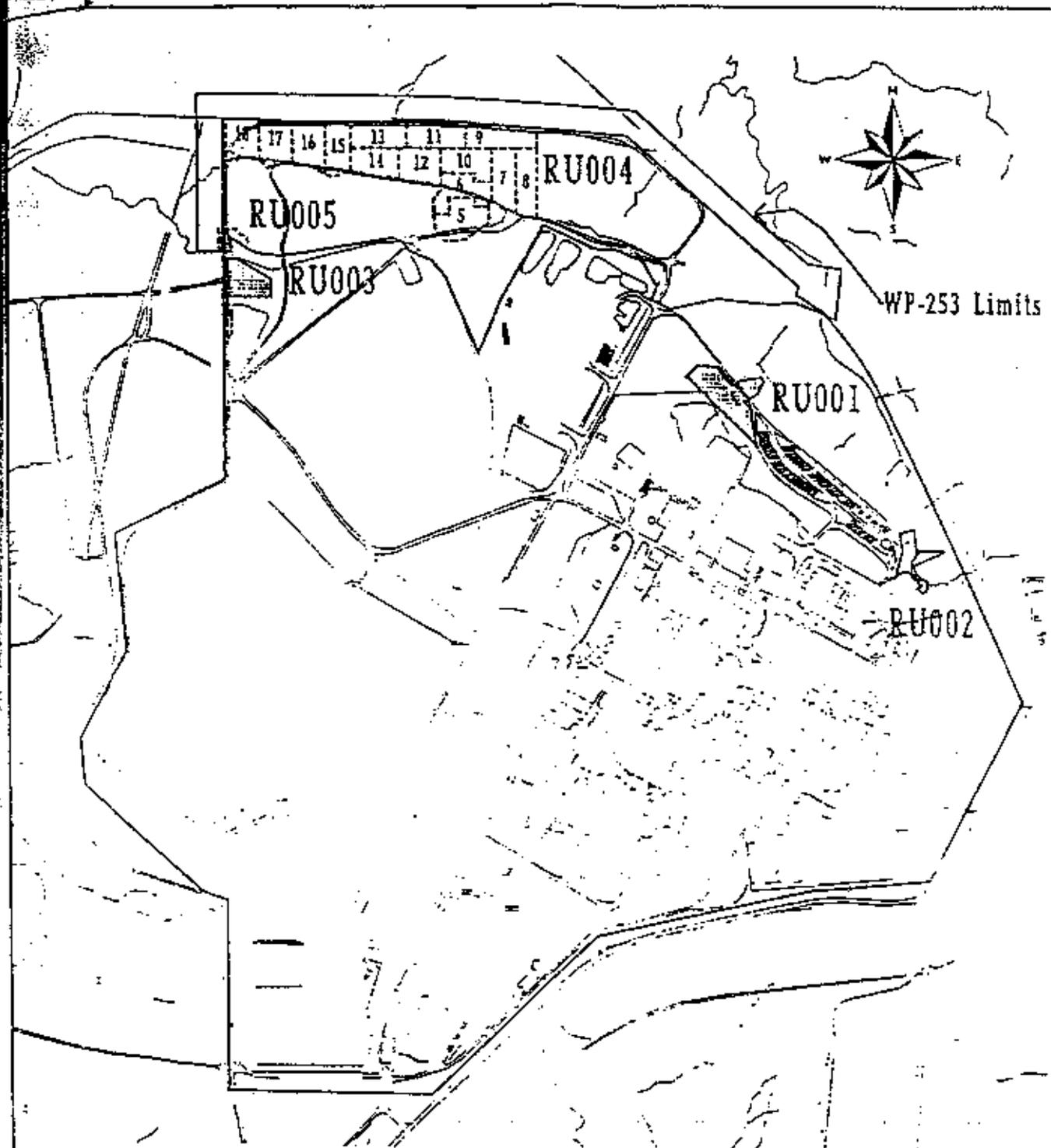
14. ES&H Manager:  Date: 3/1/96

15. DOE Project Manager/Engineer: Thomas C. Pauling Date: 3/1/96

16. Project Manager: Ray R. Martin Date: 3/1/96

17. Construction Engineer: Darl Engstrom Date: 3/1/96

SEE ATTACHED RESULTS AND MAP



LEGEND

Confirmed RUs under previous Work Packages

WP 253 Boundary

WP 253 Contamination Data

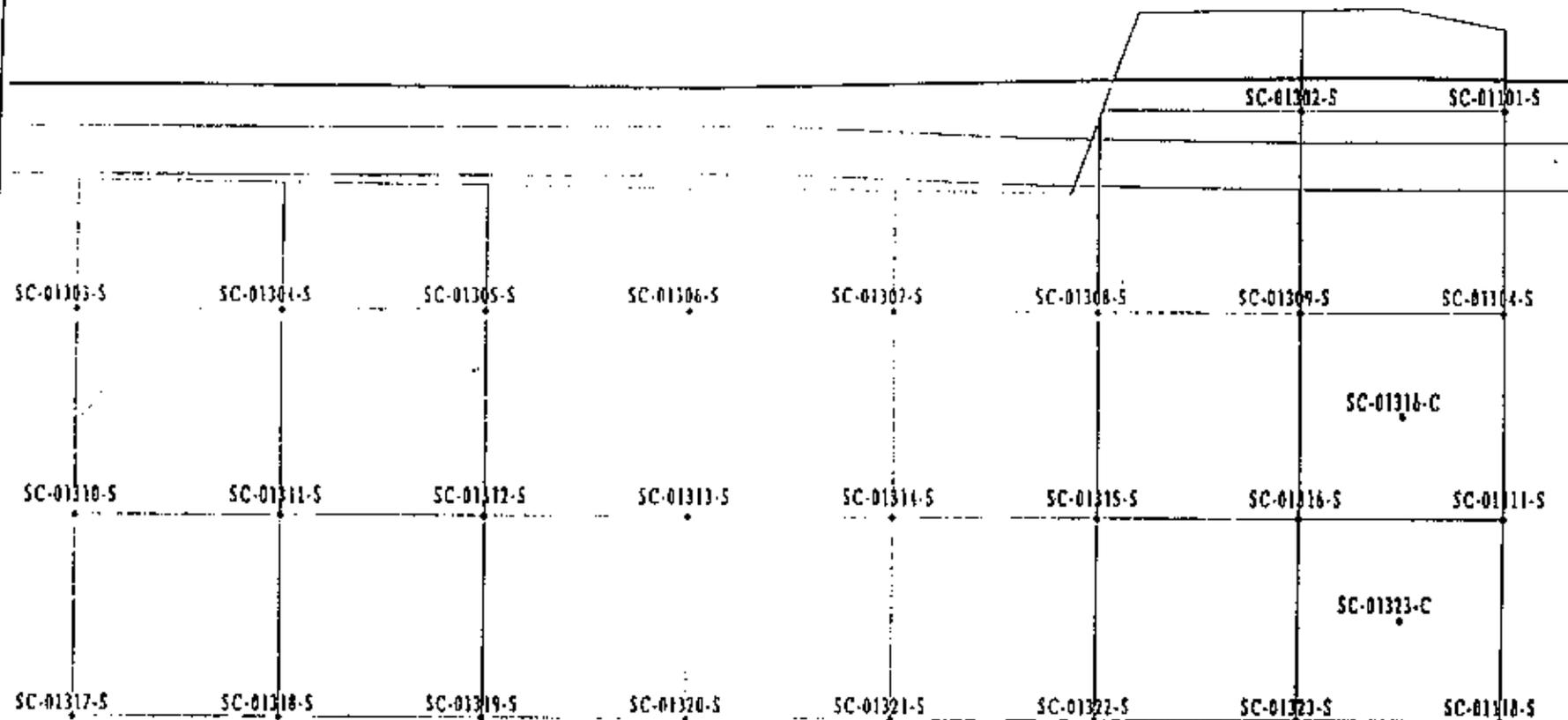
100 50 0 100 200 METERS

100 150 0 300 600 FEET

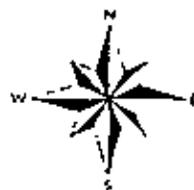
Location of Remedial Units

Figure 1-1

EXHIBIT NO.:	REPORT NO.:	DOE/OR/21548-365
ORIGINATOR:	DRAWN BY:	DATE:
MCL	WSSRAP GIS	9/95



10 5 0 10 METERS



30 15 0 30 FEET

Sample Locations in Remedial Unit RU004
Confirmation Unit CU013

Figure 2-9

EXHIBIT NO.: A/DC/031/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU013

WSSPAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	CONC. FOR AVERAGE
SC-01302-S	2/15/95	U-238	4.76	N/A	N/A	pCi/g	3.02	Preliminary	4.76
SC-01303-S	2/15/95	U-238	43.84	N/A	N/A	pCi/g	5.11	Preliminary	43.84
SC-01304-S	2/15/95	U-238	11.00	N/A	N/A	pCi/g	4.71	Preliminary	11.00
SC-01305-S	2/15/95	U-238	9.46	N/A	N/A	pCi/g	4.88	Preliminary	9.46
SC-01306-S	2/15/95	U-238	3.34	N/A	N/A	pCi/g	2.10	Preliminary	3.34
SC-01307-S	2/15/95	U-238	4.74	N/A	N/A	pCi/g	3.92	Preliminary	4.74
SC-01308-S	2/15/95	U-238	5.36	N/A	N/A	pCi/g	2.56	Preliminary	5.36
SC-01309-S	2/15/95	U-238	4.03	N/A	N/A	pCi/g	4.03	Preliminary	4.03
SC-01310-S	2/15/95	U-238	74.35	N/A	N/A	pCi/g	9.16	Preliminary	74.35
SC-01311-S	2/15/95	U-238	20.27	N/A	N/A	pCi/g	5.50	Preliminary	20.27
SC-01312-S	2/15/95	U-238	NO	N/A	N/A	pCi/g	2.82	Preliminary	1.41
SC-01313-S	2/15/95	U-238	5.74	N/A	N/A	pCi/g	3.01	Preliminary	5.74
SC-01314-S	2/15/95	U-238	29.71	N/A	N/A	pCi/g	6.52	Preliminary	29.71
SC-01315-S	2/15/95	U-238	6.78	N/A	N/A	pCi/g	4.00	Preliminary	6.78
SC-01316-S	2/15/95	U-238	NO	N/A	N/A	pCi/g	4.09	Preliminary	2.05
SC-01316-C	2/15/95	U-238	2.19	N/A	N/A	pCi/g	2.07	Preliminary	2.19
SC-01317-S	2/15/95	U-238	62.70	N/A	N/A	pCi/g	8.47	Preliminary	62.70
SC-01318-S	2/15/95	U-238	6.58	N/A	N/A	pCi/g	3.73	Preliminary	6.58
SC-01319-S	2/15/95	U-238	0.49	N/A	N/A	pCi/g	2.11	Preliminary	0.49
SC-01320-S	2/15/95	U-238	0.27	N/A	N/A	pCi/g	2.54	Preliminary	0.27
SC-01321-S	2/15/95	U-238	0.01	N/A	N/A	pCi/g	2.47	Preliminary	0.01
SC-01322-S	2/15/95	U-238	7.25	N/A	N/A	pCi/g	2.59	Preliminary	7.25
SC-01323-S	2/15/95	U-238	1.23	N/A	N/A	pCi/g	2.22	Preliminary	1.23
SC-01323-C	2/15/95	U-238	NO	N/A	N/A	pCi/g	2.60	Preliminary	1.30
			MAXIMUM U-238	74.35					
			AVERAGE U-238	14.34					
SC-01101-S	02/22/95	U-238	8.53	N/A	N/A	pCi/g	4.39	Preliminary	8.53
SC-01104-S	02/14/95	U-238	NO	N/A	N/A	pCi/g	4.60	Preliminary	2.25
SC-01111-S	02/14/95	U-238	NO	N/A	N/A	pCi/g	4.53	Preliminary	2.27
SC-01118-S	02/14/95	U-238	51.9	N/A	N/A	pCi/g	7.98	Preliminary	56.50
			FINAL U-238 AVE.					14.52	
SC-01303-S	2/15/95	Ra-226	0.92	2.09		pCi/g	0.36	Rn not ingrown	2.09
SC-01310-S	2/15/95	Ra-226	1.40	3.18		pCi/g	0.40	Rn not ingrown	3.18
SC-01317-S	2/15/95	Ra-226	0.68	2.00		pCi/g	0.34	Rn not ingrown	2.00
SC-01323-S	2/15/95	Ra-226	0.89	1.95		pCi/g	0.24	Rn not ingrown	1.95
			MAXIMUM Ra-226	3.18					
			AVERAGE Ra-226	2.31					
SC-01101-S	02/22/95	Ra-226	1.12	2.54		pCi/g	0.34	Rn not ingrown	2.54
SC-01104-S	02/14/95	Ra-226	0.75	1.70		pCi/g	0.29	Rn not ingrown	1.70
SC-01111-S	02/14/95	Ra-226	0.94	2.13		pCi/g	0.34	Rn not ingrown	2.13
SC-01118-S	02/14/95	Ra-226	0.88	2.02		pCi/g	0.39	Rn not ingrown	2.02
			FINAL Ra-226 AVE.					2.20	
SC-01303-S	2/15/95	Ra-226	1.05	N/A	N/A	pCi/g	0.41	Preliminary	1.05
SC-01310-S	2/15/95	Ra-226	1.28	N/A	N/A	pCi/g	0.25	Preliminary	1.28
SC-01317-S	2/15/95	Ra-226	1.25	N/A	N/A	pCi/g	0.23	Preliminary	1.25
			MAXIMUM Ra-226	1.28					
			AVERAGE Ra-226	1.19					
			FINAL Ra-226 AVE.					1.19	
SC-01302-S	02/22/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01303-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01304-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01305-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01306-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01307-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01308-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01309-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01310-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01311-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01312-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01313-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01314-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01315-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01316-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01316-C	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01317-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01318-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01319-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01320-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01321-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01322-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01323-S	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01323-C	02/15/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01101-S	02/22/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01104-S	02/14/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01111-S	02/14/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01118-S	02/14/95	TNT	NO	N/A	N/A	mg/kg	0.5	None	

Five

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP-253 2. Date: 2/28/96 3. Review Form #: 96-004
 4. Remediation Unit Number: A1004 5. Confirmation Unit Number: A1014 (map attached)
 6. Contaminants of Concern: U-238 Th-230 _____ Th-232 Ra-226 Ra-228
 TNT _____ PCB _____ PAH _____ As _____ Cr _____ Pb _____ TI
(See memo)

7. Results average below ALARA goal(s)? Yes _____ No
 8. All results below cleanup criteria? Yes _____ No
 9. Any results greater than 3X criteria? _____ Yes No
 10. Hotspots present (less than 3X criteria)? _____ Yes No

Parameter	Size	Concentration	Complies with Plan?
_____	_____	_____	_____ Yes _____ No
_____	_____	_____	_____ Yes _____ No
_____	_____	_____	_____ Yes _____ No
_____	_____	_____	_____ Yes _____ No

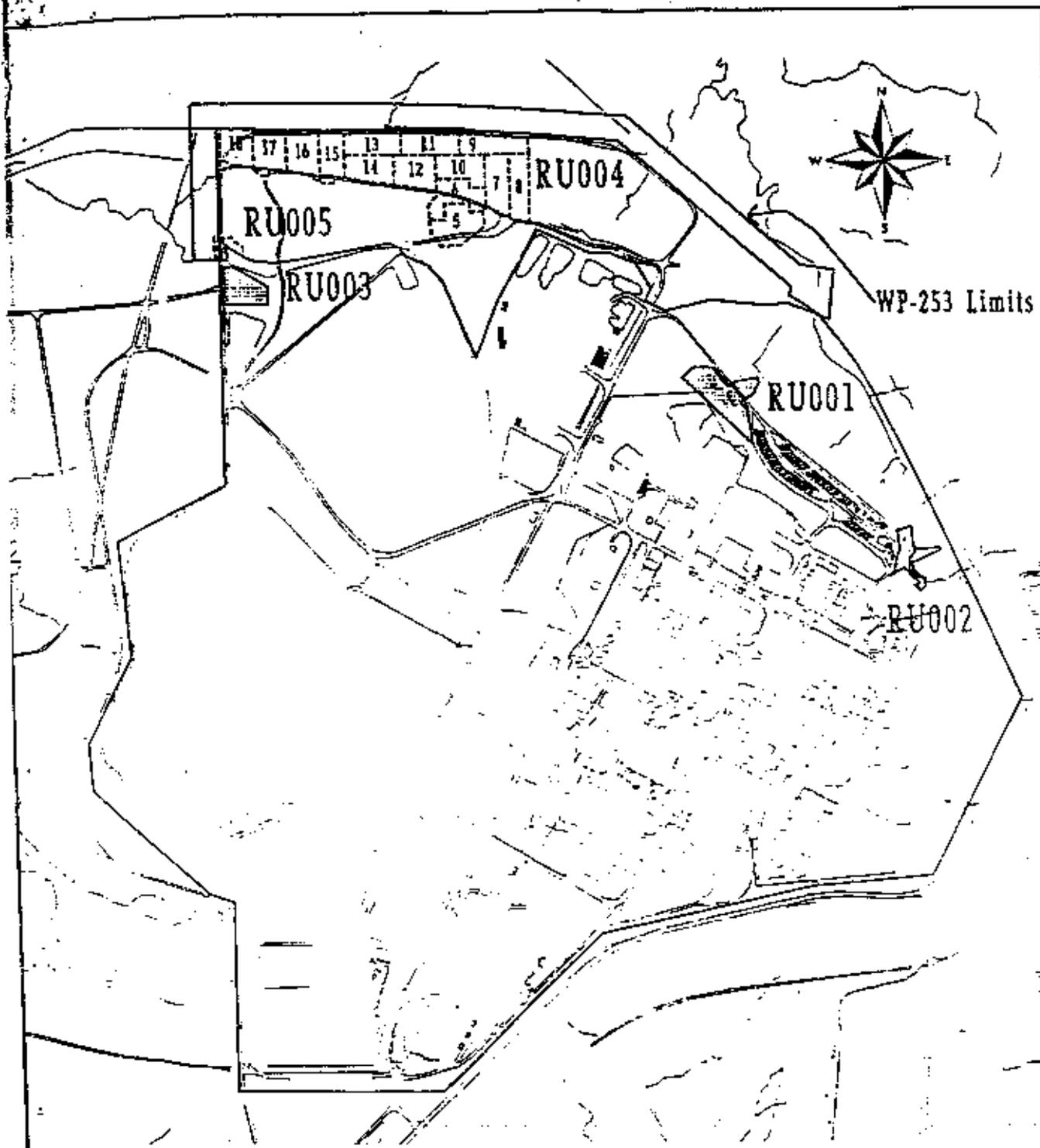
11. Reviewer: ~~_____~~ Jim Meier gsm Date: 2/28/96

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 _____ Additional Excavation Required (Section IV)
 _____ ALARA Committee Required (Section III)

SECTION II *Results are ALARA - CU is released for unrestricted use.*

14. ES&H Manager: [Signature] Date: 2/28/96
 15. DOE Project Manager/Engineer: [Signature] Date: 2/29/96
 16. Project Manager: [Signature] Date: 2/29/96
 17. Construction Engineer: [Signature] Date: 2/29/96

SEE ATTACHED RESULTS AND MAP



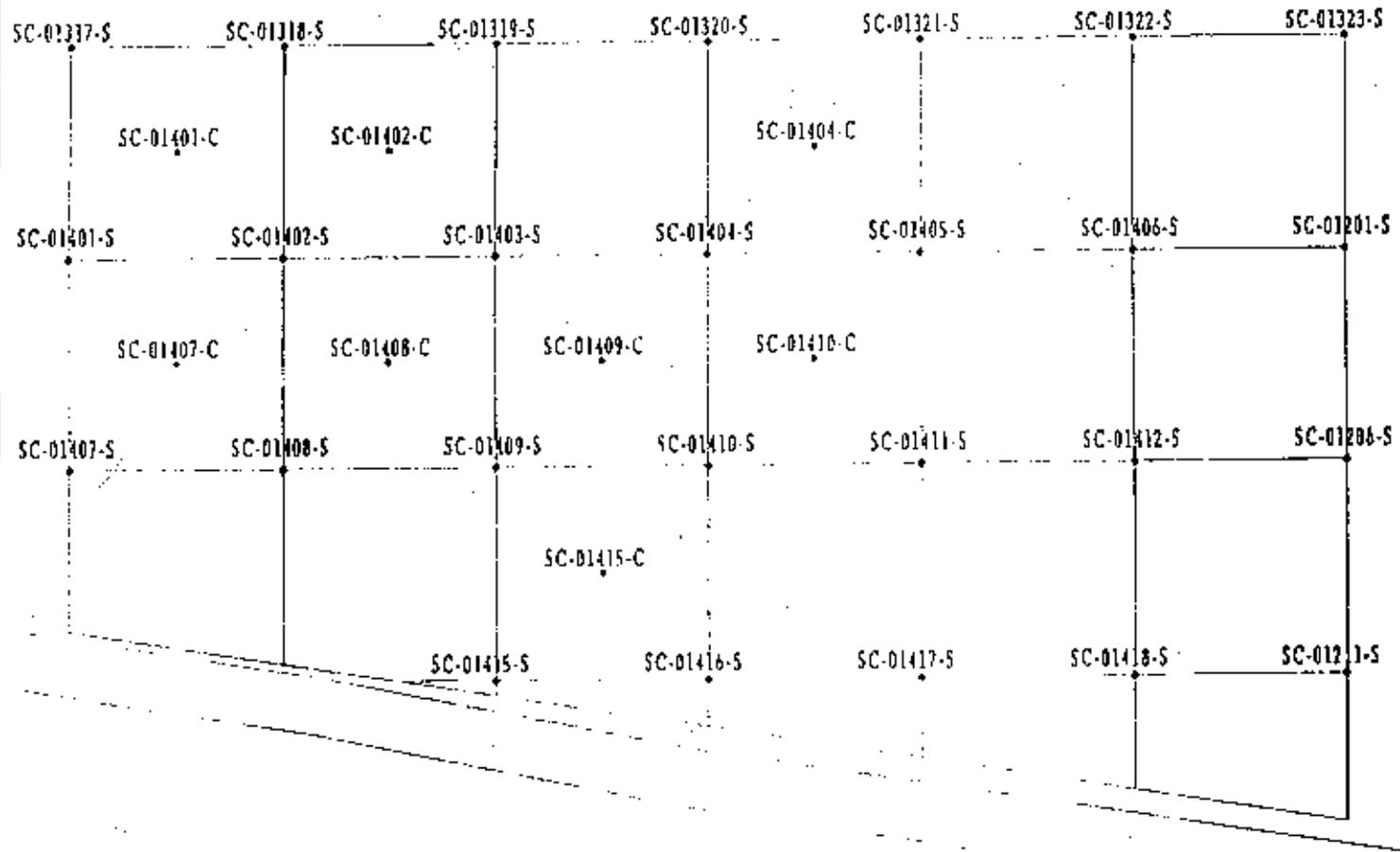
LEGEND

- Confirmed RUs under previous Work Packages
- WP 253 Boundary
- WP 253 Containment Units

100 50 0 100 200 METERS

300 150 0 300 600 FEET

<h2>Location of Remedial Units</h2>		
<h3>Figure 1-1</h3>		
PROJECT NO:	PROJECT NO. DOE/OR/21548-565	
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS	DATE: 9/95



Sample Locations in Remedial Unit RU004
Confirmation Unit CU014

Figure 2-10

EXHIBIT NO.: A/DC/032/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU014

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	QL	COMMENTS	
SC-01401-S	02/15/98	U-238	66.42	N/A	N/A	pCi/g	5.10	Preliminary	56.42
SC-01401-C	02/15/98	U-238	28.24	N/A	N/A	pCi/g	3.46	Preliminary	25.24
SC-01402-S	02/15/98	U-238	17.25	N/A	N/A	pCi/g	2.63	Preliminary	17.35
SC-01402-C	02/15/98	U-238	40.14	N/A	N/A	pCi/g	6.76	Preliminary	40.14
SC-01403-S	02/15/98	U-238	12.28	N/A	N/A	pCi/g	2.75	Preliminary	12.28
SC-01404-S	02/15/98	U-238	5.71	N/A	N/A	pCi/g	3.47	Preliminary	5.71
SC-01404-C	02/15/98	U-238	2.11	N/A	N/A	pCi/g	1.65	Preliminary	2.11
SC-01405-S	02/15/98	U-238	6.07	N/A	N/A	pCi/g	3.20	Preliminary	6.07
SC-01405-C	02/15/98	U-238	9.27	N/A	N/A	pCi/g	4.71	Preliminary	9.27
SC-01407-S	02/15/98	U-238	112.27	N/A	N/A	pCi/g	10.44	Preliminary	112.27
SC-01407-C	02/15/98	U-238	21.58	N/A	N/A	pCi/g	3.80	Preliminary	21.58
SC-01408-S	02/15/98	U-238	14.85	N/A	N/A	pCi/g	5.35	Preliminary	14.85
SC-01408-C	02/15/98	U-238	19.09	N/A	N/A	pCi/g	4.39	Preliminary	19.09
SC-01409-S	02/15/98	U-238	9.83	N/A	N/A	pCi/g	2.58	Preliminary	9.83
SC-01409-C	02/15/98	U-238	12.63	N/A	N/A	pCi/g	4.63	Preliminary	12.63
SC-01410-S	02/15/98	U-238	6.42	N/A	N/A	pCi/g	4.61	Preliminary	6.42
SC-01410-C	02/15/98	U-238	10.90	N/A	N/A	pCi/g	4.81	Preliminary	10.90
SC-01411-S	02/15/98	U-238	ND	N/A	N/A	pCi/g	2.84	Preliminary	1.42
SC-01412-S	02/15/98	U-238	8.19	N/A	N/A	pCi/g	2.80	Preliminary	8.19
SC-01415-S	02/15/98	U-238	2.12	N/A	N/A	pCi/g	2.36	Preliminary	2.12
SC-01415-C	02/15/98	U-238	ND	N/A	N/A	pCi/g	2.67	Preliminary	1.34
SC-01416-S	02/15/98	U-238	ND	N/A	N/A	pCi/g	2.73	Preliminary	1.37
SC-01417-S	02/15/98	U-238	10.87	N/A	N/A	pCi/g	3.66	Preliminary	10.87
SC-01418-S	02/15/98	U-238	4.85	N/A	N/A	pCi/g	2.53	Preliminary	4.65
MAXIMUM U-238			112.27						
AVERAGE U-238			19.07						
SC-01317-S	02/15/98	U-238	63.70	N/A	N/A	pCi/g		Preliminary	68.70
SC-01318-S	02/15/98	U-238	6.58	N/A	N/A	pCi/g		Preliminary	6.58
SC-01319-S	02/15/98	U-238	9.48	N/A	N/A	pCi/g		Preliminary	9.49
SC-01320-S	02/15/98	U-238	6.27	N/A	N/A	pCi/g		Preliminary	6.27
SC-01321-S	02/15/98	U-238	8.01	N/A	N/A	pCi/g		Preliminary	8.01
SC-01322-S	02/15/98	U-238	7.25	N/A	N/A	pCi/g		Preliminary	7.25
SC-01323-S	02/15/98	U-238	1.25	N/A	N/A	pCi/g		Preliminary	1.25
SC-01201-S	02/14/98	U-238	2.95	N/A	N/A	pCi/g		Preliminary	2.95
SC-01205-S	02/14/98	U-238	21.44	N/A	N/A	pCi/g		Preliminary	21.44
SC-01211-S	02/14/98	U-238	8.42	N/A	N/A	pCi/g		Preliminary	8.42
MAXIMUM U-238 AVE.									17.01
SC-01401-S	02/15/98	Ra-226	1.00	2.27		pCi/g	0.39	Rn not ingrown	2.27
SC-01401-C	02/15/98	Ra-226	0.77	1.75		pCi/g	0.29	Rn not ingrown	1.75
SC-01402-S	02/15/98	Ra-226	0.92	2.09		pCi/g	0.27	Rn not ingrown	2.09
SC-01402-C	02/15/98	Ra-226	0.82	1.86		pCi/g	0.36	Rn not ingrown	1.86
SC-01407-S	02/15/98	Ra-226	1.59	3.81		pCi/g	0.4	Rn not ingrown	3.81
SC-01407-C	02/15/98	Ra-226	0.60	1.82		pCi/g	0.29	Rn not ingrown	1.82
SC-01408-C	02/15/98	Ra-226	0.98	2.18		pCi/g	0.28	Rn not ingrown	2.18
MAXIMUM Ra-226			3.81						
AVERAGE Ra-226			2.23						
SC-01317-S	02/15/98	Ra-226	0.88	2.00		pCi/g	0.34	Rn not ingrown	2.00
SC-01323-S	02/15/98	Ra-226	0.86	1.96		pCi/g	0.24	Rn not ingrown	1.96
SC-01201-S	02/14/98	Ra-226	0.93	2.11		pCi/g	0.42	Rn not ingrown	2.11
SC-01205-S	02/14/98	Ra-226	0.72	1.63		pCi/g	0.26	Rn not ingrown	1.63
SC-01211-S	02/14/98	Ra-226	1.81	4.11		pCi/g	0.49	Rn not ingrown	4.11
MAXIMUM Ra-226 AVE.									2.26
SC-01401-S	02/15/98	Ra-226	1.12	N/A	N/A	pCi/g	0.58	Preliminary	1.12
SC-01407-S	02/15/98	Ra-226	1.35	N/A	N/A	pCi/g	0.65	Preliminary	1.35
MAXIMUM Ra-226			1.35						
AVERAGE Ra-226			1.24						
SC-01317-S	02/15/98	Ra-226	1.25	N/A	N/A	pCi/g	0.23	Preliminary	1.25
MAXIMUM Ra-226 AVE.									1.24
SC-01404-S	02/15/98	Th-230	1.52	N/A	N/A	pCi/g	0.11	Preliminary	1.52
SC-01404-C	02/15/98	Th-230	0.81	N/A	N/A	pCi/g	0.09	Preliminary	0.81
SC-01409-S	02/15/98	Th-230	1.79	N/A	N/A	pCi/g	0.08	Preliminary	1.79
SC-01410-S	02/15/98	Th-230	1.54	N/A	N/A	pCi/g	0.04	Preliminary	1.54
SC-01410-C	02/15/98	Th-230	1.78	N/A	N/A	pCi/g	0.20	Preliminary	1.78
SC-01415-C	02/15/98	Th-230	1.51	N/A	N/A	pCi/g	0.13	Preliminary	1.51
MAXIMUM Th-230			1.79						
AVERAGE Th-230			1.49						
FINAL Th-230 AVE.									1.49
SC-01401-S	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01401-C	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01402-S	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01402-C	02/15/98	TNT	0.06	N/A	N/A	mg/kg	0.5	Sample sent off site	
SC-01402-C-R	02/22/98	TNT	ND	N/A	N/A	mg/kg	0.2	Sample sent off site	
SC-01403-S	02/15/98	TNT	0.04	N/A	N/A	mg/kg	0.5	Sample sent off site	
SC-01403-S-R	02/22/98	TNT	ND	N/A	N/A	mg/kg	0.2	Sample sent off site	
SC-01404-S	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01404-C	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01405-S	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01405-C	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01407-S	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01407-C	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01408-S-R	02/22/98	TNT	ND	N/A	N/A	mg/kg	0.2	Sample sent off site	
SC-01408-S	02/15/98	TNT	0.08	N/A	N/A	mg/kg	0.5	Sample sent off site	
SC-01408-C-R	02/22/98	TNT	ND	N/A	N/A	mg/kg	0.2	Sample sent off site	
SC-01408-C	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	
SC-01408-S	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.5	none	

SC-01409-G	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01410-S	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01410-C	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01411-S	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01412-S	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01415-S	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01415-C	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01416-S	02/18/96	TNT	NO	0.02	N/A	N/A	mg/kg	0.5	Sample sent off site
SC-01416-S-R	02/22/96	TNT	NO		N/A	N/A	mg/kg	0.2	Sample sent off site
SC-01417-S	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01418-S-R	02/22/96	TNT	NO		N/A	N/A	mg/kg	0.2	Sample sent off site
SC-01418-S	02/18/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01317-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01318-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01319-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01320-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01321-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01322-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01323-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01201-S	02/14/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01206-S	02/14/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01211-S	02/14/96	TNT	NO		N/A	N/A	mg/kg	0.5	none

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP053 2. Date: 3/4/96 3. Review Form #: 96-009
 4. Remediation Unit Number: R1004 5. Confirmation Unit Number: C1015 (map attached)
 6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb Ti
(Substance)

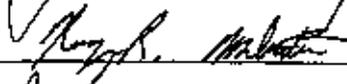
7. Results average below ALARA goal(s)? Yes No
 8. All results below cleanup criteria? Yes No
 9. Any results greater than 3X criteria? Yes No
 10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

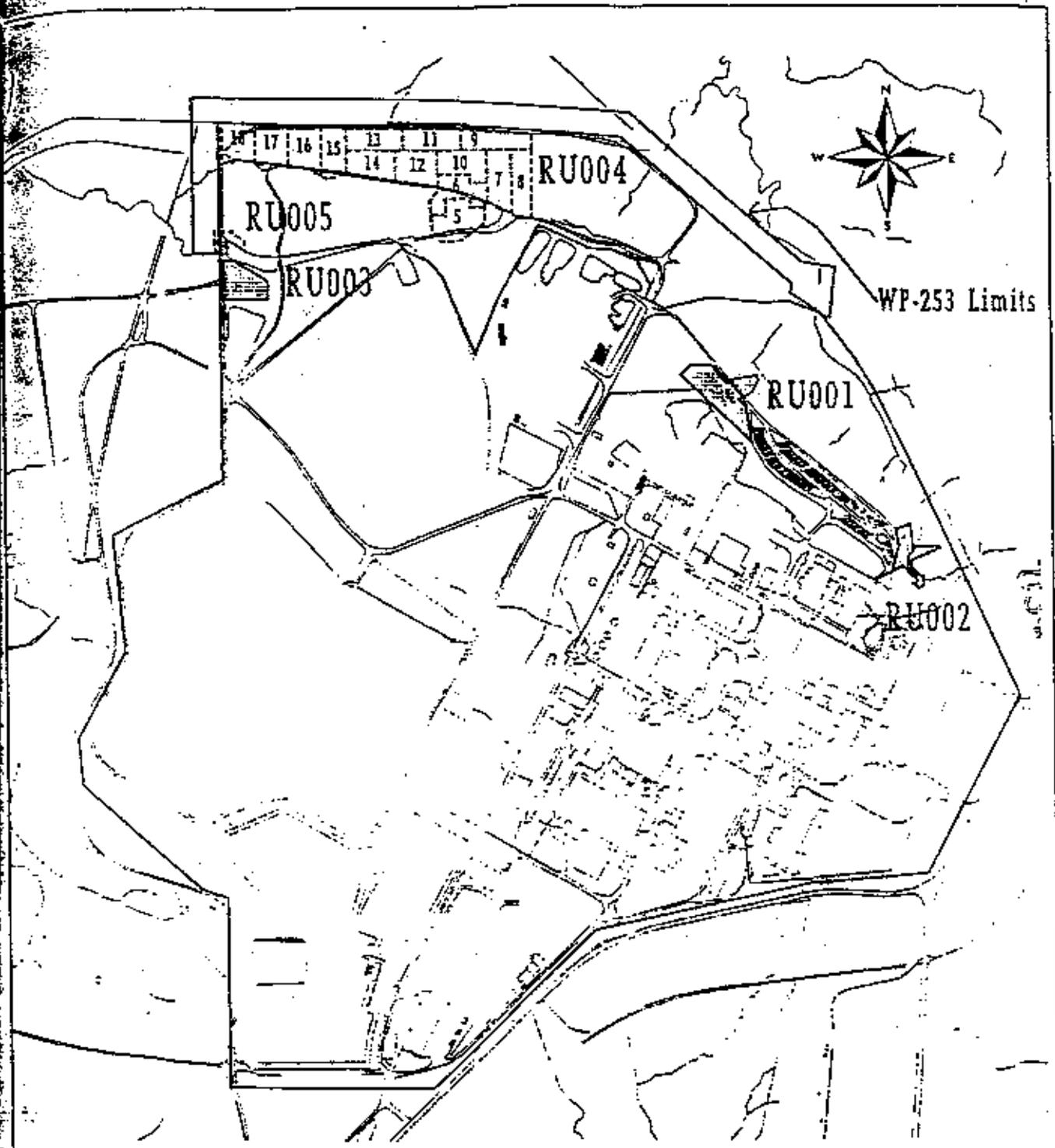
11. Reviewer: DAVE FISH  Date: 3/4/96

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II Results are ALARA. CU is released for unrestricted use.

14. ES&H Manager:  Date: 3/5/96
 15. DOE Project Manager/Engineer: Thomas C. Pauling Date: 3/5/96
 16. Project Manager:  Date: 3/6/96
 17. Construction Engineer: Ward Ferguson Date: 3/6/96

SEE ATTACHED RESULTS AND MAP



LEGEND

-  Confirmed RUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Contamination Limits

100 50 0 100 200 METERS



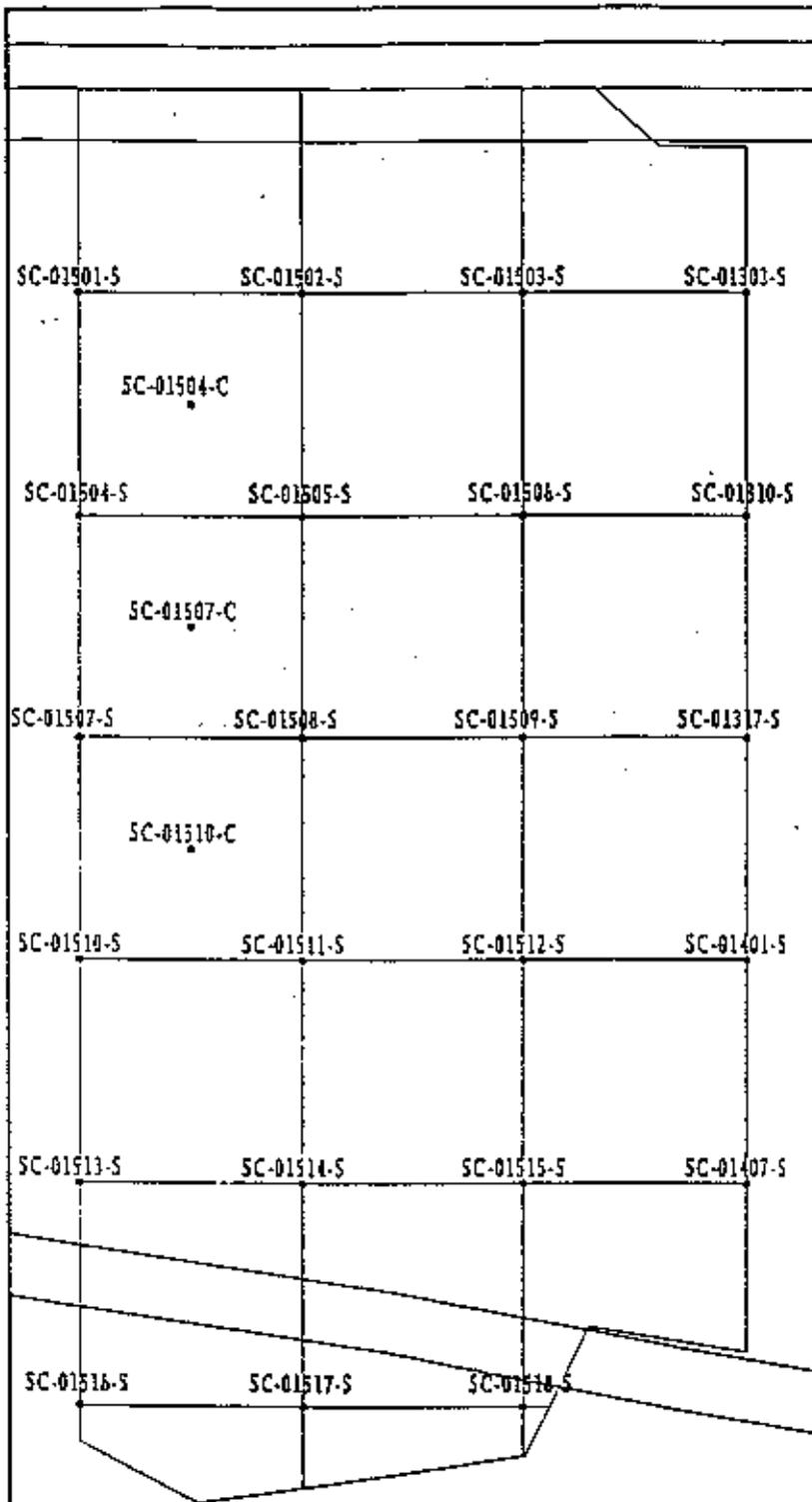
100 150 0 300 600 FEET



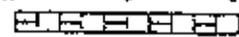
Location of Remedial Units

Figure 1-1

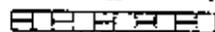
FIGURE NO:	REPORT NO.: DOE/OR/21548-565
ORGANIZATION: MGL	DATE: 9/95
DRAWN BY: WSSRAP GIS	



10 5 0 METERS



30 15 0 FEET



Sample Locations in Remedial Unit RU004
Confirmation Unit CU015

Figure 2-11

EXHIBIT NO.:	A/DC/033/0895	REPORT NO.:	DOE/OR/31548-565
ORIGINATOR:	MGL	DRAWN BY:	WSSRAP GIS
		DATE:	8/95

Soil Confirmation Results for CU015

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	QL	COMMENTS	
SC-01501-S	02/19/98	U-238	4.77	N/A	N/A	pCi/g		Preliminary	4.77
SC-01502-S	02/19/98	U-238	48.75	N/A	N/A	pCi/g		Preliminary	48.75
SC-01503-S	02/19/98	U-238	5.18	N/A	N/A	pCi/g		Preliminary	5.18
SC-01504-S	02/19/98	U-238	3.29	N/A	N/A	pCi/g		Preliminary	3.28
SC-01504-C	02/19/98	U-238	NO	N/A	N/A	pCi/g	4.09	Preliminary	2.05
SC-01505-S	02/19/98	U-238	43.40	N/A	N/A	pCi/g		Preliminary	43.40
SC-01506-S	02/19/98	U-238	5.82	N/A	N/A	pCi/g		Preliminary	5.62
SC-01507-S	02/19/98	U-238	7.22	N/A	N/A	pCi/g		Preliminary	7.22
SC-01507-C	02/19/98	U-238	NO	N/A	N/A	pCi/g	4.39	Preliminary	2.20
SC-01508-S	02/19/98	U-238	4.53	N/A	N/A	pCi/g		Preliminary	4.53
SC-01508-C	02/19/98	U-238	NO	N/A	N/A	pCi/g	4.29	Preliminary	2.15
SC-01510-S	02/19/98	U-238	3.11	N/A	N/A	pCi/g		Preliminary	3.11
SC-01510-C	02/19/98	U-238	44.75	N/A	N/A	pCi/g		Preliminary	44.75
SC-01511-S	02/19/98	U-238	8.81	N/A	N/A	pCi/g		Preliminary	8.81
SC-01512-S	02/19/98	U-238	5.01	N/A	N/A	pCi/g		Preliminary	5.01
SC-01513-S	02/19/98	U-238	NO	N/A	N/A	pCi/g	3.94	Preliminary	1.97
SC-01514-S	02/19/98	U-238	28.89	N/A	N/A	pCi/g		Preliminary	28.89
SC-01515-S	02/19/98	U-238	22.54	N/A	N/A	pCi/g		Preliminary	22.54
SC-01516-S	02/28/98	U-238	NO	N/A	N/A	pCi/g	2.82	Preliminary	1.31
SC-01517-S	02/28/98	U-238	2.64	N/A	N/A	pCi/g		Preliminary	2.64
SC-01518-S	02/28/98	U-238	NO	N/A	N/A	pCi/g	2.75	Preliminary	1.38
MAXIMUM U-238			48.75						
AVERAGE U-238			11.18						
SC-01401-S	02/15/98	U-238	85.42	N/A	N/A	pCi/g		Preliminary	85.42
SC-01407-S	02/15/98	U-238	112.27	N/A	N/A	pCi/g		Preliminary	112.27
SC-01303-S	02/15/98	U-238	43.84	N/A	N/A	pCi/g		Preliminary	43.84
SC-01310-S	02/15/98	U-238	74.35	N/A	N/A	pCi/g		Preliminary	74.35
SC-01317-S	02/15/98	U-238	68.70	N/A	N/A	pCi/g		Preliminary	68.70
MAXIMUM U-238			112.27						
AVERAGE U-238			74.35						
								FINAL U-238 AVE:	24.27
SC-01501-S	02/19/98	Ra-226	1.24	3.81		pCi/g		Rn not ingrown	2.81
SC-01502-S	02/19/98	Ra-226	1.10	2.50		pCi/g		Rn not ingrown	2.50
SC-01503-S	02/19/98	Ra-226	0.85	1.83		pCi/g		Rn not ingrown	1.83
SC-01504-S	02/19/98	Ra-226	1.00	2.27		pCi/g		Rn not ingrown	2.27
SC-01504-C	02/19/98	Ra-226	0.98	2.22		pCi/g		Rn not ingrown	2.22
SC-01505-S	02/19/98	Ra-226	1.08	2.47		pCi/g		Rn not ingrown	2.47
SC-01506-S	02/19/98	Ra-226	0.96	2.18		pCi/g		Rn not ingrown	2.18
SC-01507-S	02/19/98	Ra-226	1.01	2.29		pCi/g		Rn not ingrown	2.29
SC-01507-C	02/19/98	Ra-226	0.93	2.11		pCi/g		Rn not ingrown	2.11
SC-01508-S	02/19/98	Ra-226	0.85	1.93		pCi/g		Rn not ingrown	1.93
SC-01508-C	02/19/98	Ra-226	0.84	1.91		pCi/g		Rn not ingrown	1.91
SC-01510-S	02/19/98	Ra-226	0.68	1.54		pCi/g		Rn not ingrown	1.54
SC-01510-C	02/19/98	Ra-226	1.09	2.47		pCi/g		Rn not ingrown	2.47
SC-01511-S	02/19/98	Ra-226	0.70	1.59		pCi/g		Rn not ingrown	1.59
SC-01512-S	02/19/98	Ra-226	1.04	2.36		pCi/g		Rn not ingrown	2.36
SC-01513-S	02/19/98	Ra-226	0.89	2.02		pCi/g		Rn not ingrown	2.02
SC-01514-S	02/19/98	Ra-226	0.98	2.22		pCi/g		Rn not ingrown	2.22
SC-01515-S	02/19/98	Ra-226	0.94	2.13		pCi/g		Rn not ingrown	2.13
SC-01516-S	02/28/98	Ra-226	0.76	1.73		pCi/g		Rn not ingrown	1.73
SC-01517-S	02/28/98	Ra-226	0.76	1.73		pCi/g		Rn not ingrown	1.73
SC-01518-S	02/28/98	Ra-226	0.86	1.95		pCi/g		Rn not ingrown	1.95
MAXIMUM Ra-226			1.24						
AVERAGE Ra-226			0.93						
SC-01401-S	02/15/98	Ra-226	1.00	2.27		pCi/g		Rn not ingrown	1.00
SC-01407-S	02/15/98	Ra-226	1.59	3.61		pCi/g		Rn not ingrown	3.61
SC-01303-S	02/15/98	Ra-226	0.92	2.09		pCi/g		Rn not ingrown	0.92
SC-01310-S	02/15/98	Ra-226	1.40	3.18		pCi/g		Rn not ingrown	1.40
SC-01317-S	02/15/98	Ra-226	0.56	2.00		pCi/g		Rn not ingrown	0.56
MAXIMUM Ra-226			1.59						
AVERAGE Ra-226			0.86						
								FINAL Ra-226 AVE:	2.91
SC-01501-S	02/19/98	Ra-228	1.49	N/A	N/A	pCi/g			1.49
SC-01502-S	02/19/98	Ra-228	0.96	N/A	N/A	pCi/g			0.96
SC-01503-S	02/19/98	Ra-228	NO	N/A	N/A	pCi/g	1.26		0.83
SC-01504-S	02/19/98	Ra-228	1.20	N/A	N/A	pCi/g			1.20
SC-01504-C	02/19/98	Ra-228	1.08	N/A	N/A	pCi/g			1.08
SC-01505-S	02/19/98	Ra-228	1.53	N/A	N/A	pCi/g			1.53
SC-01506-S	02/19/98	Ra-228	1.31	N/A	N/A	pCi/g			1.31
SC-01507-S	02/19/98	Ra-228	1.35	N/A	N/A	pCi/g			1.35
SC-01507-C	02/19/98	Ra-228	NO	N/A	N/A	pCi/g	1.15		0.58
SC-01508-S	02/19/98	Ra-228	1.07	N/A	N/A	pCi/g			1.07
SC-01508-C	02/19/98	Ra-228	0.90	N/A	N/A	pCi/g			0.90
SC-01510-S	02/19/98	Ra-228	1.24	N/A	N/A	pCi/g			1.24
SC-01510-C	02/19/98	Ra-228	1.04	N/A	N/A	pCi/g			1.04
SC-01511-S	02/19/98	Ra-228	1.12	N/A	N/A	pCi/g			1.12
SC-01512-S	02/19/98	Ra-228	1.06	N/A	N/A	pCi/g			1.06
SC-01513-S	02/19/98	Ra-228	0.96	N/A	N/A	pCi/g			0.96
SC-01514-S	02/19/98	Ra-228	1.20	N/A	N/A	pCi/g			1.20
SC-01515-S	02/19/98	Ra-228	1.19	N/A	N/A	pCi/g			1.19
SC-01516-S	02/28/98	Ra-228	1.14	N/A	N/A	pCi/g			1.14
SC-01517-S	02/28/98	Ra-228	0.68	N/A	N/A	pCi/g			0.68
SC-01518-S	02/28/98	Ra-228	1.06	N/A	N/A	pCi/g			1.06
MAXIMUM Ra-228			1.53						
AVERAGE Ra-228			1.04						
SC-01401-S	02/15/98	Ra-228	1.12	N/A	N/A	pCi/g		Preliminary	1.12
SC-01407-S	02/15/98	Ra-228	1.35	N/A	N/A	pCi/g	0.65	Preliminary	1.35
SC-01303-S	02/15/98	Ra-228	1.05	N/A	N/A	pCi/g		Preliminary	1.05
SC-01310-S	02/15/98	Ra-228	1.28	N/A	N/A	pCi/g		Preliminary	1.28
SC-01317-S	02/15/98	Ra-228	1.25	N/A	N/A	pCi/g		Preliminary	1.25
MAXIMUM Ra-228			1.35						
AVERAGE Ra-228			1.12						
								FINAL Ra-228 AVE:	1.12

SC-01501-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01502-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01503-S	02/19/96	TNT		N/A	N/A	mg/kg	0.5	Sample Sent Offsite
SC-01503-S-R	02/22/96	TNT	NO	N/A	N/A	mg/kg	0.2	Sample Sent Offsite
SC-01504-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01504-C	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01505-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01508-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01507-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01507-C	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01508-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01508-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01510-S	02/19/96	TNT	0.08	N/A	N/A	mg/kg	0.5	Sample Sent Offsite
SC-01510-S-R	02/22/96	TNT	NO	N/A	N/A	mg/kg	0.2	Sample Sent Offsite
SC-01510-C	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01511-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01512-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01513-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01514-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01515-S	02/19/96	TNT	0.07	N/A	N/A	mg/kg	0.5	Sample Sent Offsite
SC-01515-S-R	02/22/96	TNT	NO	N/A	N/A	mg/kg	0.2	Sample Sent Offsite
SC-01516-S	02/28/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01517-S	02/28/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01518-S	02/28/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01303-S	02/15/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01310-S	02/15/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01317-S	02/15/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01401-S	02/15/96	TNT	NO	N/A	N/A	mg/kg	0.5	None
SC-01407-S	02/15/96	TNT	NO	N/A	N/A	mg/kg	0.5	None

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WR 253 2. Date: 3/4/96 3. Review Form #: 96-010
 4. Remediation Unit Number: R1004 5. Confirmation Unit Number: CN016 (map attached)
 6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb TI
(select all)

7. Results average below ALARA goal(s)? Yes No
 8. All results below cleanup criteria? Yes No
 9. Any results greater than 3X criteria? Yes No
 10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No

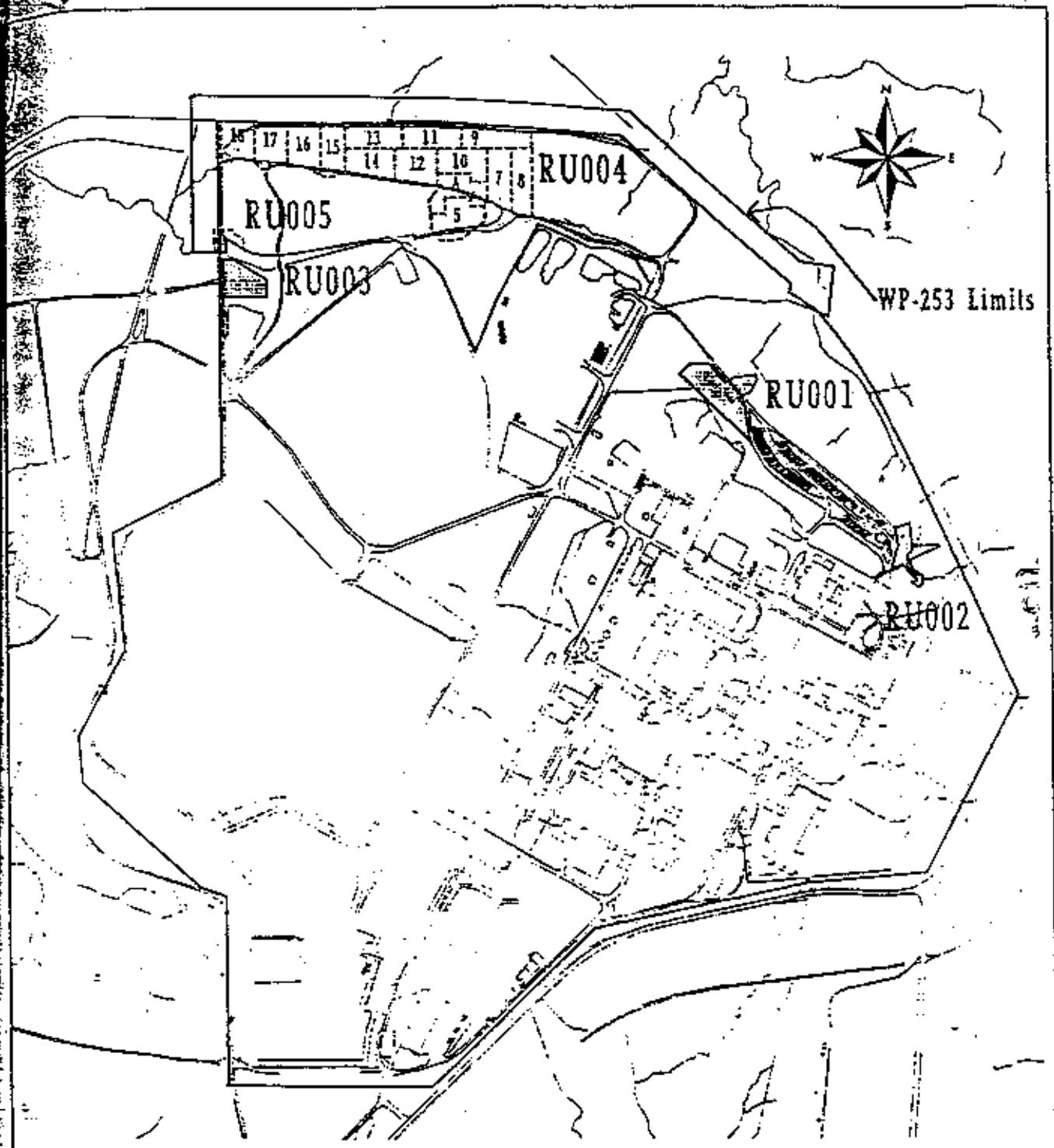
11. Reviewer: CHAG K. L. H. [Signature] Date: 3/4/96

12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

14. ES&H Manager: [Signature] Date: 3/5/96
 15. DOE Project Manager/Engineer: Thomas C. Pauling Date: 3/5/96
 16. Project Manager: [Signature] Date: 3/6/96
 17. Construction Engineer: Neil Ferguson Date: 3/6/96

SEE ATTACHED RESULTS AND MAP



LEGEND

-  Confirmed RUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Containment Cells

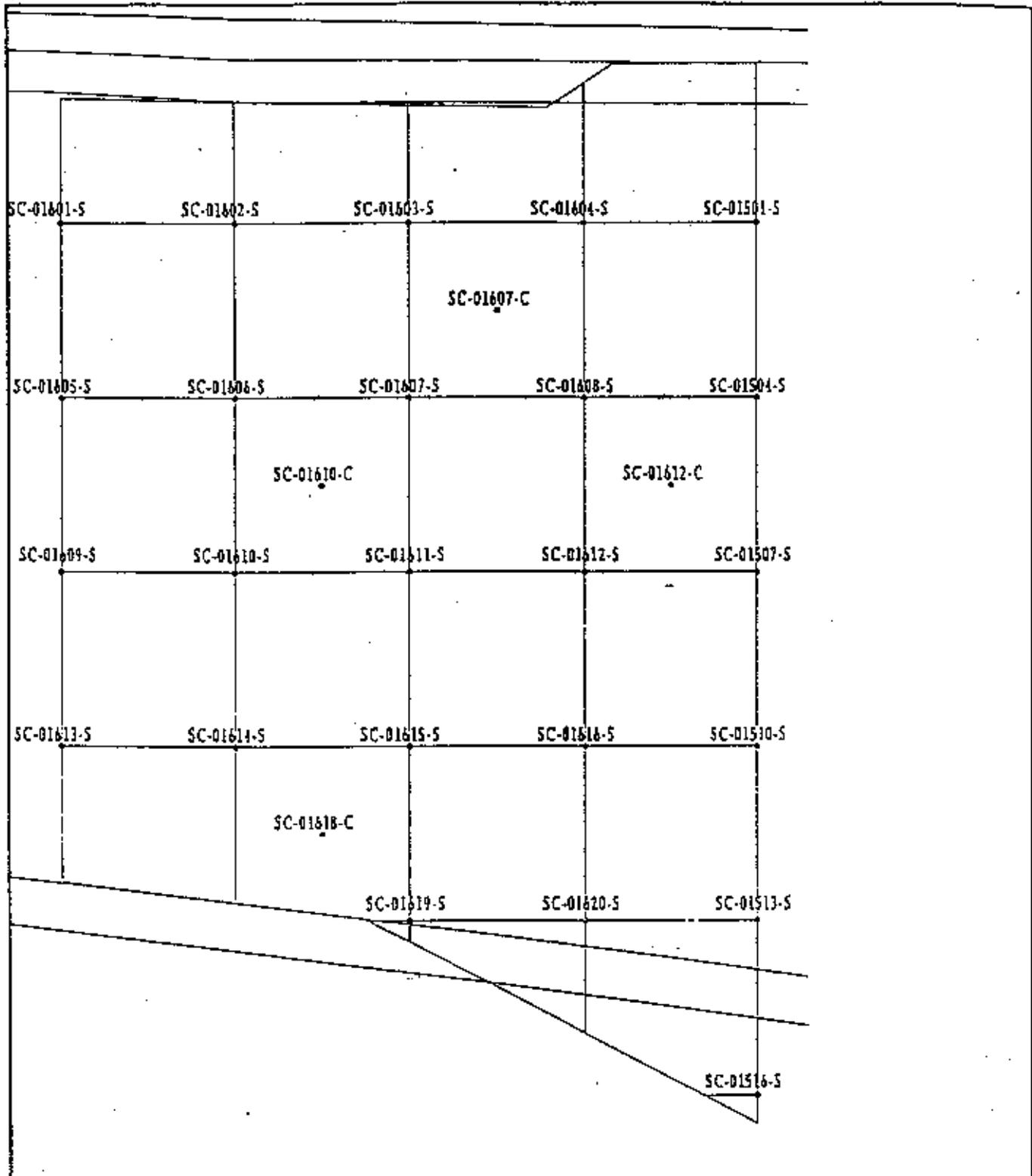
100 50 0 100 200 METERS

100 150 0 300 600 FEET

Location of Remedial Units

Figure 1-1

EXHIBIT NO.:	REPORT NO.:	DOE/OR/215-48-565
ORIGINATOR:	DRAWN BY:	DATE:
MGL	WSSRAP GIS	9/95



10 5 0 METERS

30 15 0 FEET

Sample Locations in Remedial Unit RU004
Confirmation Unit CU016

Figure 2-12

EXHIBIT NO.:	A/DC/034/0895	REPORT NO.:	DOE/0R/01548-565
ORIGINATOR:	MGL	DRAWN BY:	WSSRAP GIS
		DATE:	8/95

Soil Confirmation Results for CU016

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	
SC-01601-S	02/19/96	U-238	9.77	N/A	N/A	pCi/g		Preliminary	9.77
SC-01602-S	02/19/96	U-238	12.25	N/A	N/A	pCi/g		Preliminary	12.25
SC-01603-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	4.68	Preliminary	2.33
SC-01604-S	02/19/96	U-238	12.88	N/A	N/A	pCi/g		Preliminary	12.88
SC-01605-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	2.68	Preliminary	1.44
SC-01606-S	02/19/96	U-238	3.18	N/A	N/A	pCi/g		Preliminary	3.18
SC-01607-S	02/19/96	U-238	5.90	N/A	N/A	pCi/g		Preliminary	5.90
SC-01607-C	02/19/96	U-238	27.23	N/A	N/A	pCi/g		Preliminary	27.23
SC-01608-S	02/19/96	U-238	5.97	N/A	N/A	pCi/g		Preliminary	5.97
SC-01609-S	02/19/96	U-238	5.25	N/A	N/A	pCi/g		Preliminary	5.25
SC-01610-S	02/19/96	U-238	4.15	N/A	N/A	pCi/g		Preliminary	4.15
SC-01610-C	02/19/96	U-238	NO	N/A	N/A	pCi/g	4.38	Preliminary	2.19
SC-01611-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	4.58	Preliminary	2.30
SC-01612-S	02/19/96	U-238	25.72	N/A	N/A	pCi/g		Preliminary	25.72
SC-01612-C	02/19/96	U-238	1.83	N/A	N/A	pCi/g		Preliminary	1.83
SC-01613-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	2.71	Preliminary	1.38
SC-01614-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	4.60	Preliminary	2.33
SC-01615-S	02/19/96	U-238	58.71	N/A	N/A	pCi/g		Preliminary	58.71
SC-01616-S	02/19/96	U-238	2.02	N/A	N/A	pCi/g		Preliminary	2.02
SC-01618-C	2/19/96	U-238	NO	N/A	N/A	pCi/g	2.88	Preliminary	1.43
SC-01619-S	02/28/96	U-238	NO	N/A	N/A	pCi/g	2.71	Preliminary	1.36
SC-01620-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	2.62	Preliminary	1.31
MAXIMUM U-238			58.71						
AVERAGE U-238			7.94						
SC-01501-S	02/19/96	U-238	4.77	N/A	N/A	pCi/g		Preliminary	4.77
SC-01504-S	02/19/96	U-238	3.29	N/A	N/A	pCi/g		Preliminary	3.29
SC-01507-S	02/19/96	U-238	7.22	N/A	N/A	pCi/g		Preliminary	7.22
SC-01510-S	02/19/96	U-238	3.11	N/A	N/A	pCi/g		Preliminary	3.11
SC-01513-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	3.94	Preliminary	1.97
SC-01516-S	02/28/96	U-238	NO	N/A	N/A	pCi/g	2.16	Preliminary	1.08
FINAL U-238 AVE: 7.58									
SC-01601-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01602-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01603-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01604-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01605-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01606-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01607-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01607-C	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01608-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01609-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01610-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01610-C	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01611-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01612-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01612-C	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01613-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01614-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01615-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01616-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01618-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01619-S	02/28/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01620-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01501-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01504-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01507-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	Sample Sent Offsite	
SC-01510-S	02/19/96	TNT	0.09	N/A	N/A	mg/kg	0.5	None	
SC-01510-S-R	02/22/96	TNT	NO	N/A	N/A	mg/kg	0.2	Sample Sent Offsite	
SC-01513-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01516-S	02/28/96	TNT	NO	N/A	N/A	mg/kg	0.5	None	

ALC

SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WP-253 2. Date: 3/4/96 3. Review Form #: 96-011

4. Remediation Unit Number: RU004 5. Confirmation Unit Number: CU017 (map attached)

6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb TI
(See Appendix)

7. Results average below ALARA goal(s)? Yes No

8. All results below cleanup criteria? Yes No

9. Any results greater than 3X criteria? Yes No

10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No

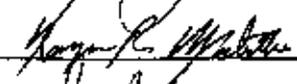
11. Reviewer: DAVID KISH  Date: 3/4/96

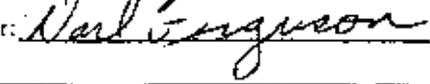
12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section I)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II *Results are ALARA. CU is released for unrestricted use.*

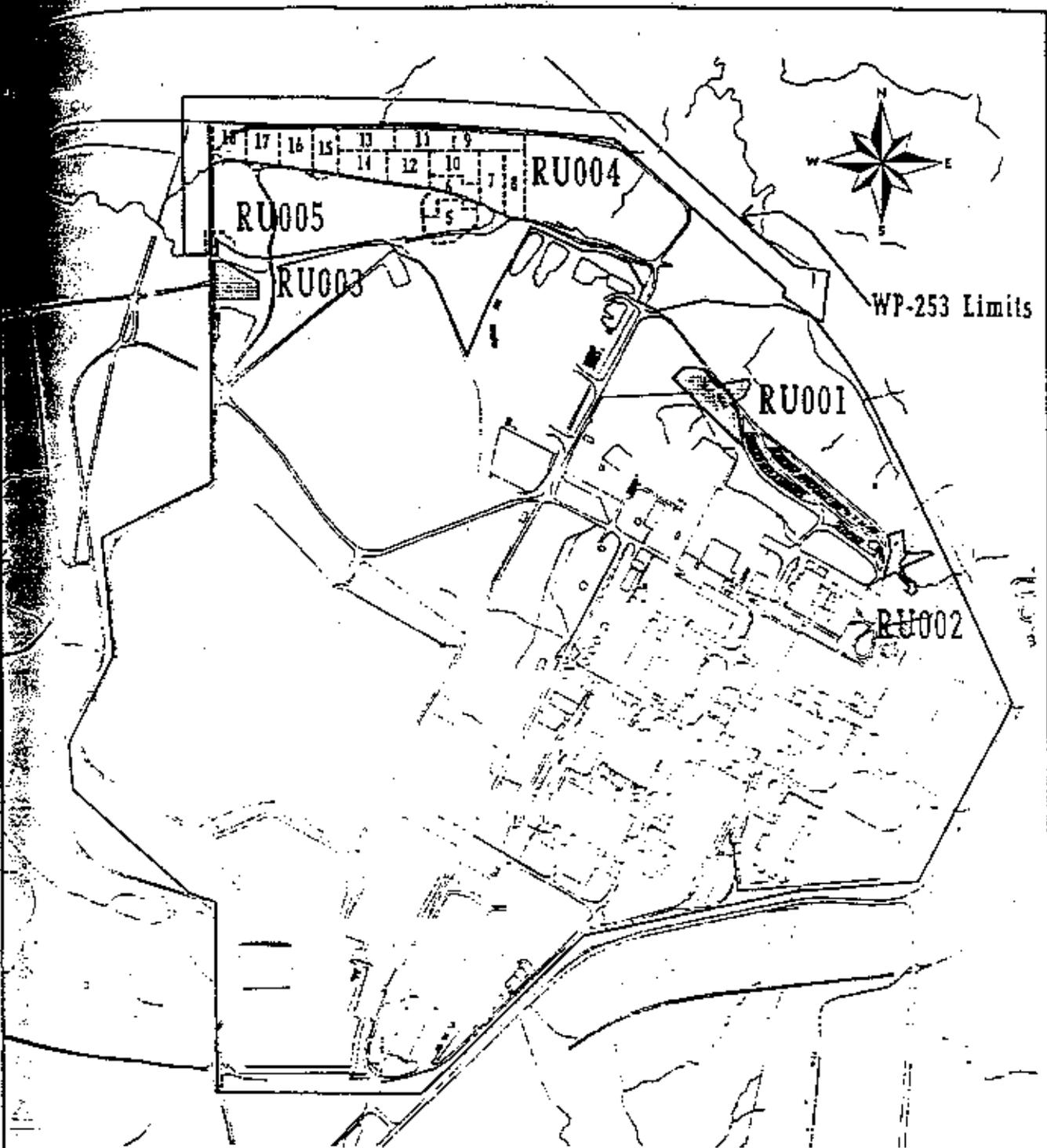
14. ES&H Manager:  Date: 3/5/96

15. DOE Project Manager/Engineer: Thomas C. Paulay Date: 3/5/96

16. Project Manager:  Date: 3/6/96

17. Construction Engineer:  Date: 3/6/96

SEE ATTACHED RESULTS AND MAP



LEGEND

-  Confirmed RUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Contamination Units

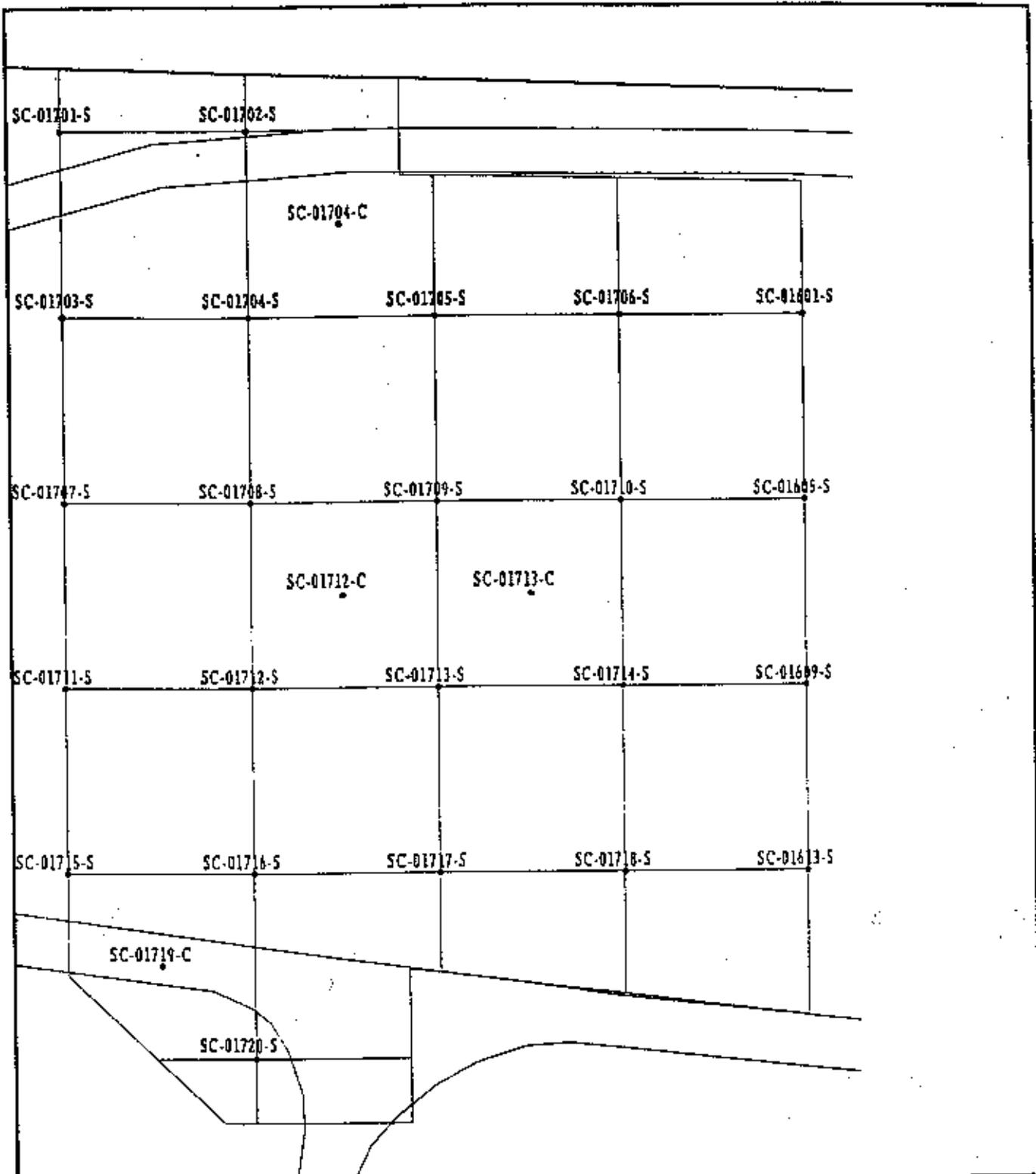
100 50 0 100 200 METERS

300 150 0 300 600 FEET

Location of Remedial Units

Figure 1-1

PROJECT NO.:	REPORT NO. DOE/OR/21548-565
ORIGINATOR: MGL	DATE: 9/95
DRAWN BY: WSSRAP GIS	



10 5 0 METERS

30 15 0 FEET

Sample Locations in Remedial Unit RU004	
Confirmation Unit CU017	
Figure 2-13	
EXHIBIT NO.: A/DC/035/0895	REPORT NO.: DOE/OR/3154B-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU017

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS		
SC-01701-S	02/22/96	U-238		8.06	N/A	N/A	pCi/g	2.38	Preliminary	8.06
SC-01702-S	02/22/96	U-238	NO	N/A	N/A	pCi/g	2.73	Preliminary		1.37
SC-01703-S	02/20/96	U-238	NO	N/A	N/A	pCi/g	4.29	Preliminary		2.15
SC-01704-S	02/20/96	U-238		4.65	N/A	N/A	pCi/g	2.45	Preliminary	4.65
SC-01704-C	02/20/96	U-238	NO	N/A	N/A	pCi/g	4.02	Preliminary		2.01
SC-01705-S	02/20/96	U-238		5.36	N/A	N/A	pCi/g	4.02	Preliminary	5.36
SC-01706-S	02/20/96	U-238		7.60	N/A	N/A	pCi/g	3.80	Preliminary	7.60
SC-01707-S	02/20/96	U-238		10.70	N/A	N/A	pCi/g	4.63	Preliminary	10.70
SC-01708-S	02/20/96	U-238		2.82	N/A	N/A	pCi/g	2.08	Preliminary	2.82
SC-01709-S	02/20/96	U-238		2.57	N/A	N/A	pCi/g	2.15	Preliminary	2.57
SC-01710-S	02/20/96	U-238		45.99	N/A	N/A	pCi/g	6.99	Preliminary	45.99
SC-01711-S	02/20/96	U-238		9.03	N/A	N/A	pCi/g	2.71	Preliminary	9.03
SC-01712-S	02/20/96	U-238		7.12	N/A	N/A	pCi/g	2.13	Preliminary	7.12
SC-01712-C	02/20/96	U-238		8.71	N/A	N/A	pCi/g	2.58	Preliminary	8.71
SC-01713-S	02/20/96	U-238		12.41	N/A	N/A	pCi/g	2.58	Preliminary	12.41
SC-01713-C	02/20/96	U-238		4.91	N/A	N/A	pCi/g	3.65	Preliminary	4.91
SC-01714-S	02/20/96	U-238		34.55	N/A	N/A	pCi/g	3.82	Preliminary	34.55
SC-01715-S	02/20/96	U-238		5.09	N/A	N/A	pCi/g	1.92	Preliminary	5.09
SC-01716-S	02/20/96	U-238	NO	N/A	N/A	pCi/g	4.49	Preliminary		2.25
SC-01717-S	02/20/96	U-238	NO	N/A	N/A	pCi/g	2.74	Preliminary		1.37
SC-01718-S	02/20/96	U-238	NO	N/A	N/A	pCi/g	2.78	Preliminary		1.39
SC-01719-C	02/28/96	U-238		3.34	N/A	N/A	pCi/g	2.44	Preliminary	3.34
SC-01720-S	02/28/96	U-238		7.88	N/A	N/A	pCi/g	2.38	Preliminary	7.88
				MAXIMUM U-238	45.99					
				AVERAGE U-238	7.88					
SC-01801-S	02/19/96	U-238		9.77	N/A	N/A	pCi/g		Preliminary	9.77
SC-01805-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	2.86	Preliminary		1.44
SC-01809-S	02/19/96	U-238		5.25	N/A	N/A	pCi/g		Preliminary	5.25
SC-01813-S	02/19/96	U-238	NO	N/A	N/A	pCi/g	2.71	Preliminary		1.36
FINAL U-238 AVE. 7.75										
SC-01701-S	02/22/96	Ra-226		0.95	2.16	pCi/g	0.30	Rn not ingrown		2.16
SC-01703-S	02/20/96	Ra-226		1.02	2.32	pCi/g	0.22	Rn not ingrown		2.32
SC-01707-S	02/20/96	Ra-226		0.88	1.95	pCi/g	0.35	Rn not ingrown		1.95
SC-01711-S	02/20/96	Ra-226		0.84	2.13	pCi/g	0.29	Rn not ingrown		2.13
SC-01715-S	02/20/96	Ra-226		0.92	2.09	pCi/g	0.25	Rn not ingrown		2.09
				MAXIMUM Ra-226	2.32					
				AVERAGE Ra-226	2.13					
FINAL Ra-226 AVE. 2.13										
SC-01701-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01702-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01703-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01704-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01704-C	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01705-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01706-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01707-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01708-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01709-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01710-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01711-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01712-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01712-C	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01713-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01713-C	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01714-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01715-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01716-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01717-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01718-S	02/20/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01719-C	02/28/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01720-S	02/28/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01801-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01805-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01809-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		
SC-01813-S	02/19/96	TNT	NO	N/A	N/A	mg/kg	0.5	None		

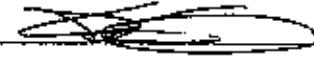
SOIL CONFIRMATION REMEDIATION DISPOSITION FORM

SECTION I

1. Work Package Number: WR-253 2. Date: 3/4/96 3. Review Form #: 96-012
 4. Remediation Unit Number: R1004 5. Confirmation Unit Number: 41018 (map attached)
 6. Contaminants of Concern: U-238 Th-230 Th-232 Ra-226 Ra-228
 TNT PCB PAH As Cr Pb TI
(Subsiding)

7. Results average below ALARA goal(s)? Yes No
 8. All results below cleanup criteria? Yes No
 9. Any results greater than 3X criteria? Yes No
 10. Hotspots present (less than 3X criteria)? Yes No

Parameter	Size	Concentration	Complies with Plan?
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

11. Reviewer: CRMG KISH  Date: 3/4/96

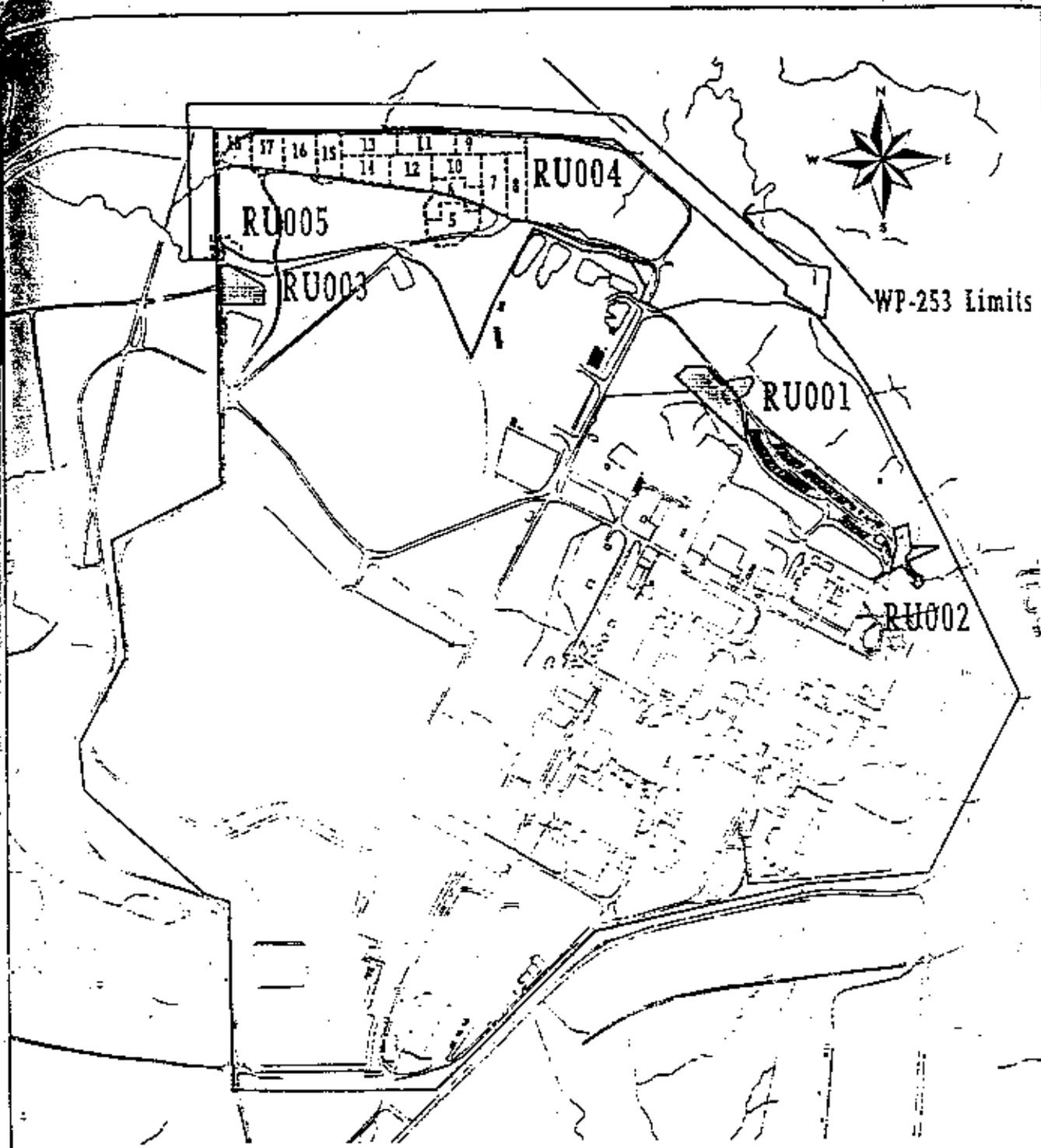
12. Reviewer Disposition Recommendation: Release for Unrestricted Use (Section II)
 Additional Excavation Required (Section IV)
 ALARA Committee Required (Section III)

SECTION II

Results are ALARA. CU is released for unrestricted use.

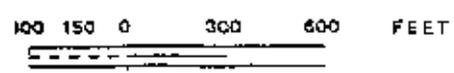
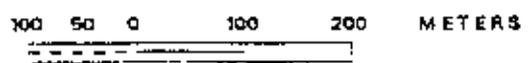
14. ES&H Manager: D. Meyer Date: 3/5/96
 15. DOE Project Manager/Engineer: Thomas C. Faubey Date: 3/5/96
 16. Project Manager: Joseph [unclear] Date: 3/6/96
 17. Construction Engineer: Walt Engstrom Date: 3/6/96

SEE ATTACHED RESULTS AND MAP



LEGEND

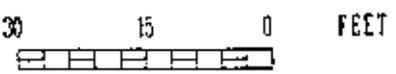
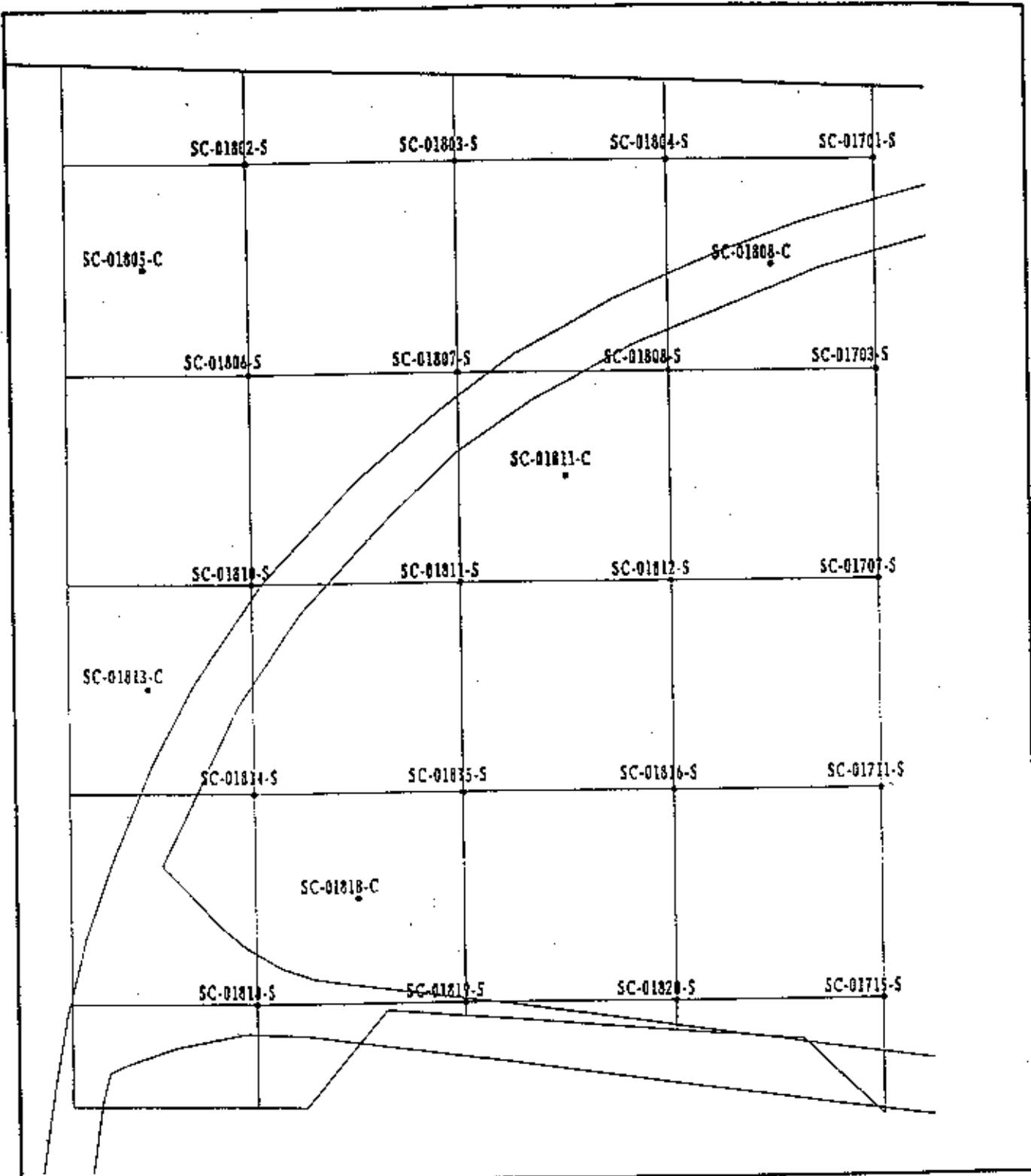
-  Confirmed RUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Contamination Units



Location of Remedial Units

Figure 1-1

EXHIBIT NO:	REPORT NO.: DOE/OR/21548-365
ORIGINATOR: MGL	DATE: 9/95
DRAWN BY: WSSRAP GIS	



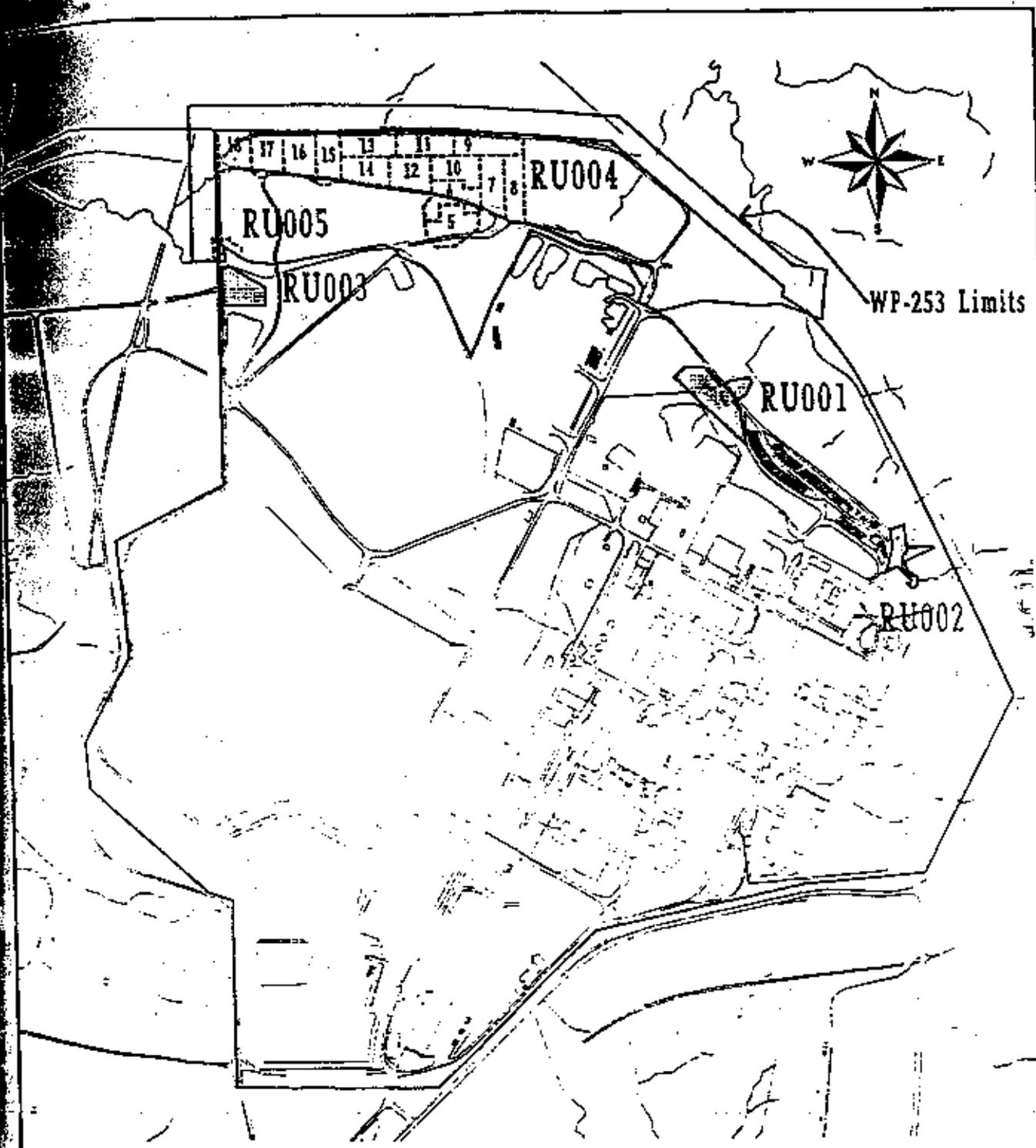
**Sample Locations in Remedial Unit RU004
Confirmation Unit CU018**

Figure 2-14

EXHIBIT NO.: A/DCI036/0895	REPORT NO.: DOE/OR/31548-565
ORIGINATOR: MGL	DATE: 8/95
DRAWN BY: WSSRAP GIS	

Soil Confirmation Results for CU018

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	
SC-01802-S	02/22/98	U-238	NO	N/A	N/A	pCi/g	4.15	Preliminary	2.08
SC-01803-S	02/22/98	U-238	NO	N/A	N/A	pCi/g	3.77	Preliminary	1.89
SC-01804-S	02/22/98	U-238	4.42	N/A	N/A	pCi/g	2.41	Preliminary	4.42
SC-01805-C	02/22/98	U-238	NO	N/A	N/A	pCi/g	2.70	Preliminary	1.35
SC-01806-S	02/22/98	U-238	NO	N/A	N/A	pCi/g	3.80	Preliminary	1.80
SC-01807-S	02/22/98	U-238	NO	N/A	N/A	pCi/g	2.82	Preliminary	1.41
SC-01808-S	02/22/98	U-238	NO	N/A	N/A	pCi/g	4.45	Preliminary	2.23
SC-01809-C	02/23/98	U-238	NO	N/A	N/A	pCi/g	4.58	Preliminary	2.29
SC-01810-S	02/23/98	U-238	NO	N/A	N/A	pCi/g	2.82	Preliminary	1.41
SC-01811-S	02/23/98	U-238	NO	N/A	N/A	pCi/g	2.73	Preliminary	1.37
SC-01812-C	02/23/98	U-238	4.77	N/A	N/A	pCi/g	2.28	Preliminary	4.77
SC-01813-C	02/23/98	U-238	NO	N/A	N/A	pCi/g	2.97	Preliminary	1.48
SC-01814-S	02/23/98	U-238	NO	N/A	N/A	pCi/g	3.82	Preliminary	1.81
SC-01815-S	02/23/98	U-238	NO	N/A	N/A	pCi/g	4.32	Preliminary	2.16
SC-01816-S	02/23/98	U-238	8.87	N/A	N/A	pCi/g	3.09	Preliminary	1.55
SC-01818-S	02/23/98	U-238	NO	N/A	N/A	pCi/g	4.18	Preliminary	3.67
SC-01818-C	02/23/98	U-238	2.72	N/A	N/A	pCi/g	2.73	Preliminary	1.37
SC-01819-S	02/23/98	U-238	NO	N/A	N/A	pCi/g	1.65	Preliminary	2.72
SC-01820-S	02/23/98	U-238	4.12	N/A	N/A	pCi/g	2.27	Preliminary	1.49
							3.59	Preliminary	4.12
			MAXIMUM U-238	8.87					
			AVERAGE U-238	1.24					
SC-01701-S	02/22/98	U-238	8.08	N/A	N/A	pCi/g	2.39	Preliminary	8.08
SC-01703-S	02/22/98	U-238	NO	N/A	N/A	pCi/g	4.29	Preliminary	2.15
SC-01707-S	02/22/98	U-238	10.70	N/A	N/A	pCi/g	4.83	Preliminary	10.70
SC-01711-S	02/22/98	U-238	9.03	N/A	N/A	pCi/g	2.71	Preliminary	9.03
SC-01715-S	02/22/98	U-238	3.09	N/A	N/A	pCi/g	1.92	Preliminary	3.09
FINAL U-238 AVE. 3.52									
SC-01802-S	02/22/98	Ra-226	0.66	1.50		pCi/g	0.35	Rn not ingrown	1.50
SC-01803-S	02/22/98	Ra-226	0.65	1.83		pCi/g	0.36	Rn not ingrown	1.83
SC-01804-S	02/22/98	Ra-226	0.67	1.97		pCi/g	0.29	Rn not ingrown	1.97
SC-01805-C	02/22/98	Ra-226	0.78	1.77		pCi/g	0.26	Rn not ingrown	1.77
SC-01806-S	02/22/98	Ra-226	0.78	1.77		pCi/g	0.37	Rn not ingrown	1.77
SC-01807-S	02/22/98	Ra-226	0.80	1.82		pCi/g	0.20	Rn not ingrown	1.82
SC-01808-S	02/23/98	Ra-226	0.75	1.70		pCi/g	0.30	Rn not ingrown	1.70
SC-01808-C	02/23/98	Ra-226	0.96	2.18		pCi/g	0.28	Rn not ingrown	2.18
SC-01810-S	02/23/98	Ra-226	0.89	2.02		pCi/g	0.28	Rn not ingrown	2.02
SC-01811-S	02/23/98	Ra-226	0.82	1.86		pCi/g	0.27	Rn not ingrown	1.86
SC-01811-C	02/23/98	Ra-226	1.06	2.41		pCi/g	0.28	Rn not ingrown	2.41
SC-01812-S	02/23/98	Ra-226	0.83	1.88		pCi/g	0.24	Rn not ingrown	1.88
SC-01813-C	02/23/98	Ra-226	0.68	2.00		pCi/g	0.29	Rn not ingrown	2.00
SC-01814-S	02/23/98	Ra-226	0.97	2.20		pCi/g	0.30	Rn not ingrown	2.20
SC-01815-S	02/23/98	Ra-226	0.81	1.84		pCi/g	0.28	Rn not ingrown	1.84
SC-01816-S	02/23/98	Ra-226	0.88	2.00		pCi/g	0.38	Rn not ingrown	2.00
SC-01818-S	02/23/98	Ra-226	0.85	1.93		pCi/g	0.29	Rn not ingrown	1.93
SC-01818-C	02/23/98	Ra-226	0.83	1.88		pCi/g	0.28	Rn not ingrown	1.88
SC-01819-S	02/23/98	Ra-226	0.94	2.13		pCi/g	0.27	Rn not ingrown	2.13
SC-01820-S	02/23/98	Ra-226	0.84	2.13		pCi/g	0.35	Rn not ingrown	2.13
			MAXIMUM Ra-226	2.41					
			AVERAGE Ra-226	1.95					
SC-01701-S	02/22/98	Ra-226	0.95	2.18		pCi/g	0.30	Rn not ingrown	2.18
SC-01703-S	02/22/98	Ra-226	1.02	2.32		pCi/g	0.22	Rn not ingrown	2.32
SC-01707-S	02/22/98	Ra-226	0.86	1.95		pCi/g	0.35	Rn not ingrown	1.95
SC-01711-S	02/22/98	Ra-226	0.94	2.13		pCi/g	0.29	Rn not ingrown	2.13
SC-01715-S	02/22/98	Ra-226	0.92	2.09		pCi/g	0.25	Rn not ingrown	2.09
FINAL Ra-226 AVE. 1.98									
SC-01806-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01811-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01811-S-R	02/22/98	TNT	NO	N/A	N/A	mg/kg	0.2	SAMPLE SENT OFFSITE	
SC-01813-C	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01812-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01814-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01815-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01816-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01818-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01818-C	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01819-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01820-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01701-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01703-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01707-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01711-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	
SC-01715-S	02/20/98	TNT	NO	N/A	N/A	mg/kg	0.5	None	



LEGEND

-  Confirmed RUs under previous Work Packages
-  WP 253 Boundary
-  WP 253 Contamination Limits

100 50 0 100 200 METERS



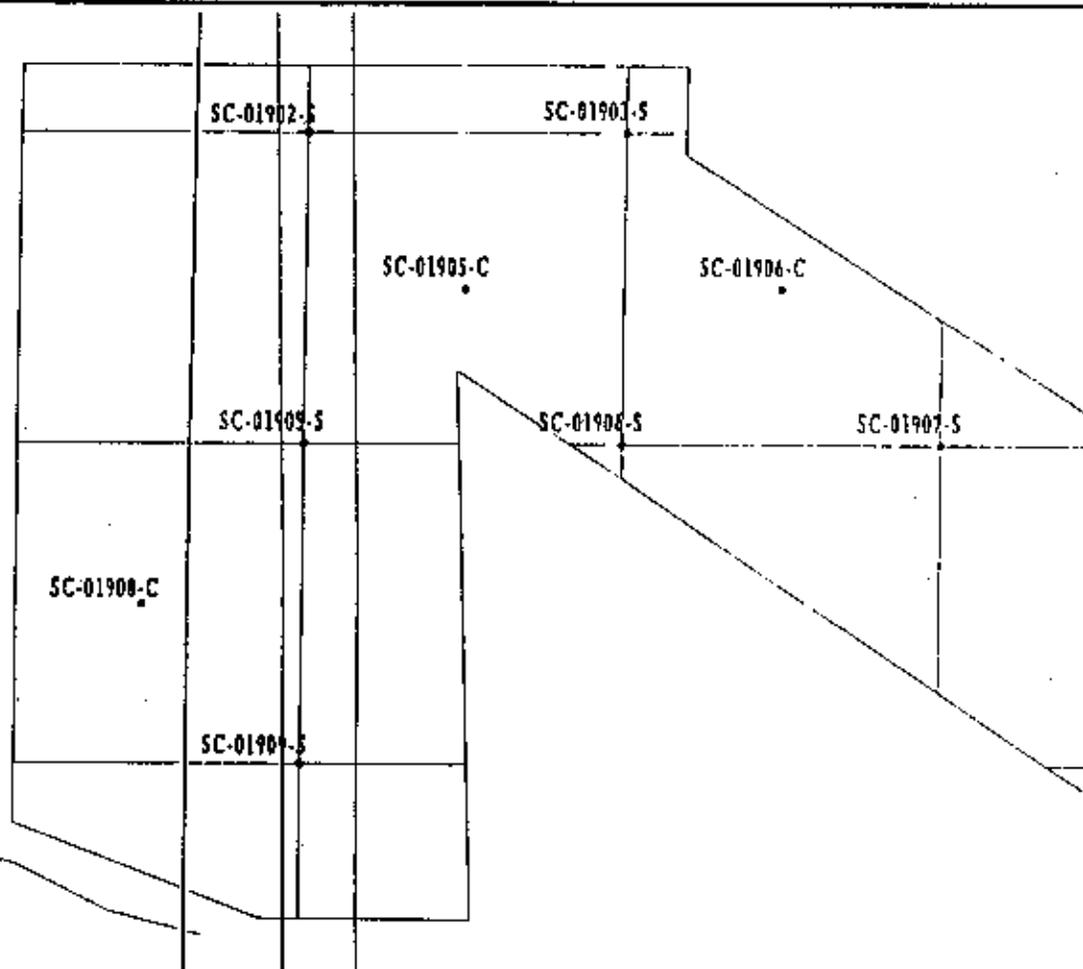
300 150 0 300 600 FEET



Location of Remedial Units

Figure 1-1

PROJECT NO.:		REPORT NO. DOE/OR/21548-565	
ORIGINATOR:	MGL	DRAWN BY:	WSSRAP GIS
		DATE:	9/95



10 5 0 10 METERS



30 15 0 10 FEET

Sample Locations in Remedial Unit RU005
Confirmation Unit CU019

Figure 2-15

EXHIBIT NO.: AIDC/037/0895	REPORT NO.: DOE/OR/21548-565
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS DATE: 8/95

Soil Confirmation Results for CU019

WSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS
SC-01902-S	02/26/06	U-238	ND	N/A	N/A	pCi/g	2.77	
SC-01903-S	02/26/06	U-238	ND	N/A	N/A	pCi/g	4.00	
SC-01905-S	02/26/06	U-238	ND	N/A	N/A	pCi/g	3.62	
SC-01905-C	02/26/06	U-238	ND	N/A	N/A	pCi/g	2.70	
SC-01906-B	02/26/06	U-238	ND	N/A	N/A	pCi/g	3.97	
SC-01906-C	02/26/06	U-238	ND	N/A	N/A	pCi/g	2.53	
SC-01907-S	02/26/06	U-238	ND	N/A	N/A	pCi/g	2.78	
SC-01908-C	TO BEDROCK	U-238	ND	N/A	N/A	pCi/g		
SC-01909-B	02/26/06	U-238	ND	N/A	N/A	pCi/g	2.92	

MAX U-238 LESS THAN	4.00
AVE U-238 LESS THAN	3.20

APPENDIX C
Analytical Data

WP253 CONFIRMATION RESULTS

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS	VER_DJ	VAL_QUAL
SC-00501-S	12/06/95	RADIUM-226	1.62	0.38	PCI/G	*	*
SC-00502-C	12/06/95	LEAD	27.2	0.20	UG/G	J	J
SC-00502-C	12/06/95	PERCENT SOLID	79.6	1.00	PRCNT	*	*
SC-00502-C	12/06/95	RADIUM-226	1.48	0.22	PCI/G	*	*
SC-00502-S	12/06/95	LEAD	25.0	0.19	UG/G	J	J
SC-00502-S	12/06/95	PERCENT SOLID	82.7	1.00	PRCNT	*	*
SC-00502-S	12/06/95	RADIUM-226	1.58	0.31	PCI/G	*	*
SC-00503-S	12/06/95	LEAD	29.2	0.19	UG/G	J	J
SC-00503-S	12/06/95	PERCENT SOLID	83.9	1.00	PRCNT	*	*
SC-00503-S	12/06/95	RADIUM-226	1.74	0.26	PCI/G	*	*
SC-00504-S	12/06/95	RADIUM-226	1.75	0.33	PCI/G	*	*
SC-00505-C	12/06/95	LEAD	31.7	0.18	UG/G	J	J
SC-00505-C	12/06/95	PERCENT SOLID	91.4	1.00	PRCNT	*	*
SC-00505-C	12/06/95	RADIUM-226	1.63	0.42	PCI/G	*	*
SC-00505-S	12/06/95	LEAD	24.5	0.20	UG/G	J	J
SC-00505-S	12/06/95	PERCENT SOLID	80.9	1.00	PRCNT	*	*
SC-00505-S	12/06/95	RADIUM-226	1.53	0.27	PCI/G	*	*
SC-00506-S	12/06/95	LEAD	29.7	0.18	UG/G	J	J
SC-00506-S	12/06/95	PERCENT SOLID	87.0	1.00	PRCNT	*	*
SC-00506-S	12/06/95	RADIUM-226	1.44	0.36	PCI/G	*	*
SC-00507-S	12/06/95	RADIUM-226	1.38	0.28	PCI/G	*	*
SC-00508-S	12/06/95	RADIUM-226	1.62	0.23	PCI/G	*	*
SC-00510-S	12/06/95	RADIUM-226	1.42	0.28	PCI/G	*	*
SC-00511-S	12/06/95	RADIUM-226	1.45	0.30	PCI/G	*	*
SC-00512-C	12/06/95	LEAD	26.1	0.19	UG/G	J	J
SC-00512-C	12/06/95	PERCENT SOLID	83.2	1.00	PRCNT	*	*
SC-00512-C	12/06/95	RADIUM-226	1.63	0.30	PCI/G	*	*
SC-00512-S	12/06/95	RADIUM-226	1.60	0.42	PCI/G	*	*
SC-00513-S	12/06/95	RADIUM-226	1.58	0.31	PCI/G	*	*
SC-00514-S	12/06/95	RADIUM-226	1.56	0.34	PCI/G	*	*
SC-00515-C	12/06/95	RADIUM-226	1.56	0.27	PCI/G	*	*
SC-00515-S	12/06/95	RADIUM-226	1.41	0.29	PCI/G	*	*
SC-00525-S	12/06/95	RADIUM-226	1.55	0.33	PCI/G	*	*
SC-00526-S	12/06/95	RADIUM-226	1.57	0.31	PCI/G	*	*
SC-00601-S	12/07/95	RADIUM-226	1.42	0.34	PCI/G	*	*
SC-00601-S	12/07/95	URANIUM-238	ND	4.21	PCI/G	*	*
SC-00602-S	12/07/95	RADIUM-226	1.87	0.33	PCI/G	*	*
SC-00603-S	12/07/95	RADIUM-226	1.62	0.29	PCI/G	*	*
SC-00604-S	12/07/95	RADIUM-226	1.51	0.31	PCI/G	*	*
SC-00606-S	02/28/96	RADIUM-226	1.46	0.28	PCI/G	*	*
SC-00606-S	02/28/96	RADIUM-228	1.31	0.50	PCI/G	*	*
SC-00607-S	02/28/96	RADIUM-226	1.45	0.42	PCI/G	*	*

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS	VER_QU	VAL_QUAL
SC-00607-S	02/28/96	RADIUM-228	1.28	0.43	PCI/G		*
SC-00608-S	02/28/96	RADIUM-226	1.44	0.27	PCI/G		*
SC-00608-S	02/28/96	RADIUM-228	1.05	0.47	PCI/G		*
SC-00609-S	12/07/95	RADIUM-226	1.42	0.32	PCI/G		*
SC-00610-S	12/07/95	RADIUM-226	1.38	0.31	PCI/G		*
SC-00612-S	12/06/95	RADIUM-226	1.44	0.29	PCI/G		*
SC-00613-S	12/06/95	RADIUM-226	2.36	0.40	PCI/G		*
SC-00614-S	12/06/95	RADIUM-226	1.65	0.36	PCI/G		*
SC-00615-S	12/06/95	RADIUM-226	1.58	0.39	PCI/G		*
SC-00616-S	12/06/95	RADIUM-226	1.20	0.31	PCI/G		*
SC-00617-S	02/28/96	RADIUM-226	1.30	0.32	PCI/G		*
SC-00617-S	02/28/96	RADIUM-228	1.03	0.38	PCI/G		*
SC-00619-S	12/07/95	RADIUM-226	1.53	0.31	PCI/G		*
SC-00620-S	12/06/95	RADIUM-226	1.25	0.27	PCI/G		*
SC-00621-S	12/06/95	RADIUM-226	1.38	0.40	PCI/G		*
SC-00623-S	12/07/95	RADIUM-226	1.57	0.36	PCI/G		*
SC-00701-S	12/05/95	RADIUM-226	1.61	0.37	PCI/G		*
SC-00702-S	12/05/95	RADIUM-226	1.25	0.37	PCI/G		*
SC-00703-S	12/05/95	RADIUM-226	1.27	0.28	PCI/G		*
SC-00704-S	12/05/95	RADIUM-226	1.26	0.34	PCI/G		*
SC-00705-S	12/05/95	RADIUM-226	1.33	0.26	PCI/G		*
SC-00706-S	12/05/95	RADIUM-226	1.42	0.30	PCI/G		*
SC-00707-S	12/05/95	RADIUM-226	1.85	0.34	PCI/G		*
SC-00708-S	12/05/95	RADIUM-226	1.29	0.22	PCI/G		*
SC-00709-S	12/05/95	RADIUM-226	1.29	0.32	PCI/G		*
SC-00710-S	12/06/95	RADIUM-226	1.21	0.32	PCI/G		*
SC-00711-S	12/05/95	RADIUM-226	1.43	0.33	PCI/G		*
SC-00712-S	12/05/95	RADIUM-226	1.32	0.34	PCI/G		*
SC-00713-S	12/06/95	RADIUM-226	1.42	0.36	PCI/G		*
SC-00714-S	12/05/95	RADIUM-226	1.43	0.34	PCI/G		*
SC-00715-S	12/05/95	RADIUM-226	1.52	0.32	PCI/G		*
SC-00716-S	12/06/95	RADIUM-226	2.25	0.29	PCI/G		*
SC-00717-S	12/05/95	RADIUM-226	1.44	0.29	PCI/G		*
SC-00718-S	12/05/95	RADIUM-226	1.67	0.31	PCI/G		*
SC-00721-S	12/05/95	RADIUM-226	1.53	0.36	PCI/G		*
SC-00801-S	12/01/95	RADIUM-226	1.30	0.31	PCI/G		*
SC-00802-S	12/01/95	RADIUM-226	1.34	0.28	PCI/G		*
SC-00802-S	12/01/95	RADIUM-226	1.30	0.33	PCI/G		*
SC-00803-S	12/01/95	RADIUM-226	1.38	0.37	PCI/G		*
SC-00804-S	12/01/95	RADIUM-226	1.31	0.24	PCI/G		*
SC-00805-S	12/01/95	RADIUM-226	1.35	0.35	PCI/G		*
SC-00806-S	12/01/95	RADIUM-226	1.24	0.32	PCI/G		*
SC-00807-S	12/01/95	RADIUM-226	1.23	0.19	PCI/G		*

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS	VER_QU	VAL_QUAL
SC-00808-S	12/01/95	RADIUM-226	1.31	0.37	PCI/G		*
SC-00809-S	12/01/95	RADIUM-226	1.49	0.33	PCI/G		*
SC-00810-S	12/01/95	RADIUM-226	1.30	0.33	PCI/G		*
SC-00811-S	12/01/95	RADIUM-226	1.52	0.27	PCI/G		*
SC-00812-S	12/01/95	RADIUM-226	1.50	0.38	PCI/G		*
SC-00813-S	12/01/95	RADIUM-226	1.43	0.35	PCI/G		*
SC-00814-S	12/01/95	RADIUM-226	1.26	0.38	PCI/G		*
SC-00815-S	12/01/95	RADIUM-226	1.41	0.33	PCI/G		*
SC-00816-S	12/01/95	RADIUM-226	1.24	0.33	PCI/G		*
SC-00817-S	12/01/95	RADIUM-226	1.39	0.27	PCI/G		*
SC-00818-S	12/01/95	RADIUM-226	1.49	0.37	PCI/G		*
SC-00819-C	12/01/95	RADIUM-226	1.35	0.31	PCI/G		*
SC-00819-S	12/01/95	RADIUM-226	1.50	0.35	PCI/G		*
SC-00820-S	12/01/95	RADIUM-226	1.68	0.27	PCI/G		*
SC-00821-S	12/01/95	RADIUM-226	1.55	0.36	PCI/G		*
SC-00823-S	12/01/95	RADIUM-226	1.51	0.24	PCI/G		*
SC-00824-S	12/01/95	RADIUM-226	1.35	0.31	PCI/G		*
SC-00901-S	12/05/95	RADIUM-226	1.09	0.37	PCI/G		JE
SC-00901-S	12/05/95	URANIUM-238	ND	3.03	PCI/G		U JE
SC-00902-S	12/05/95	RADIUM-226	1.19	0.18	PCI/G		JE
SC-00903-S	12/05/95	RADIUM-226	1.37	0.34	PCI/G		JE
SC-00904-S	12/05/95	RADIUM-226	1.19	0.32	PCI/G		JE
SC-00905-S	12/05/95	RADIUM-226	1.11	0.33	PCI/G		JE
SC-00906-S	12/05/95	RADIUM-226	0.84	0.31	PCI/G		JE
SC-00907-S	12/05/95	RADIUM-226	4.36	0.42	PCI/G		JE
SC-00908-S	12/05/95	RADIUM-226	1.15	0.31	PCI/G		JE
SC-00908-S	12/05/95	URANIUM-238	ND	4.42	PCI/G		U JE
SC-00909-S	12/05/95	RADIUM-226	1.34	0.26	PCI/G		JE
SC-00910-S	12/05/95	RADIUM-226	1.32	0.22	PCI/G		JE
SC-00911-S	12/05/95	RADIUM-226	1.07	0.29	PCI/G		JE
SC-00912-S	12/05/95	RADIUM-226	1.28	0.21	PCI/G		JE
SC-00913-C	12/05/95	RADIUM-226	1.27	0.24	PCI/G		JE
SC-00913-S	12/05/95	RADIUM-226	0.97	0.27	PCI/G		JE
SC-00914-S	12/05/95	RADIUM-226	1.55	0.31	PCI/G		JE
SC-00915-C	12/05/95	RADIUM-226	0.97	0.31	PCI/G		JE
SC-00915-S	12/05/95	RADIUM-226	1.43	0.29	PCI/G		JE
SC-00916-S	12/05/95	RADIUM-226	1.31	0.31	PCI/G		JE
SC-00917-S	12/05/95	RADIUM-226	1.39	0.26	PCI/G		JE
SC-00917-S	12/05/95	URANIUM-238	(2.04)	2.45	PCI/G		U JE
SC-00918-S	12/05/95	RADIUM-226	1.42	0.26	PCI/G		JE
SC-00919-S	12/05/95	RADIUM-226	1.35	0.24	PCI/G		JE
SC-00920-S	12/05/95	RADIUM-226	1.21	0.33	PCI/G		JE
SC-00921-C	12/05/95	RADIUM-226	1.10	0.30	PCI/G		JE
SC-00921-S	12/05/95	RADIUM-226	1.14	0.31	PCI/G		JE
SC-00922-S	12/05/95	RADIUM-226	1.24	0.29	PCI/G		JE

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SC-00923-S	12/05/95	RADIUM-226	1.28	0.34	PCI/G		JE
SC-00924-S	12/05/95	RADIUM-226	1.03	0.27	PCI/G		JE
SC-00925-S	12/05/95	RADIUM-226	1.25	0.31	PCI/G		JE
SC-01001-S	12/07/95	RADIUM-226	1.52	0.44	PCI/G		*
SC-01001-S	12/07/95	URANIUM-238	ND	4.03	PCI/G		*
SC-01002-S	12/07/95	RADIUM-226	1.47	0.29	PCI/G		*
SC-01003-S	12/07/95	RADIUM-226	1.34	0.40	PCI/G		*
SC-01004-S	12/07/95	RADIUM-226	1.34	0.24	PCI/G		*
SC-01005-S	12/07/95	RADIUM-226	2.72	0.31	PCI/G		*
SC-01006-S	12/07/95	RADIUM-226	1.22	0.25	PCI/G		*
SC-01007-S	12/07/95	RADIUM-226	1.27	0.34	PCI/G		*
SC-01007-S	12/07/95	URANIUM-238	ND	4.12	PCI/G		*
SC-01008-S	12/07/95	RADIUM-226	1.50	0.28	PCI/G		*
SC-01009-S	12/07/95	RADIUM-226	1.53	0.29	PCI/G		*
SC-01010-S	12/07/95	RADIUM-226	1.34	0.33	PCI/G		*
SC-01011-S	12/07/95	RADIUM-226	1.26	0.35	PCI/G		*
SC-01012-S	12/07/95	RADIUM-226	1.57	0.31	PCI/G		*
SC-01013-S	12/07/95	RADIUM-226	1.49	0.28	PCI/G		*
SC-01013-S	12/07/95	URANIUM-238	ND	4.14	PCI/G		*
SC-01014-S	12/07/95	RADIUM-226	1.61	0.37	PCI/G		*
SC-01015-S	12/07/95	RADIUM-226	1.47	0.36	PCI/G		*
SC-01016-S	12/07/95	RADIUM-226	1.37	0.27	PCI/G		*
SC-01017-S	12/07/95	RADIUM-226	1.47	0.42	PCI/G		*
SC-01018-S	12/07/95	RADIUM-226	1.33	0.31	PCI/G		*
SC-01019-S	12/07/95	RADIUM-226	1.20	0.30	PCI/G		*
SC-01020-S	12/07/95	RADIUM-226	1.11	0.33	PCI/G		*
SC-01101-S	02/22/96	RADIUM-226	1.28	0.39	PCI/G		*
SC-01101-S	02/22/96	URANIUM-238	6.65	4.07	PCI/G		*
SC-01102-S	02/22/96	RADIUM-226	1.37	0.23	PCI/G		*
SC-01102-S	02/22/96	URANIUM-238	ND	3.35	PCI/G		*
SC-01103-S	02/22/96	RADIUM-226	1.31	0.32	PCI/G		*
SC-01103-S	02/22/96	URANIUM-238	ND	4.01	PCI/G		*
SC-01104-S	02/14/96	RADIUM-226	1.39	0.30	PCI/G		*
SC-01104-S	02/14/96	URANIUM-238	(2.37)	2.92	PCI/G		*
SC-01105-S	02/14/96	RADIUM-226	1.53	0.42	PCI/G		*
SC-01105-S	02/14/96	URANIUM-238	9.51	3.50	PCI/G		*
SC-01106-S	02/14/96	RADIUM-226	1.33	0.26	PCI/G		*
SC-01106-S	02/14/96	URANIUM-238	(1.72)	2.62	PCI/G		*
SC-01107-S	02/14/96	RADIUM-226	1.23	0.29	PCI/G		*
SC-01107-S	02/14/96	URANIUM-238	ND	3.63	PCI/G		*
SC-01108-S	02/14/96	RADIUM-226	1.27	0.27	PCI/G		*
SC-01108-S	02/14/96	URANIUM-238	1.88	1.77	PCI/G		*
SC-01109-S	02/14/96	RADIUM-226	1.19	0.30	PCI/G		*
SC-01109-S	02/14/96	URANIUM-238	ND	4.06	PCI/G		*
SC-01110-S	02/14/96	RADIUM-226	1.31	0.27	PCI/G		*
SC-01110-S	02/14/96	URANIUM-238	(2.05)	2.21	PCI/G		*

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SC-01111-S	02/14/96	RADIUM-226	1.28	0.36	PCI/G		*
SC-01111-S	02/14/96	URANIUM-238	3.31	2.68	PCI/G		*
SC-01112-S	02/14/96	RADIUM-226	1.38	0.26	PCI/G		*
SC-01112-S	02/14/96	URANIUM-238	10.9	4.83	PCI/G		*
SC-01113-S	02/14/96	RADIUM-226	1.44	0.33	PCI/G		*
SC-01113-S	02/14/96	URANIUM-238	5.78	2.85	PCI/G		*
SC-01114-S	02/14/96	RADIUM-226	1.63	0.44	PCI/G		*
SC-01114-S	02/14/96	URANIUM-238	ND	4.30	PCI/G		*
SC-01115-S	02/14/96	RADIUM-226	1.42	0.29	PCI/G		*
SC-01115-S	02/14/96	URANIUM-238	ND	2.98	PCI/G		*
SC-01116-S	02/14/96	RADIUM-226	1.43	0.35	PCI/G		*
SC-01116-S	02/14/96	URANIUM-238	ND	3.77	PCI/G		*
SC-01117-S	02/14/96	RADIUM-226	1.39	0.38	PCI/G		*
SC-01117-S	02/14/96	URANIUM-238	ND	3.29	PCI/G		*
SC-01118-C	02/14/96	RADIUM-226	1.24	0.31	PCI/G		*
SC-01118-C	02/14/96	URANIUM-238	ND	4.37	PCI/G		*
SC-01118-S	02/14/96	RADIUM-226	1.53	0.39	PCI/G		*
SC-01118-S	02/14/96	URANIUM-238	54.2	6.69	PCI/G		*
SC-01119-S	02/14/96	RADIUM-226	1.59	0.32	PCI/G		*
SC-01119-S	02/14/96	URANIUM-238	7.40	3.04	PCI/G		*
SC-01120-S	02/14/96	RADIUM-226	1.21	0.33	PCI/G		*
SC-01120-S	02/14/96	URANIUM-238	ND	4.15	PCI/G		*
SC-01121-S	02/27/96	RADIUM-226	1.50	0.28	PCI/G		*
SC-01121-S	02/27/96	URANIUM-238	ND	3.22	PCI/G		*
SC-01122-S	12/13/95	RADIUM-226	1.59	0.33	PCI/G		*
SC-01122-S	12/13/95	URANIUM-238	ND	4.47	PCI/G		*
SC-01122-S-RA	12/18/95	1,3,5-TRINITROBENZEN	ND	0.200	UG/G		U
SC-01122-S-RA	12/18/95	1,3-DINITROBENZENE	ND	0.200	UG/G		U
SC-01122-S-RA	12/18/95	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G		U
SC-01122-S-RA	12/18/95	2,4-DINITROTOLUENE	ND	0.330	UG/G		U
SC-01122-S-RA	12/18/95	2,6-DINITROTOLUENE	ND	0.330	UG/G		U
SC-01122-S-RA	12/18/95	NITROBENZENE	ND	0.200	UG/G		U
SC-01123-S	12/13/95	RADIUM-226	1.39	0.29	PCI/G		*
SC-01123-S	12/13/95	URANIUM-238	ND	3.00	PCI/G		*
SC-01124-S	12/13/95	RADIUM-226	1.29	0.37	PCI/G		*
SC-01124-S	12/13/95	URANIUM-238	ND	4.12	PCI/G		*
SC-01201-S	02/14/96	RADIUM-226	1.32	0.43	PCI/G		*
SC-01201-S	02/14/96	URANIUM-238	6.83	2.77	PCI/G		*
SC-01202-S	02/14/96	RADIUM-226	1.53	0.26	PCI/G		*
SC-01202-S	02/14/96	URANIUM-238	ND	3.26	PCI/G		*
SC-01203-S	02/14/96	RADIUM-226	1.36	0.40	PCI/G		*
SC-01203-S	02/14/96	URANIUM-238	ND	4.27	PCI/G		*
SC-01204-S	02/14/96	RADIUM-226	1.56	0.33	PCI/G		*
SC-01204-S	02/14/96	URANIUM-238	(2.27)	2.36	PCI/G		*
SC-01205-S	02/14/96	RADIUM-226	1.22	0.26	PCI/G		*
SC-01205-S	02/14/96	URANIUM-238	ND	3.78	PCI/G		*
SC-01206-C	02/14/96	RADIUM-226	1.23	0.30	PCI/G		*

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SC-01206-C	02/14/96	URANIUM-238	2.95	2.69	PCI/G		*
SC-01206-S	02/14/96	RADIUM-226	1.44	0.27	PCI/G		*
SC-01206-S	02/14/96	URANIUM-238	23.2	5.42	PCI/G		*
SC-01207-S	02/14/96	RADIUM-226	1.46	0.31	PCI/G		*
SC-01207-S	02/14/96	URANIUM-238	ND	3.11	PCI/G		*
SC-01208-S	02/14/96	RADIUM-226	1.38	0.36	PCI/G		*
SC-01208-S	02/14/96	URANIUM-238	ND	4.63	PCI/G		*
SC-01209-S	02/14/96	RADIUM-226	1.18	0.31	PCI/G		*
SC-01209-S	02/14/96	URANIUM-238	ND	2.99	PCI/G		*
SC-01210-S	02/14/96	RADIUM-226	1.42	0.42	PCI/G		*
SC-01210-S	02/14/96	URANIUM-238	ND	3.85	PCI/G		*
SC-01211-S	02/14/96	RADIUM-226	2.10	0.34	PCI/G		*
SC-01211-S	02/14/96	URANIUM-238	8.94	3.75	PCI/G		*
SC-01212-S	02/14/96	RADIUM-226	1.16	0.42	PCI/G		*
SC-01212-S	02/14/96	URANIUM-238	ND	4.14	PCI/G		*
SC-01213-S	02/14/96	RADIUM-226	1.23	0.31	PCI/G		*
SC-01213-S	02/14/96	URANIUM-238	ND	3.10	PCI/G		*
SC-01214-S	02/14/96	RADIUM-226	1.30	0.39	PCI/G		*
SC-01214-S	02/14/96	URANIUM-238	ND	4.06	PCI/G		*
SC-01215-S	02/14/96	RADIUM-226	1.33	0.35	PCI/G		*
SC-01215-S	02/14/96	URANIUM-238	ND	3.04	PCI/G		*
SC-01218-C	02/14/96	RADIUM-226	1.35	0.34	PCI/G		*
SC-01218-C	02/14/96	URANIUM-238	5.72	3.06	PCI/G		*
SC-01218-S	02/14/96	RADIUM-226	1.43	0.31	PCI/G		*
SC-01218-S	02/14/96	URANIUM-238	(1.96)	3.45	PCI/G		*
SC-01219-S	02/14/96	RADIUM-226	1.42	0.32	PCI/G		*
SC-01219-S	02/14/96	URANIUM-238	(2.40)	2.60	PCI/G		*
SC-01220-S	02/14/96	RADIUM-226	2.89	0.37	PCI/G		*
SC-01220-S	02/14/96	URANIUM-238	(3.28)	3.31	PCI/G		*
SC-01302-S	02/22/96	URANIUM-238	4.76	4.03	PCI/G		*
SC-01303-S	02/15/96	RADIUM-226	1.64	0.45	PCI/G		*
SC-01303-S	02/15/96	RADIUM-228	1.37	0.56	PCI/G		*
SC-01303-S	02/15/96	URANIUM-238	39.1	6.24	PCI/G		*
SC-01304-S	02/15/96	URANIUM-238	11.0	4.71	PCI/G		*
SC-01305-S	02/15/96	URANIUM-238	9.66	4.66	PCI/G		*
SC-01306-S	02/15/96	URANIUM-238	3.34	2.10	PCI/G		*
SC-01307-S	02/15/96	URANIUM-238	4.74	3.92	PCI/G		*
SC-01308-S	02/15/96	URANIUM-238	6.86	2.96	PCI/G		*
SC-01309-S	02/15/96	URANIUM-238	ND	4.03	PCI/G		*
SC-01310-S	02/15/96	RADIUM-226	1.75	0.36	PCI/G		*
SC-01310-S	02/15/96	RADIUM-228	1.31	0.51	PCI/G		*
SC-01310-S	02/15/96	URANIUM-238	83.4	5.53	PCI/G		*
SC-01311-S	02/15/96	URANIUM-238	20.3	5.50	PCI/G		*
SC-01312-S	02/15/96	URANIUM-238	ND	2.82	PCI/G		*
SC-01313-S	02/15/96	URANIUM-238	5.74	3.01	PCI/G		*
SC-01314-S	02/15/96	URANIUM-238	29.7	6.52	PCI/G		*
SC-01315-S	02/15/96	URANIUM-238	6.78	4.00	PCI/G		*
SC-01316-C	02/15/96	URANIUM-238	2.19	2.07	PCI/G		*
SC-01316-S	02/15/96	URANIUM-238	ND	4.09	PCI/G		*

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SC-01317-S	02/15/96	RADIUM-226	1.55	0.33	PCI/G		*
SC-01317-S	02/15/96	RADIUM-228	1.10	0.61	PCI/G		*
SC-01317-S	02/15/96	URANIUM-238	64.6	7.19	PCI/G		*
SC-01318-S	02/15/96	URANIUM-238	6.58	3.73	PCI/G		*
SC-01319-S	02/15/96	URANIUM-238	9.49	2.11	PCI/G		*
SC-01320-S	02/15/96	URANIUM-238	6.27	2.54	PCI/G		*
SC-01321-S	02/15/96	URANIUM-238	8.01	2.47	PCI/G		*
SC-01322-S	02/15/96	URANIUM-238	7.25	2.59	PCI/G		*
SC-01323-C	02/15/96	URANIUM-238	ND	2.60	PCI/G		*
SC-01323-S	02/15/96	RADIUM-226	1.44	0.37	PCI/G		*
SC-01323-S	02/15/96	URANIUM-238	ND	3.28	PCI/G		*
SC-01401-C	02/15/96	RADIUM-226	1.58	0.37	PCI/G		*
SC-01401-C	02/15/96	URANIUM-238	25.4	5.05	PCI/G		*
SC-01401-S	02/15/96	RADIUM-226	1.79	0.44	PCI/G		*
SC-01401-S	02/15/96	RADIUM-228	1.27	0.62	PCI/G		*
SC-01401-S	02/15/96	URANIUM-238	95.2	5.71	PCI/G		*
SC-01402-C	02/15/96	RADIUM-226	1.59	0.43	PCI/G		*
SC-01402-C	02/15/96	URANIUM-238	32.4	6.03	PCI/G		*
SC-01402-C-RA	02/20/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G		*
SC-01402-C-RA	02/20/96	1,3-DINITROBENZENE	ND	0.200	UG/G		*
SC-01402-C-RA	02/20/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G		*
SC-01402-C-RA	02/20/96	2,4-DINITROTOLUENE	ND	0.330	UG/G		*
SC-01402-C-RA	02/20/96	2,6-DINITROTOLUENE	ND	0.330	UG/G		*
SC-01402-C-RA	02/20/96	NITROBENZENE	ND	0.200	UG/G		*
SC-01402-S	02/15/96	RADIUM-226	1.46	0.30	PCI/G		*
SC-01402-S	02/15/96	URANIUM-238	19.0	2.99	PCI/G		*
SC-01403-S	02/15/96	URANIUM-238	12.3	2.75	PCI/G		*
SC-01403-S-RA	02/20/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G		*
SC-01403-S-RA	02/20/96	1,3-DINITROBENZENE	ND	0.200	UG/G		*
SC-01403-S-RA	02/20/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G		*
SC-01403-S-RA	02/20/96	2,4-DINITROTOLUENE	ND	0.330	UG/G		*
SC-01403-S-RA	02/20/96	2,6-DINITROTOLUENE	ND	0.330	UG/G		*
SC-01403-S-RA	02/20/96	NITROBENZENE	ND	0.200	UG/G		*
SC-01404-C	02/15/96	PERCENT SOLID	82.2	1.00	PRCNT		*
SC-01404-C	02/15/96	THORIUM-230	0.911	0.0949	PCI/G		*
SC-01404-C	02/15/96	URANIUM-238	2.11	1.65	PCI/G		*
SC-01404-S	02/16/96	PERCENT SOLID	77.9	1.00	PRCNT		*
SC-01404-S	02/16/96	THORIUM-230	1.51	0.109	PCI/G		*
SC-01404-S	02/16/96	URANIUM-238	5.71	3.47	PCI/G		*
SC-01405-S	02/16/96	URANIUM-238	6.07	3.29	PCI/G		*
SC-01406-S	02/16/96	URANIUM-238	5.27	4.71	PCI/G		*
SC-01407-C	02/16/96	RADIUM-226	1.51	0.23	PCI/G		*
SC-01407-C	02/16/96	URANIUM-238	22.8	4.77	PCI/G		*
SC-01407-S	02/16/96	RADIUM-226	2.40	0.46	PCI/G		*
SC-01407-S	02/16/96	RADIUM-228	1.54	0.50	PCI/G		*
SC-01407-S	02/16/96	URANIUM-238	109	7.00	PCI/G		*
SC-01408-C	02/16/96	RADIUM-226	1.84	0.45	PCI/G		*
SC-01408-C	02/16/96	URANIUM-238	14.9	4.93	PCI/G		*
SC-01408-C-RA	02/22/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G		*
SC-01408-C-RA	02/22/96	1,3-DINITROBENZENE	ND	0.200	UG/G		*

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SC-01408-C-RA	02/22/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G	*	*
SC-01408-C-RA	02/22/96	2,4-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01408-C-RA	02/22/96	2,6-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01408-C-RA	02/22/96	NITROBENZENE	ND	0.200	UG/G	*	*
SC-01408-S	02/16/96	URANIUM-238	14.8	5.35	PCI/G	*	*
SC-01408-S-RA	02/20/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G	*	*
SC-01408-S-RA	02/20/96	1,3-DINITROBENZENE	ND	0.200	UG/G	*	*
SC-01408-S-RA	02/20/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G	*	*
SC-01408-S-RA	02/20/96	2,4-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01408-S-RA	02/20/96	2,6-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01408-S-RA	02/20/96	NITROBENZENE	ND	0.200	UG/G	*	*
SC-01409-C	02/16/96	PERCENT SOLID	83.4	1.00	PRCNT	*	*
SC-01409-C	02/16/96	THORIUM-230	1.78	0.0835	PCI/G	*	*
SC-01409-C	02/16/96	URANIUM-238	12.6	4.83	PCT/G	*	*
SC-01409-S	02/16/96	URANIUM-238	6.83	2.96	PCI/G	*	*
SC-01410-C	02/16/96	PERCENT SOLID	83.0	1.00	PRCNT	*	*
SC-01410-C	02/16/96	THORIUM-230	1.78	0.202	PCI/G	*	*
SC-01410-C	02/16/96	URANIUM-238	10.9	4.61	PCI/G	*	*
SC-01410-S	02/16/96	PERCENT SOLID	81.8	1.00	PRCNT	*	*
SC-01410-S	02/16/96	THORIUM-230	1.54	0.0402	PCI/G	*	*
SC-01410-S	02/16/96	URANIUM-238	8.42	4.61	PCI/G	*	*
SC-01411-S	02/16/96	URANIUM-238	ND	2.84	PCI/G	*	*
SC-01412-S	02/16/96	URANIUM-238	8.19	2.60	PCI/G	*	*
SC-01415-C	02/16/96	PERCENT SOLID	80.5	1.00	PRCNT	*	*
SC-01415-C	02/16/96	THORIUM-230	1.51	0.128	PCI/G	*	*
SC-01415-C	02/16/96	URANIUM-238	ND	2.67	PCI/G	*	*
SC-01415-S	02/16/96	URANIUM-238	(2.12)	2.36	PCT/G	*	*
SC-01416-S	02/16/96	URANIUM-238	ND	2.73	PCI/G	*	*
SC-01416-S-RA	02/20/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G	*	*
SC-01416-S-RA	02/20/96	1,3-DINITROBENZENE	ND	0.200	UG/G	*	*
SC-01416-S-RA	02/20/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G	*	*
SC-01416-S-RA	02/20/96	2,4-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01416-S-RA	02/20/96	2,6-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01416-S-RA	02/20/96	NITROBENZENE	ND	0.200	UG/G	*	*
SC-01417-S	02/16/96	URANIUM-238	10.7	3.66	PCI/G	*	*
SC-01418-S	02/16/96	URANIUM-238	4.65	2.53	PCI/G	*	*
SC-01418-S-RA	02/20/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/R	*	*
SC-01418-S-RA	02/20/96	1,3-DINITROBENZENE	ND	0.200	UG/G	*	*
SC-01418-S-RA	02/20/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G	*	*
SC-01418-S-RA	02/20/96	2,4-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01418-S-RA	02/20/96	2,6-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01418-S-RA	02/20/96	NITROBENZENE	ND	0.200	UG/G	*	*
SC-01501-S	02/19/96	RADIUM-226	1.43	0.35	PCI/G	*	*
SC-01501-S	02/19/96	RADIUM-228	1.23	0.42	PCI/G	*	*
SC-01501-S	02/19/96	URANIUM-238	ND	4.41	PCI/G	*	*
SC-01502-S	02/19/96	RADIUM-226	1.44	0.33	PCI/G	*	*
SC-01502-S	02/19/96	RADIUM-228	1.21	0.52	PCI/G	*	*
SC-01502-S	02/19/96	URANIUM-238	39.8	6.36	PCI/G	*	*
SC-01503-S	02/19/96	RADIUM-226	1.45	0.38	PCI/G	*	*
SC-01503-S	02/19/96	RADIUM-228	1.28	0.52	PCI/G	*	*
SC-01503-S	02/19/96	URANIUM-238	ND	4.69	PCI/G	*	*

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SC-01503-S-RA	02/22/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G		*
SC-01503-S-RA	02/22/96	1,3-DINITROBENZENE	ND	0.200	UG/G		*
SC-01503-S-RA	02/22/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G		*
SC-01503-S-RA	02/22/96	2,4-DINITROTOLUENE	ND	0.330	UG/G		*
SC-01503-S-RA	02/22/96	2,6-DINITROTOLUENE	ND	0.330	UG/G		*
SC-01503-S-RA	02/22/96	NITROBENZENE	ND	0.200	UG/G		*
SC-01504-C	02/19/96	RADIUM-226	1.52	0.44	PCI/G		*
SC-01504-C	02/19/96	RADIUM-228	1.38	0.47	PCI/G		*
SC-01504-C	02/19/96	URANIUM-238	(1.94)	2.52	PCI/G		*
SC-01504-S	02/19/96	RADIUM-226	1.58	0.29	PCI/G		*
SC-01504-S	02/19/96	RADIUM-228	1.16	0.56	PCI/G		*
SC-01504-S	02/19/96	URANIUM-238	3.99	3.29	PCI/G		*
SC-01505-S	02/19/96	RADIUM-226	1.33	0.46	PCI/G		*
SC-01505-S	02/19/96	RADIUM-228	1.11	0.39	PCI/G		*
SC-01505-S	02/19/96	URANIUM-238	37.7	6.95	PCI/G		*
SC-01506-S	02/19/96	RADIUM-226	1.50	0.41	PCI/G		*
SC-01506-S	02/19/96	RADIUM-228	1.04	0.52	PCI/G		*
SC-01506-S	02/19/96	URANIUM-238	5.60	3.51	PCI/G		*
SC-01507-C	02/19/96	RADIUM-226	1.31	0.43	PCI/G		*
SC-01507-C	02/19/96	RADIUM-228	1.25	0.43	PCI/G		*
SC-01507-C	02/19/96	URANIUM-238	(1.75)	3.60	PCI/G		*
SC-01507-S	02/19/96	RADIUM-226	1.51	0.35	PCI/G		*
SC-01507-S	02/19/96	RADIUM-228	1.21	0.55	PCI/G		*
SC-01507-S	02/19/96	URANIUM-238	9.19	2.82	PCI/G		*
SC-01508-S	02/19/96	RADIUM-226	1.34	0.38	PCI/G		*
SC-01508-S	02/19/96	RADIUM-228	1.10	0.44	PCI/G		*
SC-01508-S	02/19/96	URANIUM-238	5.00	2.87	PCI/G		*
SC-01509-S	02/19/96	RADIUM-226	1.41	0.23	PCI/G		*
SC-01509-S	02/19/96	RADIUM-228	1.25	0.68	PCI/G		*
SC-01509-S	02/19/96	URANIUM-238	ND	4.62	PCI/G		*
SC-01510-C	02/19/96	RADIUM-226	1.61	0.43	PCI/G		*
SC-01510-C	02/19/96	RADIUM-228	1.37	0.66	PCI/G		*
SC-01510-C	02/19/96	URANIUM-238	41.0	6.12	PCI/G		*
SC-01510-S	02/19/96	RADIUM-226	1.29	0.42	PCI/G		*
SC-01510-S	02/19/96	RADIUM-228	1.33	0.22	PCI/G		*
SC-01510-S	02/19/96	URANIUM-238	ND	4.78	PCI/G		*
SC-01510-S-RA	02/22/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G		*
SC-01510-S-RA	02/22/96	1,3-DINITROBENZENE	ND	0.200	UG/G		*
SC-01510-S-RA	02/22/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G		*
SC-01510-S-RA	02/22/96	2,4-DINITROTOLUENE	ND	0.330	UG/G		*
SC-01510-S-RA	02/22/96	2,6-DINITROTOLUENE	ND	0.330	UG/G		*
SC-01510-S-RA	02/22/96	NITROBENZENE	ND	0.200	UG/G		*
SC-01511-S	02/19/96	RADIUM-226	1.57	0.29	PCI/G		*
SC-01511-S	02/19/96	RADIUM-228	1.19	0.41	PCI/G		*
SC-01511-S	02/19/96	URANIUM-238	7.90	4.30	PCI/G		*
SC-01512-S	02/19/96	RADIUM-226	1.61	0.31	PCI/G		*
SC-01512-S	02/19/96	RADIUM-228	1.59	0.52	PCI/G		*
SC-01512-S	02/19/96	URANIUM-238	4.51	2.15	PCI/G		*
SC-01513-S	02/19/96	RADIUM-226	1.14	0.35	PCI/G		*
SC-01513-S	02/19/96	RADIUM-228	0.89	0.59	PCI/G		*
SC-01513-S	02/19/96	URANIUM-238	ND	3.77	PCI/G		*
SC-01514-S	02/19/96	RADIUM-226	1.46	0.29	PCI/G		*
SC-01514-S	02/19/96	RADIUM-228	1.32	0.46	PCI/G		*

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SC-01514-S	02/19/96	URANIUM-238	27.6	4.21	PCI/G	*	*
SC-01515-S	02/19/96	RADIUM-226	1.32	0.34	PCI/G	*	*
SC-01515-S	02/19/96	RADIUM-228	ND	0.98	PCI/G	*	*
SC-01515-S	02/19/96	URANIUM-238	27.9	4.95	PCI/G	*	*
SC-01515-S-RA	02/22/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G	*	*
SC-01515-S-RA	02/22/96	1,3-DINITROBENZENE	ND	0.200	UG/G	*	*
SC-01515-S-RA	02/22/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G	*	*
SC-01515-S-RA	02/22/96	2,4-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01515-S-RA	02/22/96	2,6-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01515-S-RA	02/22/96	NITROBENZENE	ND	0.200	UG/G	*	*
SC-01516-S	02/28/96	RADIUM-226	1.18	0.36	PCI/G	*	*
SC-01516-S	02/28/96	RADIUM-228	1.28	0.41	PCI/G	*	*
SC-01516-S	02/28/96	URANIUM-238	(1.63)	2.17	PCI/G	*	*
SC-01517-S	02/28/96	RADIUM-226	1.17	0.42	PCI/G	*	*
SC-01517-S	02/28/96	RADIUM-228	0.92	0.42	PCI/G	*	*
SC-01517-S	02/28/96	URANIUM-238	4.32	2.72	PCI/G	*	*
SC-01518-S	02/28/96	RADIUM-226	1.44	0.31	PCI/G	*	*
SC-01518-S	02/28/96	RADIUM-228	1.33	0.50	PCI/G	*	*
SC-01518-S	02/28/96	URANIUM-238	ND	3.15	PCI/G	*	*
SC-01601-S	02/19/96	URANIUM-238	9.77	4.09	PCI/G	*	*
SC-01602-S	02/19/96	URANIUM-238	12.3	4.48	PCI/G	*	*
SC-01603-S	02/19/96	URANIUM-238	ND	4.66	PCI/G	*	*
SC-01604-S	02/19/96	URANIUM-238	12.7	4.84	PCI/G	*	*
SC-01605-S	02/19/96	URANIUM-238	ND	2.88	PCI/G	*	*
SC-01606-S	02/19/96	URANIUM-238	3.16	2.40	PCI/G	*	*
SC-01607-C	02/19/96	URANIUM-238	27.2	6.07	PCI/G	*	*
SC-01607-S	02/19/96	URANIUM-238	5.90	2.76	PCI/G	*	*
SC-01608-S	02/19/96	URANIUM-238	5.97	4.06	PCI/G	*	*
SC-01609-S	02/19/96	URANIUM-238	5.25	2.15	PCI/G	*	*
SC-01610-C	02/19/96	URANIUM-238	ND	4.38	PCI/G	*	*
SC-01610-S	02/19/96	URANIUM-238	4.15	2.43	PCI/G	*	*
SC-01611-S	02/19/96	URANIUM-238	ND	4.59	PCI/G	*	*
SC-01612-C	02/19/96	URANIUM-238	(1.83)	2.05	PCI/G	*	*
SC-01612-S	02/19/96	URANIUM-238	25.7	5.14	PCI/G	*	*
SC-01613-S	02/19/96	URANIUM-238	ND	2.71	PCI/G	*	*
SC-01614-S	02/19/96	URANIUM-238	ND	4.66	PCI/G	*	*
SC-01615-S	02/19/96	URANIUM-238	58.7	4.78	PCI/G	*	*
SC-01616-S	02/19/96	URANIUM-238	(2.02)	2.91	PCI/G	*	*
SC-01618-C	02/19/96	URANIUM-238	ND	2.86	PCI/G	*	*
SC-01619-S	02/28/96	RADIUM-226	0.88	0.38	PCI/G	*	*
SC-01619-S	02/28/96	URANIUM-238	ND	2.71	PCI/G	*	*
SC-01620-S	02/19/96	URANIUM-238	ND	2.62	PCI/G	*	*
SC-01701-S	02/22/96	RADIUM-226	1.67	0.31	PCI/G	*	*
SC-01701-S	02/22/96	URANIUM-238	6.69	2.83	PCI/G	*	*
SC-01702-S	02/22/96	URANIUM-238	ND	2.73	PCI/G	*	*
SC-01703-S	02/20/96	RADIUM-226	1.42	0.33	PCI/G	*	*
SC-01703-S	02/20/96	URANIUM-238	ND	3.94	PCI/G	*	*
SC-01704-C	02/20/96	URANIUM-238	ND	4.02	PCI/G	*	*
SC-01704-S	02/20/96	URANIUM-238	4.85	2.45	PCI/G	*	*
SC-01705-S	02/20/96	URANIUM-238	3.36	4.02	PCI/G	*	*
SC-01706-S	02/20/96	URANIUM-238	7.60	3.80	PCI/G	*	*
SC-01707-S	02/20/96	RADIUM-226	1.44	0.29	PCI/G	*	*
SC-01707-S	02/20/96	URANIUM-238	13.3	2.75	PCI/G	*	*
SC-01708-S	02/20/96	URANIUM-238	2.62	2.08	PCI/G	*	*

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SC-01709-S	02/20/96	URANIUM-238	2.57	2.15	PCI/G	*	*
SC-01710-S	02/20/96	URANIUM-238	46.0	6.99	PCI/G	*	*
SC-01711-S	02/20/96	RADIUM-226	1.26	0.35	PCI/G	*	*
SC-01711-S	02/20/96	URANIUM-238	9.04	4.56	PCI/G	*	*
SC-01712-C	02/20/96	URANIUM-238	8.71	4.56	PCI/G	*	*
SC-01712-S	02/20/96	URANIUM-238	7.12	2.13	PCI/G	*	*
SC-01713-C	02/20/96	URANIUM-238	4.91	3.65	PCI/G	*	*
SC-01713-S	02/20/96	URANIUM-238	12.4	2.58	PCI/G	*	*
SC-01714-S	02/20/96	URANIUM-238	34.6	3.82	PCI/G	*	*
SC-01715-S	02/20/96	RADIUM-226	1.32	0.30	PCI/G	*	*
SC-01715-S	02/20/96	URANIUM-238	5.36	2.95	PCI/G	*	*
SC-01716-S	02/20/96	URANIUM-238	ND	4.49	PCI/G	*	*
SC-01717-S	02/20/96	URANIUM-238	ND	2.74	PCI/G	*	*
SC-01718-S	02/20/96	URANIUM-238	(1.52)	2.07	PCI/G	*	*
SC-01719-C	02/28/96	RADIUM-228	1.13	0.32	PCI/G	*	*
SC-01719-C	02/28/96	URANIUM-238	3.34	2.44	PCI/G	*	*
SC-01720-S	02/28/96	RADIUM-228	1.36	0.46	PCI/G	*	*
SC-01720-S	02/28/96	URANIUM-238	7.88	2.39	PCI/G	*	*
SC-01802-S	02/22/96	RADIUM-226	1.44	0.23	PCI/G	*	*
SC-01802-S	02/22/96	URANIUM-238	ND	2.89	PCI/G	*	*
SC-01803-S	02/22/96	RADIUM-226	1.47	0.36	PCI/G	*	*
SC-01803-S	02/22/96	URANIUM-238	ND	3.71	PCI/G	*	*
SC-01804-S	02/22/96	RADIUM-226	1.30	0.36	PCI/G	*	*
SC-01804-S	02/22/96	URANIUM-238	(3.25)	3.78	PCI/G	*	*
SC-01805-C	02/22/96	RADIUM-226	1.17	0.32	PCI/G	*	*
SC-01805-C	02/22/96	URANIUM-238	ND	3.03	PCI/G	*	*
SC-01806-S	02/22/96	RADIUM-226	1.19	0.36	PCI/G	*	*
SC-01806-S	02/22/96	URANIUM-238	ND	3.87	PCI/G	*	*
SC-01807-S	02/22/96	RADIUM-226	1.73	0.38	PCI/G	*	*
SC-01807-S	02/22/96	URANIUM-238	(3.03)	3.36	PCI/G	*	*
SC-01808-C	02/26/96	RADIUM-226	1.46	0.28	PCI/G	*	*
SC-01808-C	02/26/96	URANIUM-238	3.73	2.89	PCI/G	*	*
SC-01808-S	02/20/96	RADIUM-226	1.36	0.30	PCI/G	*	*
SC-01808-S	02/20/96	URANIUM-238	ND	4.28	PCI/G	*	*
SC-01810-S	02/26/96	RADIUM-226	1.35	0.36	PCI/G	*	*
SC-01810-S	02/26/96	URANIUM-238	ND	3.08	PCI/G	*	*
SC-01811-C	02/22/96	RADIUM-226	1.26	0.26	PCI/G	*	*
SC-01811-C	02/22/96	URANIUM-238	ND	5.22	PCI/G	*	*
SC-01811-S	02/20/96	RADIUM-226	(1.25)	2.91	PCI/G	*	*
SC-01811-S	02/20/96	URANIUM-238	ND	3.31	PCI/G	*	*
SC-01811-S-RA	02/22/96	1,3,5-TRINITROBENZEN	ND	0.200	UG/G	*	*
SC-01811-S-RA	02/22/96	1,3-DINITROBENZENE	ND	0.200	UG/G	*	*
SC-01811-S-RA	02/22/96	2,4,6-TRINITROTOLUEN	ND	0.200	UG/G	*	*
SC-01811-S-RA	02/22/96	2,4-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01811-S-RA	02/22/96	2,6-DINITROTOLUENE	ND	0.330	UG/G	*	*
SC-01811-S-RA	02/22/96	NITROBENZENE	ND	0.200	UG/G	*	*
SC-01812-S	02/20/96	RADIUM-226	1.49	0.44	PCI/G	*	*
SC-01812-S	02/20/96	URANIUM-238	ND	4.35	PCI/G	*	*
SC-01813-C	02/26/96	RADIUM-226	1.27	0.32	PCI/G	*	*
SC-01813-C	02/26/96	URANIUM-238	ND	3.89	PCI/G	*	*
SC-01814-S	02/20/96	RADIUM-226	1.41	0.30	PCI/G	*	*
SC-01814-S	02/20/96	URANIUM-238	2.73	2.57	PCI/G	*	*
SC-01815-S	02/20/96	RADIUM-226	1.22	0.39	PCI/G	*	*
SC-01815-S	02/20/96	URANIUM-238	ND	4.13	PCI/G	*	*
SC-01816-S	02/20/96	RADIUM-226	1.43	0.35	PCI/G	*	*

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS	VER_QU	VAL_QUAL
SC-01816-S	02/20/96	URANIUM-238	8.58	2.92	PCI/G		*
SC-01818-C	02/20/96	RADIUM-226	1.26	0.29	PCI/G		*
SC-01818-C	02/20/96	URANIUM-238	ND	4.41	PCI/G		*
SC-01818-S	02/28/96	RADIUM-226	1.49	0.31	PCI/G		*
SC-01818-S	02/28/96	RADIUM-228	0.85	0.63	PCI/G		*
SC-01818-S	02/28/96	URANIUM-238	ND	4.14	PCI/G		*
SC-01819-S	02/28/96	RADIUM-226	1.50	0.33	PCI/G		*
SC-01819-S	02/28/96	RADIUM-228	1.14	0.48	PCI/G		*
SC-01819-S	02/28/96	URANIUM-238	ND	2.95	PCI/G		*
SC-01820-S	02/20/96	RADIUM-226	1.47	0.31	PCI/G		*
SC-01820-S	02/20/96	URANIUM-238	ND	3.33	PCI/G		*
SC-01902-S	02/26/96	URANIUM-238	ND	2.77	PCI/G		*
SC-01903-S	02/26/96	URANIUM-238	ND	4.00	PCI/G		*
SC-01905-C	02/26/96	URANIUM-238	ND	2.70	PCI/G		*
SC-01905-S	02/26/96	URANIUM-238	ND	3.92	PCI/G		*
SC-01906-C	02/26/96	URANIUM-238	ND	2.53	PCI/G		*
SC-01906-S	02/26/96	URANIUM-238	ND	3.97	PCI/G		*
SC-01907-S	02/26/96	URANIUM-238	ND	2.78	PCI/G		*
SC-01909-S	02/26/96	URANIUM-238	ND	2.92	PCI/G		*

APPENDIX D
Unpublished Documents



MORRISON KNUDSEN CORPORATION

MK-FERGUSON GROUP

INTER-OFFICE CORRESPONDENCE

DATE: March 8, 1996
TO: Distribution
FROM: Craig Kish *ck*
SUBJECT: CORRECTIONS TO AVERAGE CONCENTRATIONS IN CU0011 THROUGH CU0018

The average concentration calculations used to disposition CU0011 through CU0018 are not accurate, although all of the corrected averages are still well below the ALARA goals and, therefore, do not effect disposition of the CUs. The original concentration average calculations did not use data from sample locations in adjacent CUs that fell on the perimeter; also, non-detects were not used in the average calculations. The revised concentration average incorporates the perimeter sample locations and uses one-half of the detection limit for all non-detects in accordance with the *Chemical Plant Area Cleanup Attainment Confirmation Plan*.

Attached are copies of the revised tables for CU011 through CU018. The far right-hand column lists the concentrations used for the average calculation, i.e., either the actual (preliminary) concentration or one-half of the detection limit. The double outlined box at the far right-hand column then indicates the final (preliminary) average. Note that the results are still predominantly preliminary data and the results will likely change at least slightly once the final data is delivered after verification. Therefore, the concentration averages will change again after the final data is delivered.

CK/jn

Attachments

Distribution:

Darl Ferguson
Jim Meier
Ken Meyer
Ken Warbritton
Steve Warren

cc: Tom Pauling, DOE
Timothy Vitkus, ORISE
Daniel Wall, W.S. EPA, Region VII
Martha Windsor, MDNR

Soil Confirmation Results for OU11

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	CONC. FOR AVERAGE	
SC-01101-S	02/22/96	U-238		9.93	N/A	N/A	pCi/g	4.36	Preliminary	8.93
SC-01102-S	02/22/96	U-238		2.40	N/A	N/A	pCi/g	1.80	Preliminary	2.40
SC-01103-S	02/22/96	U-238	ND	N/A	N/A	pCi/g	4.21	Preliminary	2.11	
SC-01104-S	02/14/96	U-238	ND	N/A	N/A	pCi/g	4.50	Preliminary	2.25	
SC-01105-S	02/14/96	U-238		9.92	N/A	N/A	pCi/g	5.81	Preliminary	8.32
SC-01106-S	02/14/96	U-238		3.75	N/A	N/A	pCi/g	2.80	Preliminary	3.75
SC-01107-S	02/14/96	U-238	ND	N/A	N/A	pCi/g	2.52	Preliminary	1.26	
SC-01108-S	02/14/96	U-238	ND	N/A	N/A	pCi/g	3.65	Preliminary	1.83	
SC-01109-S	02/14/96	U-238		1.64	N/A	N/A	pCi/g	1.54	Preliminary	1.64
SC-01110-S	02/14/96	U-238	ND	N/A	N/A	pCi/g	3.95	Preliminary	2.00	
SC-01111-S	02/14/96	U-238	NO	N/A	N/A	pCi/g	4.53	Preliminary	2.27	
SC-01112-S	02/14/96	U-238		12.70	N/A	N/A	pCi/g	2.85	Preliminary	12.70
SC-01113-S	02/14/96	U-238		5.23	N/A	N/A	pCi/g	2.45	Preliminary	5.23
SC-01114-S	02/14/96	U-238	ND	N/A	N/A	pCi/g	4.50	Preliminary	2.25	
SC-01115-S	02/14/96	U-238	ND	N/A	N/A	pCi/g	4.32	Preliminary	2.16	
SC-01116-S	02/14/96	U-238	ND	N/A	N/A	pCi/g	2.89	Preliminary	1.32	
SC-01117-S	02/14/96	U-238	ND	N/A	N/A	pCi/g	4.17	Preliminary	2.09	
SC-01118-S	02/14/96	U-238		56.80	N/A	N/A	pCi/g	7.66	Preliminary	56.80
SC-01119-S	02/14/96	U-238		2.90	N/A	N/A	pCi/g	2.48	Preliminary	2.68
SC-01120-S	02/14/96	U-238		7.30	N/A	N/A	pCi/g	4.57	Preliminary	7.30
SC-01121-S	02/14/96	U-238		2.87	N/A	N/A	pCi/g	2.38	Preliminary	2.87
SC-01121-S	12/13/95	U-238	ND	N/A	N/A	pCi/g	3.00	Preliminary	1.50	
SC-01122-S	12/13/95	U-238	ND	N/A	N/A	pCi/g	4.47	Final Result	2.24	
SC-01123-S	12/13/95	U-238	ND	N/A	N/A	pCi/g	3.00	Final Result	1.50	
SC-01124-S	12/13/95	U-238	ND	N/A	N/A	pCi/g	4.12	Final Result	2.06	

MAXIMUM U-238	56.80
AVERAGE U-238	4.51

SC-00901-S	12/05/95	U-238	ND	N/A	N/A	pCi/g	5.09	Final Result	1.82
SC-00906-S	12/05/95	U-238	ND	N/A	N/A	pCi/g	4.42	Final Result	2.21
SC-00917-S	12/05/95	U-238	2.04	N/A	N/A	pCi/g	2.45	Final Result	2.04

FINAL U-238 AVE.	5.19
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SC-01101-S	02/22/96	Ra-226		1.12	2.34	pCi/g	0.34	Rn not ingrown	2.54
SC-01102-S	02/22/96	Ra-226		0.82	1.86	pCi/g	0.27	Rn not ingrown	1.86
SC-01103-S	02/22/96	Ra-226		0.73	1.65	pCi/g	0.36	Rn not ingrown	1.65
SC-01104-S	02/14/96	Ra-226		0.75	1.70	pCi/g	0.28	Rn not ingrown	1.70
SC-01106-S	02/14/96	Ra-226		0.72	1.83	pCi/g	0.29	Rn not ingrown	1.83
SC-01108-S	02/14/96	Ra-226		1.04	2.36	pCi/g	0.24	Rn not ingrown	2.36
SC-01107-S	02/14/96	Ra-226		0.75	1.70	pCi/g	0.25	Rn not ingrown	1.70
SC-01108-S	02/14/96	Ra-226		1.05	2.38	pCi/g	0.27	Rn not ingrown	2.38
SC-01109-S	02/14/96	Ra-226		0.84	1.91	pCi/g	0.29	Rn not ingrown	1.91
SC-01110-S	02/14/96	Ra-226		0.78	1.73	pCi/g	0.38	Rn not ingrown	1.73
SC-01111-S	02/14/96	Ra-226		0.94	2.13	pCi/g	0.34	Rn not ingrown	2.13
SC-01112-S	02/14/96	Ra-226		0.80	1.82	pCi/g	0.23	Rn not ingrown	1.82
SC-01113-S	02/14/96	Ra-226		0.84	2.00	pCi/g	0.22	Rn not ingrown	2.00
SC-01114-S	02/14/96	Ra-226		1.30	3.18	pCi/g	0.37	Rn not ingrown	3.18
SC-01115-S	02/14/96	Ra-226		0.85	1.93	pCi/g		Rn not ingrown	1.93
SC-01116-S	02/14/96	Ra-226		0.85	1.93	pCi/g	0.27	Rn not ingrown	1.93
SC-01117-S	02/14/96	Ra-226		0.85	1.93	pCi/g	0.26	Rn not ingrown	1.93
SC-01118-S	02/14/96	Ra-226		0.89	2.02	pCi/g	0.29	Rn not ingrown	2.02
SC-01119-C	02/14/96	Ra-226		0.71	1.81	pCi/g	0.21	Rn not ingrown	1.81
SC-01119-S	02/14/96	Ra-226		1.11	2.62	pCi/g		Rn not ingrown	2.62
SC-01120-S	02/14/96	Ra-226		0.88	2.00	pCi/g	0.32	Rn not ingrown	2.00
SC-01121-S	02/14/96	Ra-226		0.88	2.22	pCi/g	0.22	Rn not ingrown	2.22
SC-01122-S	12/13/95	Ra-226		1.10	2.70	pCi/g	1.59	Final Results	1.59
SC-01123-S	12/13/95	Ra-226		0.93	2.11	pCi/g	1.29	Final Results	1.29
SC-01124-S	12/13/95	Ra-226		0.78	1.77	pCi/g	0.37	Final Results	1.29

MAXIMUM Ra-226	3.18
AVERAGE Ra-226	2.05

SC-00901-S	12/05/95	Ra-226	0.71	1.81	1.09	pCi/g	0.37	Final Results	1.09
SC-00906-S	12/05/95	Ra-226	1.15	2.81	1.18	pCi/g	0.31	Final Results	1.15
SC-00917-S	12/05/95	Ra-226	0.99	2.25	1.39	pCi/g	0.26	Final Results	1.39

FINAL Ra-226 AVE.	1.85
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SC-01101-S	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01102-S	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01103-S	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01104-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01105-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01106-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01107-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01108-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01109-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01110-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01111-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01112-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01113-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01114-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01115-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01116-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01117-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01118-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01118-C	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01119-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01120-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01121-S	02/14/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01122-S	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01122-S-R	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.2	None	
SC-01123-S	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01124-S	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00901-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00906-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00917-S	12/05/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	

Soil Confirmation Results for CL012

WSSRAP ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS		
SC-01201-S	02/14/98	U-236		2.96	N/A	N/A	pC/g	4.70	Preliminary	2.85
SC-01202-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	3.06	Preliminary	1.53
SC-01203-S	02/14/98	U-236		2.73	N/A	N/A	pC/g	2.53	Preliminary	2.73
SC-01204-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	2.80	Preliminary	1.40
SC-01205-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	3.94	Preliminary	1.97
SC-01206-S	02/14/98	U-236		21.44	N/A	N/A	pC/g	3.48	Preliminary	21.44
SC-01209-C	02/14/98	U-236		2.69	N/A	N/A	pC/g	4.42	Preliminary	2.26
SC-01209-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	4.51	Preliminary	2.26
SC-01207-S	02/14/98	U-236		3.00	N/A	N/A	pC/g	1.88	Preliminary	3.20
SC-01208-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	2.81	Preliminary	1.48
SC-01209-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	2.98	Preliminary	1.48
SC-01211-S	02/14/98	U-236		3.42	N/A	N/A	pC/g	4.40	Preliminary	3.42
SC-01212-S	02/14/98	U-236		2.55	N/A	N/A	pC/g	3.68	Preliminary	2.55
SC-01213-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	2.81	Preliminary	1.31
SC-01214-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	4.24	Preliminary	2.12
SC-01215-S	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	4.17	Preliminary	2.08
SC-01215-S	02/14/98	U-236		2.84	N/A	N/A	pC/g	1.73	Preliminary	2.66
SC-01215-S	02/14/98	U-236		5.03	N/A	N/A	pC/g	2.98	Preliminary	5.03
SC-01216-C	02/14/98	U-236	ND	N/A	N/A	N/A	pC/g	2.95	Preliminary	1.34
SC-01216-S	02/14/98	U-236	ND	4.40	N/A	N/A	pC/g	2.78	Preliminary	4.40

MAXIMUM U-236 21.44
AVERAGE U-236 2.80

SC-00801-S	12/07/95	U-236	ND	N/A	N/A	pC/g	5.15	Final	2.08
SC-01001-S	12/07/95	U-236	ND	N/A	N/A	pC/g	4.03	Final	2.02
SC-01007-S	12/07/95	U-236	ND	N/A	N/A	pC/g	4.12	Final	2.05
SC-01013-S	12/07/95	U-236	ND	N/A	N/A	pC/g	4.14	Final	2.07
SC-01118-S	02/14/98	U-236	56.60	N/A	N/A	pC/g	7.95	Preliminary	56.60
SC-01118-S	02/14/98	U-236	7.30	N/A	N/A	pC/g	4.87	Preliminary	7.30
SC-01120-S	02/14/98	U-236	2.87	N/A	N/A	pC/g	2.39	Preliminary	2.87
SC-01121-S	02/14/98	U-236	ND	N/A	N/A	pC/g	3.00	Preliminary	1.50
SC-01122-S	12/13/95	U-236	ND	N/A	N/A	pC/g	4.47	Final	2.24
SC-01323-S	2/15/98	U-236	1.25	N/A	N/A	pC/g	2.22	Preliminary	1.25

FINAL U-236 AVE 5.18

SC-01201-S	02/14/98	Ra-226	0.93	2.11		pC/g	0.42	Rn not ingrown	2.11
SC-01202-S	02/14/98	Ra-226	0.82	1.41		pC/g	0.27	Rn not ingrown	1.41
SC-01203-S	02/14/98	Ra-226	0.74	1.84		pC/g	0.28	Rn not ingrown	1.84
SC-01204-S	02/14/98	Ra-226	1.03	2.34		pC/g	0.31	Rn not ingrown	2.34
SC-01205-S	02/14/98	Ra-226	0.73	1.68		pC/g	0.43	Rn not ingrown	1.68
SC-01206-S	02/14/98	Ra-226	0.72	1.65		pC/g	0.26	Rn not ingrown	1.63
SC-01209-C	02/14/98	Ra-226	0.55	1.93		pC/g	0.35	Rn not ingrown	1.83
SC-01207-S	02/14/98	Ra-226	0.84	1.91		pC/g	0.23	Rn not ingrown	1.91
SC-01208-S	02/14/98	Ra-226	0.71	1.81		pC/g	0.27	Rn not ingrown	1.81
SC-01209-S	02/14/98	Ra-226	0.95	2.19		pC/g	0.23	Rn not ingrown	2.18
SC-01210-S	02/14/98	Ra-226	0.87	1.97		pC/g	0.23	Rn not ingrown	1.97
SC-01211-S	02/14/98	Ra-226	1.51	4.11		pC/g	0.49	Rn not ingrown	4.11
SC-01212-S	02/14/98	Ra-226	0.80	1.82		pC/g	0.37	Rn not ingrown	1.82
SC-01213-S	02/14/98	Ra-226	0.78	1.73		pC/g	0.30	Rn not ingrown	1.73
SC-01214-S	02/14/98	Ra-226	0.92	2.09		pC/g	0.36	Rn not ingrown	2.09
SC-01215-S	02/14/98	Ra-226	0.69	2.02		pC/g	0.33	Rn not ingrown	2.02
SC-01215-S	02/14/98	Ra-226	0.69	2.02		pC/g	0.34	Rn not ingrown	2.02
SC-01215-C	02/14/98	Ra-226	0.93	2.06		pC/g	0.24	Rn not ingrown	2.09
SC-01219-S	02/14/98	Ra-226	1.03	2.34		pC/g	0.22	Rn not ingrown	2.34
SC-01220-S	02/14/98	Ra-226	2.09	4.74		pC/g	0.34	Rn not ingrown	4.74

MAXIMUM Ra-226 4.74
AVERAGE Ra-226 2.17

SC-00801-S	12/07/95	Ra-226	1.21	2.75	1.42	pC/g	0.34	Final Result	1.42
SC-01001-S	12/07/95	Ra-226	0.95	2.16	1.52	pC/g	0.44	Final Result	1.52
SC-01007-S	12/07/95	Ra-226	0.83	2.11	1.27	pC/g	0.34	Final Result	1.27
SC-01013-S	12/07/95	Ra-226	0.98	2.22	1.49	pC/g	0.28	Final Result	1.49
SC-01118-S	02/14/98	Ra-226	0.59	2.02		pC/g	0.39	Rn not ingrown	2.02
SC-01119-S	02/14/98	Ra-226	1.11	2.52		pC/g	0.35	Rn not ingrown	2.52
SC-01120-S	02/14/98	Ra-226	0.88	2.00		pC/g	0.32	Rn not ingrown	2.00
SC-01121-S	02/14/98	Ra-226	0.88	2.22		pC/g	0.22	Rn not ingrown	2.22
SC-01122-S	12/13/95	Ra-226	1.19	2.70	1.58	pC/g	0.33	Final Result	1.58
SC-01323-S	2/15/98	Ra-226	0.85	1.95		pC/g	0.24	Rn not ingrown	1.95

FINAL Ra-226 AVE 2.05

SC-01201-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01202-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01203-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01204-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01205-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01209-C	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01209-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01207-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01208-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01209-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01210-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01211-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01212-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01213-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01214-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01215-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01218-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01218-C	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01219-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01220-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-00801-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01001-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01007-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01013-S	12/07/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01118-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01119-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01120-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01121-S	02/14/98	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01122-S	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01122-S-R	12/13/95	TNT	ND	N/A	N/A	mg/kg	0.2	None	
SC-01323-S	02/15/98	TNT	ND	N/A	N/A	mg/kg	0.2	None	

Soil Confirmation Results for CU019

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	CONC. FOR AVERAGE
SC-01302-S	2/15/95	U-238	4.75	N/A	N/A	pCi/g	3.92	Preliminary	4.75
SC-01303-S	2/15/95	U-238	43.84	N/A	N/A	pCi/g	5.11	Preliminary	43.84
SC-01304-S	2/15/95	U-238	11.00	N/A	N/A	pCi/g	4.71	Preliminary	11.00
SC-01305-S	2/15/95	U-238	5.48	N/A	N/A	pCi/g	4.66	Preliminary	5.48
SC-01306-S	2/15/95	U-238	3.34	N/A	N/A	pCi/g	2.10	Preliminary	3.34
SC-01307-S	2/15/95	U-238	4.74	N/A	N/A	pCi/g	3.92	Preliminary	4.74
SC-01308-S	2/15/95	U-238	8.88	N/A	N/A	pCi/g	2.96	Preliminary	8.88
SC-01309-S	2/15/95	U-238	4.03	N/A	N/A	pCi/g	4.03	Preliminary	4.03
SC-01310-S	2/15/95	U-238	74.35	N/A	N/A	pCi/g	9.18	Preliminary	74.35
SC-01311-S	2/15/95	U-238	20.27	N/A	N/A	pCi/g	5.50	Preliminary	20.27
SC-01312-S	2/15/95	U-238	ND	N/A	N/A	pCi/g	2.82	Preliminary	1.41
SC-01313-S	2/15/95	U-238	5.74	N/A	N/A	pCi/g	3.01	Preliminary	5.74
SC-01314-S	2/15/95	U-238	29.71	N/A	N/A	pCi/g	8.52	Preliminary	29.71
SC-01315-S	2/15/95	U-238	8.78	N/A	N/A	pCi/g	4.00	Preliminary	8.78
SC-01316-S	2/15/95	U-238	ND	N/A	N/A	pCi/g	4.06	Preliminary	2.05
SC-01316-C	2/15/95	U-238	2.19	N/A	N/A	pCi/g	2.07	Preliminary	2.19
SC-01317-S	2/15/95	U-238	88.70	N/A	N/A	pCi/g	8.47	Preliminary	88.70
SC-01318-S	2/15/95	U-238	5.58	N/A	N/A	pCi/g	3.73	Preliminary	5.58
SC-01319-S	2/15/95	U-238	8.48	N/A	N/A	pCi/g	2.11	Preliminary	8.48
SC-01320-S	2/15/95	U-238	8.27	N/A	N/A	pCi/g	2.54	Preliminary	8.27
SC-01321-S	2/15/95	U-238	8.01	N/A	N/A	pCi/g	2.47	Preliminary	8.01
SC-01322-S	2/15/95	U-238	7.25	N/A	N/A	pCi/g	2.59	Preliminary	7.25
SC-01323-S	2/15/95	U-238	1.25	N/A	N/A	pCi/g	2.22	Preliminary	1.25
SC-01323-C	2/15/95	U-238	ND	N/A	N/A	pCi/g	2.60	Preliminary	1.30
MAXIMUM U-238			74.35						
AVERAGE U-238			14.34						
SC-01101-S	02/22/95	U-238	6.93	N/A	N/A	pCi/g	4.09	Preliminary	6.93
SC-01104-S	02/14/95	U-238	ND	N/A	N/A	pCi/g	4.50	Preliminary	2.25
SC-01111-S	02/14/95	U-238	ND	N/A	N/A	pCi/g	4.53	Preliminary	2.27
SC-01118-S	02/14/95	U-238	56.8	N/A	N/A	pCi/g	7.98	Preliminary	56.80
FINAL U-238 AVE.									14.52
SC-01303-S	2/15/95	Ra-226	0.92	2.09	N/A	pCi/g	0.36	Rn not ingrown	2.09
SC-01310-S	2/15/95	Ra-226	1.40	3.18	N/A	pCi/g	0.40	Rn not ingrown	3.18
SC-01317-S	2/15/95	Ra-226	0.36	2.00	N/A	pCi/g	0.34	Rn not ingrown	2.00
SC-01323-S	2/15/95	Ra-226	0.85	1.85	N/A	pCi/g	0.24	Rn not ingrown	1.95
MAXIMUM Ra-226			1.40	3.18					
AVERAGE Ra-226			0.85	2.31					
SC-01101-S	02/22/95	Ra-226	1.12	2.54	N/A	pCi/g	0.34	Rn not ingrown	2.54
SC-01104-S	02/14/95	Ra-226	0.75	1.70	N/A	pCi/g	0.29	Rn not ingrown	1.70
SC-01111-S	02/14/95	Ra-226	0.84	2.13	N/A	pCi/g	0.34	Rn not ingrown	2.13
SC-01118-S	02/14/95	Ra-226	0.89	2.02	N/A	pCi/g	0.30	Rn not ingrown	2.02
FINAL Ra-226 AVE.									2.20
SC-01303-S	2/15/95	Ra-226	1.05	N/A	N/A	pCi/g	0.41	Preliminary	1.05
SC-01310-S	2/15/95	Ra-226	1.28	N/A	N/A	pCi/g	0.25	Preliminary	1.28
SC-01317-S	2/15/95	Ra-226	1.25	N/A	N/A	pCi/g	0.23	Preliminary	1.25
MAXIMUM Ra-226			1.28						
AVERAGE Ra-226			1.19						
FINAL Ra-226 AVE.									1.19
SC-01302-S	02/22/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01303-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01304-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01305-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01306-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01307-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01308-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01309-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01310-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01311-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01312-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01313-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01314-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01315-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01316-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01316-C	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01317-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01318-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01319-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01320-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01321-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01322-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01323-S	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01323-C	02/15/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01101-S	02/22/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01104-S	02/14/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01111-S	02/14/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01118-S	02/14/95	TNT	ND	N/A	N/A	mg/kg	0.5	None	

Soil Confirmation Results for CU014

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	
SC-01401-S	02/15/98	U-238	56.42	N/A	N/A	pCi/g	5.19	Preliminary	56.42
SC-01401-C	02/15/98	U-238	26.24	N/A	N/A	pCi/g	3.48	Preliminary	26.24
SC-01402-S	02/15/98	U-238	17.35	N/A	N/A	pCi/g	2.83	Preliminary	17.35
SC-01402-C	02/15/98	U-238	40.14	N/A	N/A	pCi/g	6.76	Preliminary	40.14
SC-01403-S	02/15/98	U-238	12.28	N/A	N/A	pCi/g	2.75	Preliminary	12.28
SC-01404-S	02/15/98	U-238	5.71	N/A	N/A	pCi/g	3.47	Preliminary	5.71
SC-01404-C	02/15/98	U-238	2.11	N/A	N/A	pCi/g	1.65	Preliminary	2.11
SC-01405-S	02/15/98	U-238	6.07	N/A	N/A	pCi/g	3.29	Preliminary	6.07
SC-01406-S	02/15/98	U-238	5.27	N/A	N/A	pCi/g	4.71	Preliminary	5.27
SC-01407-S	02/15/98	U-238	112.27	N/A	N/A	pCi/g	10.44	Preliminary	112.27
SC-01407-C	02/15/98	U-238	21.56	N/A	N/A	pCi/g	3.60	Preliminary	21.56
SC-01408-S	02/15/98	U-238	14.85	N/A	N/A	pCi/g	5.35	Preliminary	14.85
SC-01408-C	02/15/98	U-238	19.09	N/A	N/A	pCi/g	4.39	Preliminary	19.09
SC-01409-S	02/15/98	U-238	6.83	N/A	N/A	pCi/g	2.96	Preliminary	6.83
SC-01409-C	02/15/98	U-238	12.63	N/A	N/A	pCi/g	4.53	Preliminary	12.63
SC-01410-S	02/15/98	U-238	9.42	N/A	N/A	pCi/g	4.81	Preliminary	9.42
SC-01410-C	02/15/98	U-238	10.90	N/A	N/A	pCi/g	4.81	Preliminary	10.90
SC-01411-S	02/15/98	U-238	NO	N/A	N/A	pCi/g	2.84	Preliminary	1.42
SC-01412-S	02/15/98	U-238	8.19	N/A	N/A	pCi/g	2.60	Preliminary	8.19
SC-01413-S	02/15/98	U-238	2.12	N/A	N/A	pCi/g	2.36	Preliminary	2.12
SC-01413-C	02/15/98	U-238	NO	N/A	N/A	pCi/g	2.67	Preliminary	1.34
SC-01416-S	02/15/98	U-238	NO	N/A	N/A	pCi/g	2.73	Preliminary	1.37
SC-01417-S	02/15/98	U-238	10.87	N/A	N/A	pCi/g	3.66	Preliminary	10.87
SC-01418-S	02/15/98	U-238	4.65	N/A	N/A	pCi/g	2.53	Preliminary	4.65
MAXIMUM U-238			112.27						
AVERAGE U-238			18.07						
SC-01317-S	02/15/98	U-238	88.70	N/A	N/A	pCi/g		Preliminary	88.70
SC-01318-S	02/15/98	U-238	6.58	N/A	N/A	pCi/g		Preliminary	6.58
SC-01319-S	02/15/98	U-238	9.49	N/A	N/A	pCi/g		Preliminary	9.49
SC-01320-S	02/15/98	U-238	8.27	N/A	N/A	pCi/g		Preliminary	8.27
SC-01321-S	02/15/98	U-238	8.01	N/A	N/A	pCi/g		Preliminary	8.01
SC-01322-S	02/15/98	U-238	7.25	N/A	N/A	pCi/g		Preliminary	7.25
SC-01323-S	02/15/98	U-238	1.25	N/A	N/A	pCi/g		Preliminary	1.25
SC-01201-S	02/14/98	U-238	2.85	N/A	N/A	pCi/g		Preliminary	2.85
SC-01206-S	02/14/98	U-238	21.44	N/A	N/A	pCi/g		Preliminary	21.44
SC-01211-S	02/14/98	U-238	8.42	N/A	N/A	pCi/g		Preliminary	8.42
FINAL U-238 AVE: 17.01									
SC-01401-S	02/15/98	Ra-226	1.00	2.27		pCi/g	0.38	Rn not ingrown	2.27
SC-01401-C	02/15/98	Ra-226	0.77	1.75		pCi/g	0.29	Rn not ingrown	1.75
SC-01402-S	02/15/98	Ra-226	0.92	2.09		pCi/g	0.27	Rn not ingrown	2.09
SC-01402-C	02/15/98	Ra-226	0.82	1.88		pCi/g	0.36	Rn not ingrown	1.88
SC-01407-S	02/15/98	Ra-226	1.59	3.81		pCi/g	0.4	Rn not ingrown	3.81
SC-01407-C	02/15/98	Ra-226	0.80	1.82		pCi/g	0.29	Rn not ingrown	1.82
SC-01408-C	02/15/98	Ra-226	0.95	2.18		pCi/g	0.28	Rn not ingrown	2.18
MAXIMUM Ra-226			1.59	3.81					
AVERAGE Ra-226			0.92	2.09					
SC-01317-S	02/15/98	Ra-226	0.88	2.00		pCi/g	0.34	Rn not ingrown	2.00
SC-01323-S	02/15/98	Ra-226	0.88	1.95		pCi/g	0.24	Rn not ingrown	1.95
SC-01201-S	02/14/98	Ra-226	0.93	2.11		pCi/g	0.42	Rn not ingrown	2.11
SC-01206-S	02/14/98	Ra-226	0.72	1.83		pCi/g	0.26	Rn not ingrown	1.83
SC-01311-S	02/14/98	Ra-226	1.81	4.11		pCi/g	0.49	Rn not ingrown	4.11
FINAL Ra-226 AVE: 2.23									
SC-01401-S	02/15/98	Ra-228	1.12	N/A	N/A	pCi/g	0.58	Preliminary	1.12
SC-01407-S	02/15/98	Ra-228	1.35	N/A	N/A	pCi/g	0.85	Preliminary	1.35
MAXIMUM Ra-228			1.35						
AVERAGE Ra-228			1.24						
SC-01317-S	02/15/98	Ra-228	1.25	N/A	N/A	pCi/g	0.23	Preliminary	1.25
FINAL Ra-228 AVE: 1.24									
SC-01404-S	02/15/98	Th-230	1.52	N/A	N/A	pCi/g	0.11	Preliminary	1.52
SC-01404-C	02/15/98	Th-230	0.81	N/A	N/A	pCi/g	0.08	Preliminary	0.81
SC-01409-C	02/15/98	Th-230	1.79	N/A	N/A	pCi/g	0.08	Preliminary	1.79
SC-01410-S	02/15/98	Th-230	1.54	N/A	N/A	pCi/g	0.04	Preliminary	1.54
SC-01410-C	02/15/98	Th-230	1.78	N/A	N/A	pCi/g	0.20	Preliminary	1.78
SC-01415-C	02/15/98	Th-230	1.51	N/A	N/A	pCi/g	0.13	Preliminary	1.51
MAXIMUM Th-230			1.79						
AVERAGE Th-230			1.49						
FINAL Th-230 AVE: 1.49									
SC-01401-S	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01401-C	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01402-S	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01402-C	02/15/98	TNT	0.08	N/A	N/A	mg/kg	0.5	Sample sent off site	
SC-01402-C-R	02/22/98	TNT	NO	N/A	N/A	mg/kg	0.2	Sample sent off site	
SC-01403-S		TNT	0.04	N/A	N/A	mg/kg	0.5	Sample sent off site	
SC-01403-S-R	02/22/98	TNT	NO	N/A	N/A	mg/kg	0.2	Sample sent off site	
SC-01404-S	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01404-C	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01405-S	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01406-S	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01407-S	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01407-C	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01408-S-R	02/22/98	TNT	NO	N/A	N/A	mg/kg	0.2	Sample sent off site	
SC-01408-S	02/15/98	TNT	0.08	N/A	N/A	mg/kg	0.5	Sample sent off site	
SC-01408-C-R	02/22/98	TNT	NO	N/A	N/A	mg/kg	0.2	Sample sent off site	
SC-01408-C	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	
SC-01408-S	02/15/98	TNT	NO	N/A	N/A	mg/kg	0.5	none	

SC-01408-C	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01410-S	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01410-C	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01411-S	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01412-S	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01415-S	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01415-C	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01416-S	02/18/98	TNT	NO	0.02	N/A	N/A	mg/kg	0.5	Sample sent off site
SC-01418-S-R	02/22/98	TNT	NO		N/A	N/A	mg/kg	0.2	Sample sent off site
SC-01417-S	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01418-S-R	02/22/98	TNT	NO		N/A	N/A	mg/kg	0.2	Sample sent off site
SC-01418-S	02/18/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01317-S	02/15/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01318-S	02/15/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01319-S	02/15/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01320-S	02/15/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01321-S	02/15/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01322-S	02/15/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01323-S	02/15/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01201-S	02/14/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01208-S	02/14/98	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01211-S	02/14/98	TNT	NO		N/A	N/A	mg/kg	0.5	none

Soil Confirmation Results for CU015

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	
SC-01501-S	02/19/98	U-238	4.77	N/A	N/A	pCi/g		Preliminary	4.77
SC-01502-S	02/19/98	U-238	48.75	N/A	N/A	pCi/g		Preliminary	48.75
SC-01503-S	02/19/98	U-238	5.18	N/A	N/A	pCi/g		Preliminary	5.18
SC-01504-S	02/19/98	U-238	3.29	N/A	N/A	pCi/g		Preliminary	3.29
SC-01504-C	02/19/98	U-238	NO	N/A	N/A	pCi/g	4.09	Preliminary	2.05
SC-01505-S	02/19/98	U-238	43.40	N/A	N/A	pCi/g		Preliminary	43.40
SC-01505-S	02/19/98	U-238	5.52	N/A	N/A	pCi/g		Preliminary	5.52
SC-01507-S	02/19/98	U-238	7.22	N/A	N/A	pCi/g		Preliminary	7.22
SC-01507-C	02/19/98	U-238	ND	N/A	N/A	pCi/g	4.39	Preliminary	2.20
SC-01509-S	02/19/98	U-238	4.53	N/A	N/A	pCi/g		Preliminary	4.53
SC-01509-S	02/19/98	U-238	ND	N/A	N/A	pCi/g	4.29	Preliminary	2.15
SC-01510-S	02/19/98	U-238	3.11	N/A	N/A	pCi/g		Preliminary	3.11
SC-01510-C	02/19/98	U-238	44.75	N/A	N/A	pCi/g		Preliminary	44.75
SC-01511-S	02/19/98	U-238	8.81	N/A	N/A	pCi/g		Preliminary	8.81
SC-01512-S	02/19/98	U-238	5.01	N/A	N/A	pCi/g		Preliminary	5.01
SC-01513-S	02/19/98	U-238	ND	N/A	N/A	pCi/g	3.94	Preliminary	1.97
SC-01514-S	02/19/98	U-238	26.69	N/A	N/A	pCi/g		Preliminary	26.69
SC-01515-S	02/19/98	U-238	22.54	N/A	N/A	pCi/g		Preliminary	22.54
SC-01516-S	02/28/98	U-238	NO	N/A	N/A	pCi/g	2.62	Preliminary	1.31
SC-01517-S	02/28/98	U-238	2.64	N/A	N/A	pCi/g		Preliminary	2.64
SC-01518-S	02/28/98	U-238	NO	N/A	N/A	pCi/g	2.75	Preliminary	1.38
MAXIMUM U-238			48.75						
AVERAGE U-238			11.18						
SC-01401-S	02/15/98	U-238	96.42	N/A	N/A	pCi/g		Preliminary	96.42
SC-01407-S	02/15/98	U-238	112.27	N/A	N/A	pCi/g		Preliminary	112.27
SC-01303-S	02/15/98	U-238	43.84	N/A	N/A	pCi/g		Preliminary	43.84
SC-01310-S	02/15/98	U-238	74.35	N/A	N/A	pCi/g		Preliminary	74.35
SC-01317-S	02/15/98	U-238	68.70	N/A	N/A	pCi/g		Preliminary	68.70
MAXIMUM U-238 AVE.			96.42						
AVERAGE U-238 AVE.			74.35						
									24.27
SC-01501-S	02/19/98	Ra-226	1.24	2.81		pCi/g		Rn not ingrown	2.81
SC-01502-S	02/19/98	Ra-226	1.10	2.50		pCi/g		Rn not ingrown	2.50
SC-01503-S	02/19/98	Ra-226	0.85	1.93		pCi/g		Rn not ingrown	1.93
SC-01504-S	02/19/98	Ra-226	1.00	2.27		pCi/g		Rn not ingrown	2.27
SC-01504-C	02/19/98	Ra-226	0.88	2.22		pCi/g		Rn not ingrown	2.22
SC-01505-S	02/19/98	Ra-226	1.09	2.47		pCi/g		Rn not ingrown	2.47
SC-01506-S	02/19/98	Ra-226	0.98	2.18		pCi/g		Rn not ingrown	2.18
SC-01507-S	02/19/98	Ra-226	1.01	2.29		pCi/g		Rn not ingrown	2.29
SC-01507-C	02/19/98	Ra-226	0.93	2.11		pCi/g		Rn not ingrown	2.11
SC-01508-S	02/19/98	Ra-226	0.85	1.93		pCi/g		Rn not ingrown	1.93
SC-01508-S	02/19/98	Ra-226	0.84	1.91		pCi/g		Rn not ingrown	1.91
SC-01508-S	02/19/98	Ra-226	0.88	1.54		pCi/g		Rn not ingrown	1.54
SC-01510-C	02/19/98	Ra-226	1.09	2.47		pCi/g		Rn not ingrown	2.47
SC-01511-S	02/19/98	Ra-226	0.70	1.59		pCi/g		Rn not ingrown	1.59
SC-01512-S	02/19/98	Ra-226	1.04	2.38		pCi/g		Rn not ingrown	2.38
SC-01513-S	02/19/98	Ra-226	0.89	2.02		pCi/g		Rn not ingrown	2.02
SC-01514-S	02/19/98	Ra-226	0.98	2.22		pCi/g		Rn not ingrown	2.22
SC-01515-S	02/19/98	Ra-226	0.94	2.13		pCi/g		Rn not ingrown	2.13
SC-01516-S	02/28/98	Ra-226	0.78	1.73		pCi/g		Rn not ingrown	1.73
SC-01517-S	02/28/98	Ra-226	0.78	1.73		pCi/g		Rn not ingrown	1.73
SC-01518-S	02/28/98	Ra-226	0.85	1.95		pCi/g		Rn not ingrown	1.95
MAXIMUM Ra-226			1.24						
AVERAGE Ra-226			0.93						
SC-01401-S	02/15/98	Ra-226	1.00	3.27		pCi/g		Rn not ingrown	1.00
SC-01407-S	02/15/98	Ra-226	1.59	3.81		pCi/g		Rn not ingrown	3.81
SC-01303-S	02/15/98	Ra-226	0.92	2.09		pCi/g		Rn not ingrown	0.92
SC-01310-S	02/15/98	Ra-226	1.40	3.18		pCi/g		Rn not ingrown	1.40
SC-01317-S	02/15/98	Ra-226	0.88	2.00		pCi/g		Rn not ingrown	0.88
MAXIMUM Ra-226 AVE.			1.40						
AVERAGE Ra-226 AVE.			0.88						2.01
SC-01501-S	02/19/98	Ra-228	1.49	N/A	N/A	pCi/g			1.49
SC-01502-S	02/19/98	Ra-228	0.96	N/A	N/A	pCi/g			0.96
SC-01503-S	02/19/98	Ra-228	NO	N/A	N/A	pCi/g	1.26		0.63
SC-01504-S	02/19/98	Ra-228	1.20	N/A	N/A	pCi/g			1.20
SC-01504-C	02/19/98	Ra-228	1.08	N/A	N/A	pCi/g			1.08
SC-01505-S	02/19/98	Ra-228	1.63	N/A	N/A	pCi/g			1.63
SC-01506-S	02/19/98	Ra-228	1.31	N/A	N/A	pCi/g			1.31
SC-01507-S	02/19/98	Ra-228	1.35	N/A	N/A	pCi/g			1.35
SC-01507-C	02/19/98	Ra-228	NO	N/A	N/A	pCi/g	1.15		0.58
SC-01508-S	02/19/98	Ra-228	1.07	N/A	N/A	pCi/g			1.07
SC-01508-S	02/19/98	Ra-228	0.90	N/A	N/A	pCi/g			0.90
SC-01510-S	02/19/98	Ra-228	1.24	N/A	N/A	pCi/g			1.24
SC-01510-C	02/19/98	Ra-228	1.04	N/A	N/A	pCi/g			1.04
SC-01511-S	02/19/98	Ra-228	1.12	N/A	N/A	pCi/g			1.12
SC-01512-S	02/19/98	Ra-228	1.06	N/A	N/A	pCi/g			1.06
SC-01513-S	02/19/98	Ra-228	0.96	N/A	N/A	pCi/g			0.96
SC-01514-S	02/19/98	Ra-228	1.30	N/A	N/A	pCi/g			1.30
SC-01515-S	02/19/98	Ra-228	1.19	N/A	N/A	pCi/g			1.19
SC-01516-S	02/28/98	Ra-228	1.14	N/A	N/A	pCi/g			1.14
SC-01517-S	02/28/98	Ra-228	0.68	N/A	N/A	pCi/g			0.68
SC-01518-S	02/28/98	Ra-228	1.08	N/A	N/A	pCi/g			1.08
MAXIMUM Ra-228			1.63						
AVERAGE Ra-228			1.04						
SC-01401-S	02/15/98	Ra-228	1.12	N/A	N/A	pCi/g		Preliminary	1.12
SC-01407-S	02/15/98	Ra-228	1.35	N/A	N/A	pCi/g	0.65	Preliminary	1.35
SC-01303-S	02/15/98	Ra-228	1.06	N/A	N/A	pCi/g		Preliminary	1.06
SC-01310-S	02/15/98	Ra-228	1.28	N/A	N/A	pCi/g		Preliminary	1.28
SC-01317-S	02/15/98	Ra-228	1.25	N/A	N/A	pCi/g		Preliminary	1.25
MAXIMUM Ra-228 AVE.			1.28						
AVERAGE Ra-228 AVE.			1.12						1.12

SC-01501-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01502-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01503-S	02/19/96	TNT		0.07	N/A	N/A	mg/kg	0.5	Sample Sent Offsite
SC-01503-S-R	02/22/96	TNT	NO		N/A	N/A	mg/kg	0.2	Sample Sent Offsite
SC-01504-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01504-C	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01505-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01508-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01507-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01507-C	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01508-B	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01509-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01510-S	02/19/96	TNT	0.06		N/A	N/A	mg/kg	0.5	Sample Sent Offsite
SC-01510-S-R	02/22/96	TNT	NO		N/A	N/A	mg/kg	0.2	Sample Sent Offsite
SC-01510-C	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01511-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01512-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01513-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01514-S	02/19/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01515-S	02/19/96	TNT	0.07		N/A	N/A	mg/kg	0.5	Sample Sent Offsite
SC-01515-S-R	02/22/96	TNT	NO		N/A	N/A	mg/kg	0.2	Sample Sent Offsite
SC-01516-S	02/28/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01517-S	02/28/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01518-S	02/28/96	TNT	NO		N/A	N/A	mg/kg	0.5	None
SC-01509-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01310-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01317-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01401-S	02/15/96	TNT	NO		N/A	N/A	mg/kg	0.5	none
SC-01407-S	02/16/96	TNT	NO		N/A	N/A	mg/kg	0.5	none

Soil Confirmation Results for CU018

WESRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	
SC-01601-S	02/19/96	U-238		9.77	N/A	N/A		Preliminary	9.77
SC-01602-S	02/19/96	U-238		12.25	N/A	N/A		Preliminary	12.25
SC-01603-S	02/19/96	U-238	ND		N/A	N/A	4.66	Preliminary	2.33
SC-01604-S	02/19/96	U-238		12.68	N/A	N/A		Preliminary	12.68
SC-01605-S	02/19/96	U-238	ND		N/A	N/A	2.68	Preliminary	1.44
SC-01606-S	02/19/96	U-238		3.15	N/A	N/A		Preliminary	3.15
SC-01607-S	02/19/96	U-238		5.90	N/A	N/A		Preliminary	5.90
SC-01607-C	02/19/96	U-238		27.23	N/A	N/A		Preliminary	27.23
SC-01608-S	02/19/96	U-238		5.97	N/A	N/A		Preliminary	5.97
SC-01609-S	02/19/96	U-238		5.25	N/A	N/A		Preliminary	5.25
SC-01610-S	02/19/96	U-238		4.15	N/A	N/A		Preliminary	4.15
SC-01610-C	02/19/96	U-238	ND		N/A	N/A	4.38	Preliminary	2.19
SC-01611-S	02/19/96	U-238	ND		N/A	N/A	4.59	Preliminary	2.30
SC-01612-S	02/19/96	U-238		25.72	N/A	N/A		Preliminary	25.72
SC-01612-C	02/19/96	U-238		1.93	N/A	N/A		Preliminary	1.93
SC-01613-S	02/19/96	U-238	ND		N/A	N/A		Preliminary	1.38
SC-01614-S	02/19/96	U-238	ND		N/A	N/A	2.71	Preliminary	2.33
SC-01615-S	02/19/96	U-238		58.71	N/A	N/A		Preliminary	58.71
SC-01616-S	02/19/96	U-238		2.02	N/A	N/A		Preliminary	2.02
SC-01616-C	2/19/96	U-238	ND		N/A	N/A	2.86	Preliminary	1.43
SC-01619-S	02/28/96	U-238	ND		N/A	N/A	2.71	Preliminary	1.36
SC-01620-S	02/19/96	U-238	ND		N/A	N/A	2.82	Preliminary	1.31

MAXIMUM U-238	58.71
AVERAGE U-238	7.94

SC-01501-S	02/19/96	U-238		4.77	N/A	N/A		Preliminary	4.77
SC-01504-S	02/19/96	U-238		3.29	N/A	N/A		Preliminary	3.29
SC-01507-S	02/19/96	U-238		7.22	N/A	N/A		Preliminary	7.22
SC-01510-S	02/19/96	U-238		3.11	N/A	N/A		Preliminary	3.11
SC-01513-S	02/19/96	U-238	ND		N/A	N/A	3.24	Preliminary	1.97
SC-01516-S	02/28/96	U-238	ND		N/A	N/A	2.19	Preliminary	1.06

FINAL U-238 AVE.	7.58
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SC-01601-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01602-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01603-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01604-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01605-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01606-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01607-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01607-C	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01608-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01609-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01610-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01610-C	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01611-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01612-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01612-C	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01613-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01614-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01615-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01616-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01616-C	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01619-S	02/28/96	TNT	ND		N/A	N/A	0.5	None	
SC-01620-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01501-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01504-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01507-S	02/19/96	TNT	ND		N/A	N/A	0.5	Sample Sent Offsite	
SC-01510-S	02/19/96	TNT	0.09		N/A	N/A	0.5	None	
SC-01510-S-R	02/22/96	TNT	ND		N/A	N/A	0.2	Sample Sent Offsite	
SC-01513-S	02/19/96	TNT	ND		N/A	N/A	0.5	None	
SC-01516-S	02/28/96	TNT	ND		N/A	N/A	0.5	None	

Soil Confirmation Results for CU017

WSBRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS		
SC-01701-S	02/22/98	U-238		8.06	N/A	N/A	pCi/g	2.36	Preliminary	8.06
SC-01702-S	02/22/98	U-238	ND	N/A	N/A	pCi/g	2.73	Preliminary		1.37
SC-01703-S	02/20/98	U-238	ND	N/A	N/A	pCi/g	4.29	Preliminary		2.15
SC-01704-S	02/20/98	U-238		4.85	N/A	N/A	pCi/g	2.45	Preliminary	4.85
SC-01704-C	02/20/98	U-238	ND	N/A	N/A	pCi/g	4.02	Preliminary		2.01
SC-01705-S	02/20/98	U-238		5.36	N/A	N/A	pCi/g	4.02	Preliminary	5.36
SC-01705-B	02/20/98	U-238		7.50	N/A	N/A	pCi/g	3.80	Preliminary	7.50
SC-01707-S	02/20/98	U-238		10.70	N/A	N/A	pCi/g	4.83	Preliminary	10.70
SC-01708-S	02/20/98	U-238		2.52	N/A	N/A	pCi/g	2.08	Preliminary	2.52
SC-01708-B	02/20/98	U-238		2.57	N/A	N/A	pCi/g	2.15	Preliminary	2.57
SC-01710-S	02/20/98	U-238		45.99	N/A	N/A	pCi/g	5.99	Preliminary	45.99
SC-01711-S	02/20/98	U-238		9.03	N/A	N/A	pCi/g	2.71	Preliminary	9.03
SC-01712-S	02/20/98	U-238		7.12	N/A	N/A	pCi/g	2.13	Preliminary	7.12
SC-01712-C	02/20/98	U-238		8.71	N/A	N/A	pCi/g	4.56	Preliminary	8.71
SC-01713-S	02/20/98	U-238		12.41	N/A	N/A	pCi/g	2.58	Preliminary	12.41
SC-01713-C	02/20/98	U-238		4.91	N/A	N/A	pCi/g	3.55	Preliminary	4.91
SC-01714-S	02/20/98	U-238		34.55	N/A	N/A	pCi/g	3.82	Preliminary	34.55
SC-01715-S	02/20/98	U-238		5.09	N/A	N/A	pCi/g	1.92	Preliminary	5.09
SC-01716-S	02/20/98	U-238	ND	N/A	N/A	pCi/g	4.49	Preliminary		2.25
SC-01717-S	02/20/98	U-238	ND	N/A	N/A	pCi/g	2.74	Preliminary		1.37
SC-01718-S	02/20/98	U-238	ND	N/A	N/A	pCi/g	2.78	Preliminary		1.39
SC-01719-C	02/28/98	U-238		3.34	N/A	N/A	pCi/g	2.44	Preliminary	3.34
SC-01720-B	02/28/98	U-238		7.88	N/A	N/A	pCi/g	2.38	Preliminary	7.88

MAXIMUM U-238 45.99
AVERAGE U-238 7.88

SC-01801-S	02/19/98	U-238		9.77	N/A	N/A	pCi/g		Preliminary	9.77
SC-01805-S	02/19/98	U-238	ND	N/A	N/A	pCi/g	2.68	Preliminary		1.44
SC-01809-S	02/19/98	U-238		5.25	N/A	N/A	pCi/g		Preliminary	5.25
SC-01813-S	02/19/98	U-238	ND	N/A	N/A	pCi/g	2.71	Preliminary		1.36

FINAL U-238 AVE. 7.73

SC-01701-S	02/22/98	Ra-226		0.95	2.16	pCi/g	0.30	Rn not ingrown		2.16
SC-01703-S	02/20/98	Ra-226		1.02	2.32	pCi/g	0.22	Rn not ingrown		2.32
SC-01707-S	02/20/98	Ra-226		0.88	1.95	pCi/g	0.35	Rn not ingrown		1.95
SC-01711-S	02/20/98	Ra-226		0.94	2.13	pCi/g	0.29	Rn not ingrown		2.13
SC-01715-S	02/20/98	Ra-226		0.92	2.08	pCi/g	0.25	Rn not ingrown		2.08

MAXIMUM Ra-226 2.32
AVERAGE Ra-226 2.13

FINAL Ra-226 AVE. 2.13

SC-01701-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01702-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01703-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01704-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01704-C	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01705-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01705-B	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01707-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01708-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01708-B	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01710-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01711-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01712-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01712-C	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01713-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01713-C	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01714-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01715-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01716-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01717-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01718-S	02/20/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01719-C	02/28/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01720-S	02/28/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01801-S	02/19/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01805-S	02/19/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01809-S	02/19/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		
SC-01813-S	02/19/98	TNT	ND	N/A	N/A	mg/kg	0.5	None		

Soil Confirmation Results for CU01B

WSSRAP_ID	DATE SAMPLED	PARAMETER	CONCENTRATION	EST. FINAL CONC.	FINAL CONC.	UNITS	DL	COMMENTS	
SC-01802-S	02/22/96	U-238	ND	N/A	N/A	pCi/g	4.15	Preliminary	2.08
SC-01803-S	02/22/96	U-238	ND	N/A	N/A	pCi/g	3.77	Preliminary	1.89
SC-01804-S	02/22/96	U-238	4.42	N/A	N/A	pCi/g	2.41	Preliminary	4.42
SC-01805-C	02/22/96	U-238	ND	N/A	N/A	pCi/g	2.70	Preliminary	1.35
SC-01806-S	02/22/96	U-238	ND	N/A	N/A	pCi/g	3.60	Preliminary	1.80
SC-01807-S	02/22/96	U-238	ND	N/A	N/A	pCi/g	2.82	Preliminary	1.41
SC-01808-S	02/20/96	U-238	ND	N/A	N/A	pCi/g	4.45	Preliminary	2.23
SC-01809-C	02/28/96	U-238	ND	N/A	N/A	pCi/g	4.58	Preliminary	2.29
SC-01810-S	02/28/96	U-238	ND	N/A	N/A	pCi/g	2.82	Preliminary	1.41
SC-01811-S	02/20/96	U-238	ND	N/A	N/A	pCi/g	2.73	Preliminary	1.37
SC-01811-C	02/22/96	U-238	4.77	N/A	N/A	pCi/g	2.28	Preliminary	4.77
SC-01812-S	02/20/96	U-238	ND	N/A	N/A	pCi/g	2.97	Preliminary	1.49
SC-01813-C	02/28/96	U-238	ND	N/A	N/A	pCi/g	3.62	Preliminary	1.81
SC-01814-S	02/20/96	U-238	ND	N/A	N/A	pCi/g	4.32	Preliminary	2.16
SC-01815-S	02/20/96	U-238	ND	N/A	N/A	pCi/g	3.09	Preliminary	1.55
SC-01816-S	02/20/96	U-238	5.57	N/A	N/A	pCi/g	4.18	Preliminary	5.57
SC-01816-S	02/28/96	U-238	ND	N/A	N/A	pCi/g	2.70	Preliminary	1.37
SC-01818-C	02/20/96	U-238	2.72	N/A	N/A	pCi/g	1.85	Preliminary	2.72
SC-01819-S	02/28/96	U-238	ND	N/A	N/A	pCi/g	2.97	Preliminary	1.49
SC-01820-S	02/20/96	U-238	4.12	N/A	N/A	pCi/g	3.59	Preliminary	4.12
			MAXIMUM U-238	8.67					
			AVERAGE U-238	1.24					
SC-01701-S	02/22/96	U-238	8.06	N/A	N/A	pCi/g	2.38	Preliminary	8.06
SC-01703-S	02/22/96	U-238	ND	N/A	N/A	pCi/g	4.29	Preliminary	2.15
SC-01707-S	02/22/96	U-238	10.70	N/A	N/A	pCi/g	4.83	Preliminary	10.70
SC-01711-S	02/22/96	U-238	8.03	N/A	N/A	pCi/g	2.71	Preliminary	8.03
SC-01715-S	02/22/96	U-238	5.09	N/A	N/A	pCi/g	1.82	Preliminary	5.09
			MAXIMUM U-238	10.70					
			AVERAGE U-238	5.09					
FINAL U-238 AVE: 3.42									
SC-01802-S	02/22/96	Ra-226	0.98	1.50		pCi/g	0.35	Rn not ingrown	1.50
SC-01803-S	02/22/96	Ra-226	0.95	1.93		pCi/g	0.36	Rn not ingrown	1.89
SC-01804-S	02/22/96	Ra-226	0.87	1.97		pCi/g	0.29	Rn not ingrown	1.97
SC-01805-C	02/22/96	Ra-226	0.78	1.77		pCi/g	0.26	Rn not ingrown	1.77
SC-01806-S	02/22/96	Ra-226	0.78	1.77		pCi/g	0.37	Rn not ingrown	1.77
SC-01807-S	02/22/96	Ra-226	0.80	1.82		pCi/g	0.20	Rn not ingrown	1.82
SC-01808-S	02/20/96	Ra-226	0.75	1.70		pCi/g	0.30	Rn not ingrown	1.70
SC-01809-C	02/28/96	Ra-226	0.98	2.18		pCi/g	0.28	Rn not ingrown	2.18
SC-01810-S	02/28/96	Ra-226	0.89	2.02		pCi/g	0.28	Rn not ingrown	2.02
SC-01811-S	02/20/96	Ra-226	0.82	1.88		pCi/g	0.27	Rn not ingrown	1.88
SC-01811-C	02/22/96	Ra-226	1.06	2.41		pCi/g	0.28	Rn not ingrown	2.41
SC-01812-S	02/20/96	Ra-226	0.93	1.88		pCi/g	0.24	Rn not ingrown	1.88
SC-01813-C	02/28/96	Ra-226	0.88	2.00		pCi/g	0.29	Rn not ingrown	2.00
SC-01814-S	02/20/96	Ra-226	0.97	2.20		pCi/g	0.30	Rn not ingrown	2.20
SC-01815-S	02/20/96	Ra-226	0.61	1.84		pCi/g	0.28	Rn not ingrown	1.84
SC-01816-S	02/20/96	Ra-226	0.88	2.00		pCi/g	0.38	Rn not ingrown	2.00
SC-01816-S	02/28/96	Ra-226	0.85	1.93		pCi/g	0.29	Rn not ingrown	1.93
SC-01816-C	02/20/96	Ra-226	0.83	1.85		pCi/g	0.28	Rn not ingrown	1.88
SC-01819-S	02/28/96	Ra-226	0.94	2.13		pCi/g	0.27	Rn not ingrown	2.13
SC-01820-S	02/20/96	Ra-226	0.94	2.13		pCi/g	0.35	Rn not ingrown	2.13
			MAXIMUM Ra-226	2.41					
			AVERAGE Ra-226	1.85					
SC-01701-S	02/22/96	Ra-226	0.95	2.18		pCi/g	0.30	Rn not ingrown	2.18
SC-01703-S	02/22/96	Ra-226	1.02	2.32		pCi/g	0.22	Rn not ingrown	2.32
SC-01707-S	02/22/96	Ra-226	0.86	1.95		pCi/g	0.35	Rn not ingrown	1.95
SC-01711-S	02/22/96	Ra-226	0.94	2.13		pCi/g	0.29	Rn not ingrown	2.13
SC-01715-S	02/22/96	Ra-226	0.92	2.09		pCi/g	0.25	Rn not ingrown	2.09
			MAXIMUM Ra-226	2.41					
			AVERAGE Ra-226	1.85					
FINAL Ra-226 AVE: 1.98									
SC-01808-S	02/20/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01811-S	02/20/96	TNT	0.07	N/A	N/A	mg/kg	0.5	None	
SC-01811-S-R	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.2	SAMPLE SENT OFFSITE	
SC-01811-C	02/20/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01812-S	02/20/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01814-S	02/20/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01815-S	02/20/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01816-S	02/20/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01816-S	02/28/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01816-C	02/20/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01819-S	02/28/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01820-S	02/20/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01701-S	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01703-S	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01707-S	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01711-S	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	
SC-01715-S	02/22/96	TNT	ND	N/A	N/A	mg/kg	0.5	None	



MORRISON KNUDSEN CORPORATION

MK-FERGUSON GROUP

INTER-OFFICE CORRESPONDENCE

DATE: November 17, 1995
TO: ALARA Committee
FROM: Michelle French/Richard Machado
SUBJECT: RA-226 DETERMINATION FOR SITE CONFIRMATION SAMPLES

Background

The issue surrounding Ra-226 analysis via gamma spectroscopy arises due to the fact that the Ra-226 soil concentration is determined by using the following energy peaks: 295 keV and 352 keV for Pb-214; and 609 keV, 1120 keV, and 1764 keV for Bi-214. These radionuclides are both short-lived daughters of Rn-222. The drying and grinding processes are known to drive off Rn-222 that is trapped in the soil pores and moisture held in the soil. In order to quantitatively identify Ra-226 using gamma spectroscopy, Rn-222 and its short-lived progeny must be allowed to grow into secular equilibrium following such sample preparation techniques. The following alternatives were evaluated for estimating the Ra-226 concentration in soil given gamma spectroscopy analysis within five working days of sample collection.

Alternative 1

Send all samples requiring Ra-226 analysis to an offsite laboratory. At offsite facilities, Ra-226 is typically analyzed through alpha spectroscopy which does not rely on the Ra-222 daughter products to provide a quantitative result. The minimum turnaround time that can be provided for alpha spectroscopy analysis for Ra-226 is four days. At one and two day turnaround times, the method for analysis is modified to use Gas Flow Proportional Counting for total alpha counting yielding a total radium number with no separation of isotopic contributions. Given the four day turnaround time and an estimate of 750 samples (WP-253 and WP-420), the total analytical costs will be \$95,250.

The major disadvantage in this approach is the tight schedule involved with sample collection, packaging, shipping, data receipt, data review, and ALARA committee action. It may be impossible to accomplish this within five working days given the four day turnaround requirement.

11-30-95

Alternative 2

As stated above, the drying and grinding processes are known to drive off radon that is trapped in the soil matrix. However, the amount of radon removed from these processes is not quantified. If you were to assume that all the radon is removed during these processes and the time of final preparation was recorded, a correction factor can be applied based upon the secular equilibrium condition equation. For example, the following table summarizes the ratio of activity of Rn-222 to the activity of Ra-226.

A(Rn-222)/A(Ra-226)	Time Post Canning (Days)
0.167	1
0.306	2
0.422	3
0.665	6
0.807	9
0.888	12
0.935	15
0.963	18
0.978	21
0.987	24
0.993	27
0.996	30

Thus, if the samples were counted three days post canning, a correction factor of 0.422 would be used to determine the estimated final Ra-226 concentration. Given this approach, any concentration determined three days post preparation would be divided by 0.422 to arrive at the final concentration. For a 5 pCi/g ALARA goal, any result above 2.1 pCi/g would be rejected.

The major limitation with this approach is the assumption that the drying and grinding processes remove 100% of the radon. Samples that have been analyzed within one day of preparation have never yielded results much below expected background concentrations (0.8-1.0 pCi/g).

Thus, the use of a correction factor on the order of 0.167 could result in a very conservative approach for estimating the final Ra-226 soil concentration in background soils (in fact all samples analyzed one day after canning would equal or exceed 5 pCi/g).

Alternative 3

All samples that are collected to support confirmation can be analyzed as wet samples to virtually eliminate the radon removal that occurs during sample preparation. However, there are numerous considerations, such as sample homogeneity, particle size, moisture content variability, etc., that can produce error in such analyses. If the samples are analyzed wet, they would also be prepared and analyzed to provide final concentrations for each radionuclide of interest for the sample. This dry evaluation would require an analysis within the confirmation cleanup turnaround period and a second analysis within 20-30 days later to finalize Ra-226 concentrations to an acceptable quality level. This approach would involve three analyses of every sample. The initial wet analysis can be used to estimate the final Ra-226 concentration. However, this estimate must be made on a case by case basis through moisture corrections, etc.

The major limitation for this approach is the reduction in lab productivity as an extra canning effort would be needed to generate a wet and a dry sample for each sample and count time for each sample would increase by a factor of three.

Alternative 4

Over the last several months, the onsite radiological laboratory has been recounting samples that were analyzed during the months of April - September 1995. These reanalyses were done in order to support final analyses of SE Drainage and Quarry characterization samples. The graph on the attached page illustrates a portion of the recount results versus the initial results. The graph includes those samples that had initial Ra-226 results < 5 pCi/g. As illustrated, the background - 2.2 pCi/g sample range had 100% of all sample recounts fall less than 5 pCi/g. For those in the range of 2.2 - 3.2 pCi/g, the likelihood of exceeding 5 pCi/g was approximately 50%. All of the samples with initial results greater than 3.2 pCi/g had final Ra-226 results > 5 pCi/g.

This information can be used to establish a criteria about which samples can be said to meet the ALARA goal of 5 pCi/g within the five working day turnaround window.

Given the current study findings, it is recommended that any sample with an initial Ra-226 result > 2.2 pCi/g be expected to exceed the ALARA goal of 5 pCi/g. In addition, the estimated final Ra-226 soil concentration should be found by multiplying the initial result by 2.27 ($2.2 \text{ pCi/g} \times 2.27 = 5 \text{ pCi/g}$). This correction factor is very close to the maximum increase from initial results to recount results (e.g., 2.56) in the background to 2.2 pCi/g concentration range. The average increase from initial results to recount results for this range was 1.51. However, use of a value closer to the maximum value affords less risk in exceeding expected confirmation goals. The laboratory will work to refine these numbers to further minimize the risk as they continue to recount samples collected over the last few months. The major limitation with this alternative is the potential to over excavate, increasing disposal costs.

Alternative 5

This alternative involves a combination of alternatives 3 and 4. Samples that do not have elevated direct survey results via a 2x2 NaI or a 44-9 survey should be prepared and evaluated in accordance with alternative 4. Samples that do have above background survey results will be analyzed wet and evaluated accordingly to determine the estimated final Ra-226 concentration. The sample will then be prepared and analyzed a second time to provide quality level data for the other radionuclides of interest. In addition, each prepared sample would be analyzed within 30 days after preparation to finalize the Ra-226 concentration to an acceptable quality level.

The major limitation with this approach is the loss in productivity as a result of the double canning needs and increased count times for a portion of the samples.

Recommendation

The Onsite Radiological Laboratory recommends the use of alternative 4. This alternative minimizes risk of failing to meet expected cleanup ALARA goals and provides for maximum efficiency/productivity within the laboratory. The second favorable alternative is number 5. This alternative would increase the workload in the laboratory, but would further reduce the risk of over excavation and failure to meet desired cleanup objectives.

In all of the above alternatives, the estimated final Ra-226 concentration will be used in conjunction with the measured Ra-228 concentration as follows to determine if the mixture rule for the ALARA goals as described in the Record of Decision is achieved.

$$\frac{\text{Est. Final Ra-226 (pCi/g)}}{5 \text{ pCi/g}} + \frac{\text{Ra-228 (pCi/g)}}{5 \text{ pCi/g}} = \text{Mixture Ratio}$$

If mixture ratio ≤ 1 , then the sample meets cleanup confirmation design. If mixture ratio > 1 , then the sample must be considered by the ALARA committee.

MLF/RM/pr

Attachment

Distribution:

Ken Meyer
Steve Warren
Ken Greenwell
Jim Meier

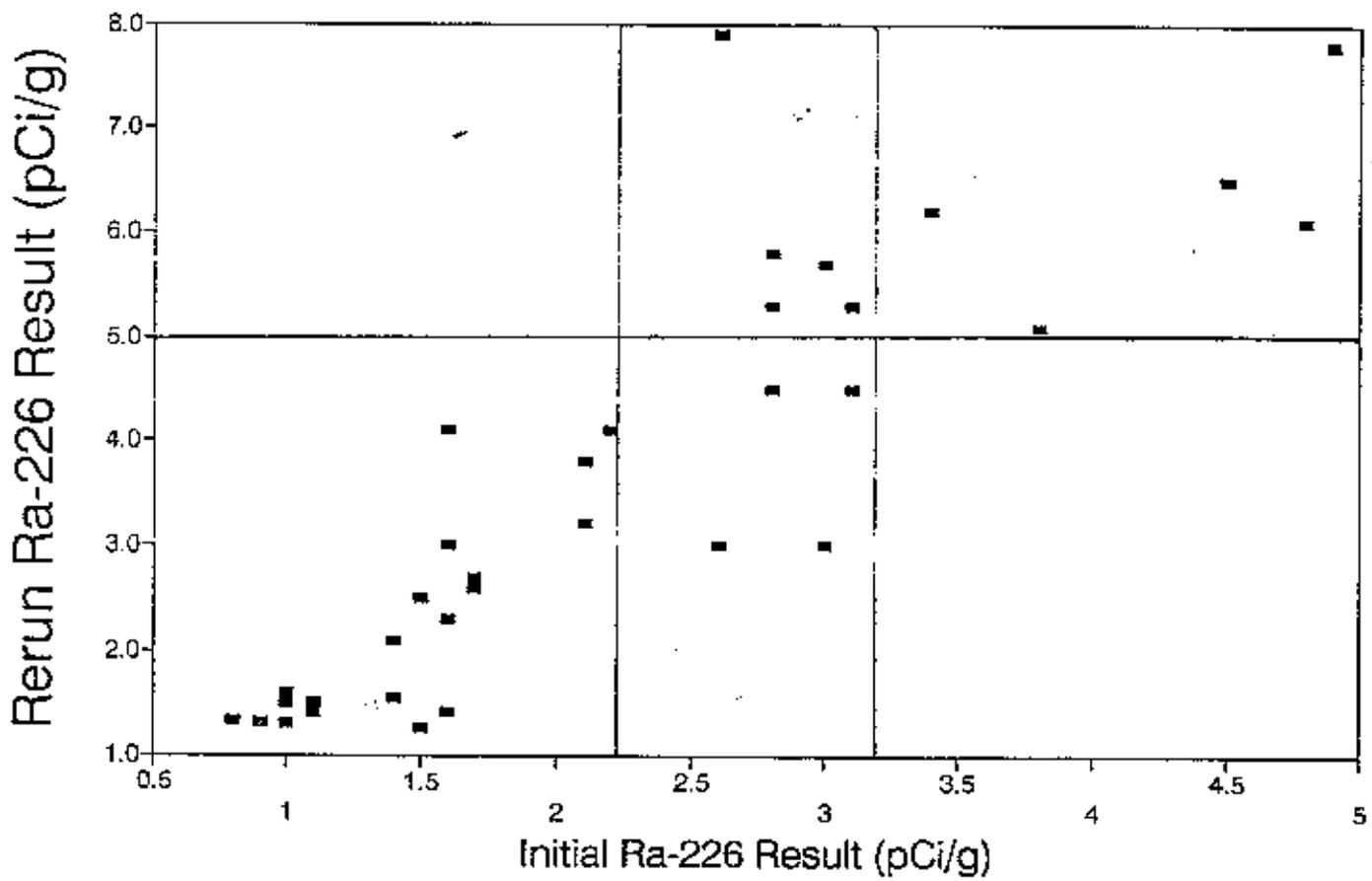
Alternates:

Marj Wesley
Jack Cooney
Dan Hoffman

cc: Melissa Lutz

Ra226 Concentration Range

Background - 5.0 pCi/g



APPENDIX E
QA/QC Analytical Data

WSSRAP_ID	PARAMETER	CONC	ERR	DL	UNITS	%RPD	DER	VAL	QUAL	COMMENTS	MATRIX	DATE SAM
SC-00501-S	RADIUM-226	1.62	0.11	0.38	PC/G	N/A	N/A	*		RN INGROWN	SOIL	12/6/95
SC-00501-S-DU	RADIUM-226	1.37	0.13	0.42	PC/G		16.7	1.0	*	RN INGROWN;%RPD=16.7	SOIL	12/6/95
SC-00501-S-FR	RADIUM-226	1.64	0.11	0.34	PC/G		1.2	0.1	*	RN INGROWN	SOIL	12/6/95
SC-00501-S-EB	RADIUM-226	(0.06)	0.19	0.38	PC/L	N/A	N/A	*			GW	12/6/95
SC-00501-S-FB	RADIUM-226	(0.26)	0.21	0.29	PC/L	N/A	N/A	*			GW	12/6/95
SC-00601-S	RADIUM-226	1.42	0.12	0.34	PC/G	N/A	N/A	*		RN INGROWN	SOIL	12/7/95
SC-00601-S-DU	RADIUM-226	1.76	0.13	0.39	PC/G		21.4	1.4	*	%RPD=21.4	SOIL	12/7/95
SC-00601-S-FR	RADIUM-226	1.55	0.11	0.27	PC/G		8.8	0.6	*	RN INGROWN	SOIL	12/7/95
SC-00601-S-EB	RADIUM-226	0.60	0.29	0.29	PC/L	N/A	N/A	*			GW	12/7/95
SC-00701-S	RADIUM-226	1.61	0.14	0.37	PC/G	N/A	N/A	*		RN INGROWN	SOIL	12/5/95
SC-00701-S-FR	RADIUM-226	1.77	0.11	0.27	PC/G		9.5	0.6	*	RN INGROWN	SOIL	12/5/95
SC-00701-S-EB	RADIUM-226	(0.373)	0.31	0.39	PC/L	N/A	N/A	*			GW	12/5/95
SC-00801-S-EB	RADIUM-226	ND	0.22	0.57	PC/L	N/A	N/A	*			GW	12/1/95
SC-00820-S-EB	RADIUM-226	0.37	0.22	0.27	PC/L	N/A	N/A	*			GW	12/1/95
SC-00904-S	RADIUM-226	1.19	0.11	0.32	PC/G	N/A	N/A	JE		RN INGROWN	SOIL	12/5/95
SC-00904-S-DU	RADIUM-226	1.18	0.10	0.30	PC/G		0.8	0.0	JE	RN INGROWN	SOIL	12/5/95
SC-00904-S-FR	RADIUM-226	1.10	0.11	0.35	PC/G		7.9	0.4	JE	RN INGROWN	SOIL	12/5/95
SC-00904-S-EB	RADIUM-226	(0.202)	0.17	0.24	PC/L	N/A	N/A	*			GW	12/5/95
SC-00923-S	RADIUM-226	1.28	0.12	0.34	PC/G	N/A	N/A	JE		RN INGROWN	SOIL	12/5/95
SC-00923-S-DU	RADIUM-226	1.24	0.11	0.32	PC/G		3.2	0.2	JE	RN INGROWN	SOIL	12/5/95
SC-00923-S-FR	RADIUM-226	1.21	0.10	0.30	PC/G		5.8	0.3	JE	RN INGROWN	SOIL	12/5/95
SC-00923-S-EB	RADIUM-226	(0.041)	0.14	0.27	PC/L	N/A	N/A	*			GW	12/5/95
SC-01003-S	RADIUM-226	1.34	0.13	0.40	PC/G	N/A	N/A	*		RN INGROWN	SOIL	12/7/95
SC-01003-S-DU	RADIUM-226	1.47	0.11	0.30	PC/G		9.3	0.5	*	%RPD=9.3	SOIL	12/7/95
SC-01003-S-FR	RADIUM-226	1.36	0.12	0.39	PC/G		1.5	0.1	*	RN INGROWN	SOIL	12/7/95
SC-01003-S-EB	RADIUM-226	(0.26)	0.27	0.43	PC/L	N/A	N/A	*			GW	12/7/95
SC-01109-S	RADIUM-226	1.19	0.12	0.30	PC/G	N/A	N/A	*		RN INGROWN	SOIL	2/14/96
SC-01109-S-DU	RADIUM-226	1.08	0.12	0.36	PC/G		11.8	0.5	*	RN INGROWN	SOIL	2/14/96
SC-01117-S	RADIUM-226	1.39	0.10	0.38	PC/G	N/A	N/A	*		RN INGROWN	SOIL	2/14/96
SC-01117-S-DU	RADIUM-226	1.29	0.09	0.33	PC/G		7.5	0.5	*	RN INGROWN	SOIL	2/14/96
SC-01504-C	RADIUM-226	1.52	0.13	0.44	PC/G	N/A	N/A	*		RN INGROWN	SOIL	2/19/96
SC-01504-C-DU	RADIUM-226	1.47	0.12	0.31	PC/G		3.3	0.2	*	RN INGROWN	SOIL	2/19/96
SC-01504-C-FR	RADIUM-226	1.75	0.13	0.29	PC/G		14.1	0.9	*	RN INGROWN	SOIL	2/19/96
SC-01512-S	RADIUM-226	1.61	0.10	0.31	PC/G	N/A	N/A	*		RN INGROWN	SOIL	2/19/96
SC-01512-S-DU	RADIUM-226	1.50	0.14	0.33	PC/G		7.1	0.5	*	RN INGROWN	SOIL	2/19/96
SC-01512-S-FR	RADIUM-226	1.51	0.10	0.34	PC/G		6.4	0.5	*	RN INGROWN	SOIL	2/19/96

SC-01703-S	RADIUM-226	1.42	0.12	0.33	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01703-S-DU	RADIUM-226	1.40	0.13	0.39	PCI/G	1.4	0.1	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01703-S-FR	RADIUM-226	1.35	0.10	0.35	PCI/G	5.1	0.3	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01802-S	RADIUM-226	1.44	0.10	0.23	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/22/96
SC-01802-S-DU	RADIUM-226	1.38	0.10	0.32	PCI/G	5.7	0.4	*	CMSA-WP253 - RN INGROWN	SOIL	2/22/96
SC-01802-S-FR	RADIUM-226	1.16	0.11	0.30	PCI/G	21.5	1.3	*	CMSA-WP253 - RN INGROWN	SOIL	2/22/96
SC-01815-S	RADIUM-226	1.22	0.12	0.39	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01815-S-DU	RADIUM-226	1.36	0.12	0.39	PCI/G	10.9	0.6	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01815-S-FR	RADIUM-226	1.56	0.11	0.37	PCI/G	24.5	1.5	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01818-S	RADIUM-226	1.49	0.12	0.31	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/28/96
SC-01818-S-DU	RADIUM-226	1.47	0.12	0.30	PCI/G	1.4	0.1	*	CMSA-WP253 - RN INGROWN	SOIL	2/28/96
SC-01818-S-FR	RADIUM-226	1.50	0.10	0.29	PCI/G	0.7	0.0	*	CMSA-WP253 - RN INGROWN	SOIL	2/28/96
SC-01504-C	RADIUM-226	1.38	0.18	0.47	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01504-C-DU	RADIUM-226	1.24	0.17	0.55	PCI/G	10.7	0.4	*	RN INGROWN	SOIL	2/19/96
SC-01504-C-FR	RADIUM-226	1.51	0.20	0.50	PCI/G	9.0	0.3	*	RN INGROWN	SOIL	2/19/96
SC-01512-S	RADIUM-226	1.59	0.14	0.52	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01512-S-DU	RADIUM-226	1.23	0.16	0.64	PCI/G	25.5	1.2	*	RN INGROWN	SOIL	2/19/96
SC-01512-S-FR	RADIUM-226	1.24	0.13	0.36	PCI/G	24.7	1.3	*	RN INGROWN	SOIL	2/19/96
SC-01818-S	RADIUM-226	0.85	0.17	0.63	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96
SC-01818-S-DU	RADIUM-226	1.04	0.14	0.42	PCI/G	20.1	0.6	*	CMSA-WP253	SOIL	2/28/96
SC-01818-S-FR	RADIUM-226	1.07	0.13	0.49	PCI/G	22.9	0.7	*	CMSA-WP253	SOIL	2/28/96
SC-00601-S-DU	URANIUM-238	ND		4.35	PCI/G	N/A	N/A	*	%RPD=NC	SOIL	12/7/95
SC-00601-S-FR	URANIUM-238	ND		3.91	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	12/7/95
SC-01109-S-DU	URANIUM-238	ND		3.62	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01117-S	URANIUM-238	ND		3.29	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01117-S-DU	URANIUM-238	3.21	0.84	2.25	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01309-S-DU	URANIUM-238	ND		4.19	PCI/G	N/A	N/A	*	CMSA-WP253; %RPD=NC	SOIL	2/15/96
SC-01309-S-FR	URANIUM-238	ND		2.81	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/15/96
SC-01322-S	URANIUM-238	7.25	1.04	2.59	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/15/96
SC-01322-S-DU	URANIUM-238	5.91	0.99	3.00	PCI/G	20.4	0.7	*	CMSA-WP253; %RPD=18.5	SOIL	2/15/96
SC-01418-S	URANIUM-238	4.65	0.84	2.53	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/16/96
SC-01418-S-DU	URANIUM-238	4.80	0.83	2.36	PCI/G	3.2	0.1	*	CMSA-WP253 %RPD=3.1	SOIL	2/16/96
SC-01418-S-FR	URANIUM-238	6.38	1.50	4.71	PCI/G	31.4	0.7	*	CMSA-WP253	SOIL	2/16/96
SC-01504-C-DU	URANIUM-238	ND		3.92	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01504-C-FR	URANIUM-238	ND		4.31	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96

SC-01512-S	URANIUM-238	4.51	0.79	2.15	PC/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96	
SC-01512-S-DU	URANIUM-238	ND		5.08	PC/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96	
SC-01512-S-FR	URANIUM-238	7.18	1.12	3.05	PC/G		45.7	1.4	*	RN INGROWN	SOIL	2/19/96
SC-01602-S	URANIUM-238	12.3	1.90	4.48	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/19/96	
SC-01602-S-FR	URANIUM-238	9.07	0.68	2.35	PC/G		120.1	3.6	*	CMSA-WP253	SOIL	2/19/96
SC-01615-S	URANIUM-238	58.7	5.29	4.78	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/19/96	
SC-01615-S-DU	URANIUM-238	57.9	5.34	3.48	PC/G		1.4	0.1	*	CMSA-WP253 %RPD=1.4	SOIL	2/19/96
SC-01615-S-FR	URANIUM-238	41.4	4.09	4.21	PC/G		34.6	1.8	*	CMSA-WP253	SOIL	2/19/96
SC-01703-S-DU	URANIUM-238	ND		3.84	PC/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96	
SC-01703-S-FR	URANIUM-238	ND		3.02	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96	
SC-01712-C	URANIUM-238	8.71	1.64	4.56	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96	
SC-01712-C-FR	URANIUM-238	11.4	1.81	4.21	PC/G		26.8	0.8	*	CMSA-WP253	SOIL	2/20/96
SC-01712-S-DU	URANIUM-238	6.76	1.05	2.85	PC/G		25.2	0.7	*	CMSA-WP253	SOIL	2/20/96
SC-01802-S-DU	URANIUM-238	ND		3.10	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/22/96	
SC-01802-S-FR	URANIUM-238	ND		3.52	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/22/96	
SC-01815-S	URANIUM-238	ND		4.13	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96	
SC-01815-S-DU	URANIUM-238	(2.35)	0.97	2.93	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96	
SC-01815-S-FR	URANIUM-238	ND		3.34	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96	
SC-01818-S	URANIUM-238	ND		4.14	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96	
SC-01818-S-DU	URANIUM-238	ND		4.02	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96	
SC-01818-S-FR	URANIUM-238	(1.28)	0.73	2.34	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96	
SC-01902-S-DU	URANIUM-238	ND		2.65	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/26/96	
SC-01902-S-FR	URANIUM-238	ND		4.02	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/26/96	
SC-00601-S-EB	URANIUM, TOTAL	(0.380)	0.020	0.51	PC/L	N/A	N/A	*		GW	12/7/95	
SC-00701-S-EB	URANIUM, TOTAL	(0.038)	0.0020	0.53	PC/L	N/A	N/A	*		GW	12/5/95	
SC-01215-S-EB	URANIUM, TOTAL	ND		0.160	PC/L	N/A	N/A	*		GW	2/14/96	
SC-01321-S-EB	URANIUM, TOTAL	ND		0.160	PC/L	N/A	N/A	*		GW	2/15/96	
SC-01401-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/15/96	
SC-01418-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/19/96	
SC-01504-C-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/19/96	
SC-01512-S-EB	URANIUM, TOTAL	0.4		0.075	PC/L	N/A	N/A	*		GW	2/19/96	
SC-01602-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/19/96	
SC-01615-S-EB	URANIUM, TOTAL	0.077		0.075	PC/L	N/A	N/A	*		GW	2/19/96	

SC-01703-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/20/96
SC-01712-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/20/96
SC-01802-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/22/96
SC-01815-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/20/96
SC-01902-S-EB	URANIUM, TOTAL	ND		0.150	PC/L	N/A	N/A	*		GW	2/26/96
SC-00501-S-SD	2,4,6-TRINITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00608-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-00701-S-SD	2,4,6-TRINITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-01302-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/22/96
SC-01504-C-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01512-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01516-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-01602-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01615-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01703-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01712-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01815-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-00501-S-SD	1,3,5-TRINITROBENZENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00608-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-00701-S-SD	1,3,5-TRINITROBENZENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-01302-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/22/96
SC-01504-C-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01512-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01516-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-01602-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01615-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01703-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01712-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01815-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-00501-S-SD	1,3-DINITROBENZENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00608-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-00701-S-SD	1,3-DINITROBENZENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-01302-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/22/96
SC-01504-C-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01512-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01516-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-01602-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01615-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01703-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01712-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01815-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-00501-S-SD	2,4-DINITROTOLUENE	ND		0.29	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00608-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-00701-S-SD	2,4-DINITROTOLUENE	ND		0.22	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-01302-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/22/96

SC-01504-C-SD	2,4-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01512-S-SD	2,4-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01516-S-SD	2,4-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/28/98
SC-01602-S-SD	2,4-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01615-S-SD	2,4-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01703-S-SD	2,4-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-01712-S-SD	2,4-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-01815-S-SD	2,4-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-00501-S-SD	2,6-DINITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00608-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/28/98
SC-00701-S-SD	2,6-DINITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-01302-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/22/98
SC-01504-C-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01512-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01516-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/28/98
SC-01602-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01615-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01703-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-01712-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-01815-S-SD	2,6-DINITROTOLUENE	ND	0.330	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-00501-S-SD	NITROBENZENE (NB)	ND	0.29	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00608-S-SD	NITROBENZENE	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/28/98
SC-00701-S-SD	NITROBENZENE (NB)	ND	0.29	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-01302-S-SD	NITROBENZENE (NB)	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/22/98
SC-01504-C-SD	NITROBENZENE (NB)	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01512-S-SD	NITROBENZENE (NB)	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01516-S-SD	NITROBENZENE	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/28/98
SC-01602-S-SD	NITROBENZENE (NB)	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01615-S-SD	NITROBENZENE (NB)	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/19/98
SC-01703-S-SD	NITROBENZENE (NB)	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-01712-S-SD	NITROBENZENE (NB)	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-01815-S-SD	NITROBENZENE (NB)	ND	0.200	UG/G	N/A	N/A	*		SOIL	2/20/98
SC-00501-S-SD	2-AMINO-4,6-DNT	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	2-AMINO-4,6-DNT	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-00501-S-SD	2-NITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	2-NITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-00501-S-SD	3-NITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	3-NITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-00501-S-SD	4-AMINO-2,6-DNT	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	4-AMINO-2,6-DNT	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-00601-S-SD	4-NITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	4-NITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/5/95

WSSRAP ID	PARAMETER	CONC	ERR	DL	UNITS	%RPD	DER	VAL QUAL	COMMENTS	MATRIX	DATE SAM
SC-00501-S	RADIUM-226	1.62	0.11	0.38	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	12/6/95
SC-00501-S-DU	RADIUM-226	1.97	0.13	0.42	PCI/G	16.7	1.0	*	RN INGROWN;%RPD=16.7	SOIL	12/6/95
SC-00601-S	RADIUM-226	1.42	0.12	0.34	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	12/7/95
SC-00601-S-DU	RADIUM-226	1.76	0.13	0.39	PCI/G	21.4	1.4	*	%RPD=21.4	SOIL	12/7/95
SC-00904-S	RADIUM-226	1.19	0.11	0.32	PCI/G	N/A	N/A	JE	RN INGROWN	SOIL	12/5/95
SC-00904-S-DU	RADIUM-226	1.18	0.10	0.30	PCI/G	0.8	0.0	JE	RN INGROWN	SOIL	12/5/95
SC-00923-S	RADIUM-226	1.28	0.12	0.34	PCI/G	N/A	N/A	JE	RN INGROWN	SOIL	12/5/95
SC-00923-S-DU	RADIUM-226	1.24	0.11	0.32	PCI/G	3.2	0.2	JE	RN INGROWN	SOIL	12/5/95
SC-01003-S	RADIUM-226	1.34	0.13	0.40	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	12/7/95
SC-01003-S-DU	RADIUM-226	1.47	0.11	0.30	PCI/G	9.3	0.5	*	%RPD=9.3	SOIL	12/7/95
SC-01109-S	RADIUM-226	1.19	0.12	0.30	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01109-S-DU	RADIUM-226	1.06	0.12	0.38	PCI/G	11.6	0.5	*	RN INGROWN	SOIL	2/14/96
SC-01117-S	RADIUM-226	1.39	0.10	0.38	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01117-S-DU	RADIUM-226	1.29	0.09	0.33	PCI/G	7.5	0.5	*	RN INGROWN	SOIL	2/14/96
SC-01504-C	RADIUM-226	1.52	0.13	0.44	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01504-C-DU	RADIUM-226	1.47	0.12	0.31	PCI/G	3.3	0.2	*	RN INGROWN	SOIL	2/19/96
SC-01512-S	RADIUM-226	1.61	0.10	0.31	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01512-S-DU	RADIUM-226	1.50	0.14	0.33	PCI/G	7.1	0.5	*	RN INGROWN	SOIL	2/19/96
SC-01703-S	RADIUM-226	1.42	0.12	0.33	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01703-S-DU	RADIUM-226	1.40	0.13	0.39	PCI/G	1.4	0.1	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01802-S	RADIUM-226	1.44	0.10	0.23	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/22/96
SC-01802-S-DU	RADIUM-226	1.36	0.10	0.32	PCI/G	5.7	0.4	*	CMSA-WP253 - RN INGROWN	SOIL	2/22/96
SC-01815-S	RADIUM-226	1.22	0.12	0.39	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01815-S-DU	RADIUM-226	1.36	0.12	0.39	PCI/G	10.9	0.6	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01818-S	RADIUM-226	1.49	0.12	0.31	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/28/96
SC-01818-S-DU	RADIUM-226	1.47	0.12	0.30	PCI/G	1.4	0.1	*	CMSA-WP253 - RN INGROWN	SOIL	2/28/96
SC-01504-C	RADIUM-228	1.38	0.18	0.47	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01504-C-DU	RADIUM-228	1.24	0.17	0.55	PCI/G	10.7	0.4	*	RN INGROWN	SOIL	2/19/96
SC-01512-S	RADIUM-228	1.59	0.14	0.52	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01512-S-DU	RADIUM-228	1.23	0.16	0.64	PCI/G	25.5	1.2	*	RN INGROWN	SOIL	2/19/96

SC-01818-S	RADIUM-228	0.85	0.17	0.63	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96
SC-01818-S-DU	RADIUM-228	1.04	0.14	0.42	PCI/G	20.1	0.6	*	CMSA-WP253	SOIL	2/28/96
SC-00601-S	URANIUM-238	ND		4.21	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	12/7/95
SC-00601-S-DU	URANIUM-238	ND		4.35	PCI/G	N/A	N/A	*	%RPD=NC	SOIL	12/7/95
SC-01109-S	URANIUM-238	ND		4.06	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01109-S-DU	URANIUM-238	ND		3.62	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01117-S	URANIUM-238	ND		3.29	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01117-S-DU	URANIUM-238	3.21	0.84	2.25	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/14/96
SC-01309-S	URANIUM-238	ND		4.03	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/15/96
SC-01309-S-DU	URANIUM-238	ND		4.19	PCI/G	N/A	N/A	*	CMSA-WP253; %RPD=NC	SOIL	2/15/96
SC-01322-S	URANIUM-238	7.25	1.04	2.59	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/15/96
SC-01322-S-DU	URANIUM-238	5.91	0.99	3.00	PCI/G	20.4	0.7	*	CMSA-WP253; %RPD=18.5	SOIL	2/15/96
SC-01418-S	URANIUM-238	4.65	0.84	2.53	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/16/96
SC-01418-S-DU	URANIUM-238	4.80	0.89	2.36	PCI/G	3.2	0.1	*	CMSA-WP253 %RPD=3.1	SOIL	2/16/96
SC-01504-C	URANIUM-238	(1.94)	0.83	2.52	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01504-C-DU	URANIUM-238	ND		3.92	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01512-S	URANIUM-238	4.51	0.79	2.15	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01512-S-DU	URANIUM-238	ND		5.08	PCI/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01615-S	URANIUM-238	58.7	5.29	4.78	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/19/96
SC-01615-S-DU	URANIUM-238	57.9	5.34	3.48	PCI/G	1.4	0.1	*	CMSA-WP253 %RPD=1.4	SOIL	2/19/96
SC-01703-S	URANIUM-238	ND		3.94	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01703-S-DU	URANIUM-238	ND		3.84	PCI/G	N/A	N/A	*	CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01712-C	URANIUM-238	8.71	1.64	4.56	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01712-S-DU	URANIUM-238	6.76	1.05	2.85	PCI/G	25.2	0.7	*	CMSA-WP253	SOIL	2/20/96
SC-01802-S	URANIUM-238	ND		2.89	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/22/96
SC-01802-S-DU	URANIUM-238	ND		3.10	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/22/96
SC-01815-S	URANIUM-238	ND		4.13	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01815-S-DU	URANIUM-238	(2.35)	0.97	2.93	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01818-S	URANIUM-238	ND		4.14	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96
SC-01818-S-DU	URANIUM-238	ND		4.02	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96

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SC-01902-S	URANIUM-238	ND	2.77	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/26/98
SC-01902-S-DU	URANIUM-238	ND	2.65	PCI/G	N/A	N/A	*	CMSA-WP253	SOIL	2/26/98

WSSRAP_ID	PARAMETER	CONC	ERR	DL	UNITS	%RPD	DER	VAL QUAL	COMMENTS	MATRIX	DATE SAM
SC-00501-S-EB	RADIUM-226	(0.06)	0.19	0.38	PC/L	N/A	N/A	*		GW	12/6/96
SC-00501-S-FB	RADIUM-226	(0.25)	0.21	0.29	PC/L	N/A	N/A	*		GW	12/6/96
SC-00601-S-EB	RADIUM-226	0.60	0.29	0.29	PC/L	N/A	N/A	*		GW	12/7/96
SC-00701-S-EB	RADIUM-226	(0.373)	0.31	0.39	PC/L	N/A	N/A	*		GW	12/5/96
SC-00801-S-EB	RADIUM-226	ND	0.22	0.57	PC/L	N/A	N/A	*		GW	12/1/96
SC-00820-S-EB	RADIUM-226	0.37	0.22	0.27	PC/L	N/A	N/A	*		GW	12/1/96
SC-00904-S-EB	RADIUM-226	(0.202)	0.17	0.24	PC/L	N/A	N/A	*		GW	12/5/96
SC-00923-S-EB	RADIUM-226	(0.041)	0.14	0.27	PC/L	N/A	N/A	*		GW	12/5/96
SC-01003-S-EB	RADIUM-226	(0.26)	0.27	0.43	PC/L	N/A	N/A	*		GW	12/7/96
SC-00601-S-EB	URANIUM, TOTAL	(0.380)	0.020	0.51	PC/L	N/A	N/A	*		GW	12/7/96
SC-00701-S-EB	URANIUM, TOTAL	(0.038)	0.0020	0.53	PC/L	N/A	N/A	*		GW	12/5/96
SC-01215-S-EB	URANIUM, TOTAL	ND		0.150	PC/L	N/A	N/A	*		GW	2/14/96
SC-01321-S-EB	URANIUM, TOTAL	ND		0.150	PC/L	N/A	N/A	*		GW	2/15/96
SC-01401-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/15/96
SC-01418-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/19/96
SC-01504-C-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/19/96
SC-01512-S-EB	URANIUM, TOTAL	0.4		0.075	PC/L	N/A	N/A	*		GW	2/19/96
SC-01602-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/19/96
SC-01615-S-EB	URANIUM, TOTAL	0.077		0.075	PC/L	N/A	N/A	*		GW	2/19/96
SC-01703-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/20/96
SC-01712-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/20/96
SC-01802-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/22/96
SC-01815-S-EB	URANIUM, TOTAL	ND		0.075	PC/L	N/A	N/A	*		GW	2/20/96
SC-01802-S-EB	URANIUM, TOTAL	ND		0.150	PC/L	N/A	N/A	*		GW	2/26/96

WSSRAP ID	PARAMETER	CONC	ERR	DL	UNITS	%RPD	DER	VAL	QUAL	COMMENTS	MATRIX	DATE SAM
SC-00501-S	RADIUM-226	1.62	0.11	0.38	PCI/G	N/A	N/A	*		RN INGROWN	SOIL	12/6/95
SC-00501-S-FR	RADIUM-226	1.64	0.11	0.34	PCI/G	1.2	0.1	*		RN INGROWN	SOIL	12/6/95
SC-00601-S	RADIUM-226	1.42	0.12	0.34	PCI/G	N/A	N/A	*		RN INGROWN	SOIL	12/7/95
SC-00601-S-FR	RADIUM-226	1.55	0.11	0.27	PCI/G	8.8	0.6	*		RN INGROWN	SOIL	12/7/95
SC-00701-S	RADIUM-226	1.61	0.14	0.37	PCI/G	N/A	N/A	*		RN INGROWN	SOIL	12/5/95
SC-00701-S-FR	RADIUM-226	1.77	0.11	0.27	PCI/G	9.5	0.6	*		RN INGROWN	SOIL	12/5/95
SC-00904-S	RADIUM-226	1.19	0.11	0.32	PCI/G	N/A	N/A	JE		RN INGROWN	SOIL	12/5/95
SC-00904-S-FR	RADIUM-226	1.10	0.11	0.35	PCI/G	7.9	0.4	JE		RN INGROWN	SOIL	12/5/95
SC-00923-S	RADIUM-226	1.28	0.12	0.34	PCI/G	N/A	N/A	JE		RN INGROWN	SOIL	12/5/95
SC-00923-S-FR	RADIUM-226	1.21	0.10	0.30	PCI/G	5.6	0.3	JE		RN INGROWN	SOIL	12/5/95
SC-01003-S	RADIUM-226	1.34	0.13	0.40	PCI/G	N/A	N/A	*		RN INGROWN	SOIL	12/7/95
SC-01003-S-FR	RADIUM-226	1.36	0.12	0.39	PCI/G	1.5	0.1	*		RN INGROWN	SOIL	12/7/95
SC-01504-C	RADIUM-226	1.52	0.13	0.44	PCI/G	N/A	N/A	*		RN INGROWN	SOIL	2/19/96
SC-01504-C-FR	RADIUM-226	1.75	0.13	0.29	PCI/G	14.1	0.9	*		RN INGROWN	SOIL	2/19/96
SC-01512-S	RADIUM-226	1.61	0.10	0.31	PCI/G	N/A	N/A	*		RN INGROWN	SOIL	2/19/96
SC-01512-S-FR	RADIUM-226	1.51	0.10	0.34	PCI/G	6.4	0.5	*		RN INGROWN	SOIL	2/19/96
SC-01703-S	RADIUM-226	1.42	0.12	0.33	PCI/G	N/A	N/A	*		CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01703-S-FR	RADIUM-226	1.35	0.10	0.35	PCI/G	5.1	0.3	*		CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01802-S	RADIUM-226	1.44	0.10	0.23	PCI/G	N/A	N/A	*		CMSA-WP253 - RN INGROWN	SOIL	2/22/96
SC-01802-S-FR	RADIUM-226	1.16	0.11	0.30	PCI/G	21.5	1.3	*		CMSA-WP253 - RN INGROWN	SOIL	2/22/96
SC-01815-S	RADIUM-226	1.22	0.12	0.39	PCI/G	N/A	N/A	*		CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01815-S-FR	RADIUM-226	1.56	0.11	0.37	PCI/G	24.5	1.5	*		CMSA-WP253 - RN INGROWN	SOIL	2/20/96
SC-01818-S	RADIUM-226	1.49	0.12	0.31	PCI/G	N/A	N/A	*		CMSA-WP253 - RN INGROWN	SOIL	2/28/96
SC-01818-S-FR	RADIUM-226	1.50	0.10	0.29	PCI/G	0.7	0.0	*		CMSA-WP253 - RN INGROWN	SOIL	2/28/96
SC-01504-C	RADIUM-228	1.36	0.18	0.47	PCI/G	N/A	N/A	*		RN INGROWN	SOIL	2/19/96
SC-01504-C-FR	RADIUM-228	1.51	0.20	0.50	PCI/G	9.0	0.3	*		RN INGROWN	SOIL	2/19/96
SC-01512-S	RADIUM-228	1.59	0.14	0.52	PCI/G	N/A	N/A	*		RN INGROWN	SOIL	2/19/96
SC-01512-S-FR	RADIUM-228	1.24	0.13	0.36	PCI/G	24.7	1.3	*		RN INGROWN	SOIL	2/19/96
SC-01818-S	RADIUM-228	0.85	0.17	0.63	PCI/G	N/A	N/A	*		CMSA-WP253	SOIL	2/28/96
SC-01818-S-FR	RADIUM-228	1.07	0.13	0.49	PCI/G	22.9	0.7	*		CMSA-WP253	SOIL	2/28/96

SC-00601-S	URANIUM-238	ND		4.21	PC/G	N/A	N/A	*	RN INGROWN	SOIL	12/7/96
SC-00601-S-FR	URANIUM-238	ND		3.91	PC/G	N/A	N/A	*	RN INGROWN	SOIL	12/7/96
SC-01309-S	URANIUM-238	ND		4.03	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/15/96
SC-01309-S-FR	URANIUM-238	ND		2.81	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/15/96
SC-01418-S	URANIUM-238	4.65	0.84	2.53	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/16/96
SC-01418-S-FR	URANIUM-238	6.38	1.50	4.71	PC/G	31.4	0.7	*	CMSA-WP253	SOIL	2/16/96
SC-01504-C	URANIUM-238	(1.94)	0.83	2.52	PC/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01504-C-FR	URANIUM-238	ND		4.31	PC/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01512-S	URANIUM-238	4.51	0.79	2.15	PC/G	N/A	N/A	*	RN INGROWN	SOIL	2/19/96
SC-01512-S-FR	URANIUM-238	7.18	1.12	3.05	PC/G	45.7	1.4	*	RN INGROWN	SOIL	2/19/96
SC-01802-S	URANIUM-238	12.3	1.90	4.48	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/19/96
SC-01802-S-FR	URANIUM-238	3.07	0.68	2.35	PC/G	120.1	3.6	*	CMSA-WP253	SOIL	2/19/96
SC-01815-S	URANIUM-238	58.7	5.29	4.78	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/19/96
SC-01815-S-FR	URANIUM-238	41.4	4.09	4.21	PC/G	34.6	1.8	*	CMSA-WP253	SOIL	2/19/96
SC-01703-S	URANIUM-238	ND		3.94	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01703-S-FR	URANIUM-238	ND		3.02	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01712-C	URANIUM-238	8.71	1.64	4.56	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01712-C-FR	URANIUM-238	11.4	1.81	4.21	PC/G	26.8	0.8	*	CMSA-WP253	SOIL	2/20/96
SC-01802-S	URANIUM-238	ND		2.89	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/22/96
SC-01802-S-FR	URANIUM-238	ND		3.52	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/22/96
SC-01815-S	URANIUM-238	ND		4.19	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01815-S-FR	URANIUM-238	ND		3.34	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/20/96
SC-01818-S	URANIUM-238	ND		4.14	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96
SC-01818-S-FR	URANIUM-238	(1.26)	0.73	2.34	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/28/96
SC-01902-S	URANIUM-238	ND		2.77	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/26/96
SC-01902-S-FR	URANIUM-238	ND		4.02	PC/G	N/A	N/A	*	CMSA-WP253	SOIL	2/26/96

WSSRAP ID	PARAMETER	CONC	ERR	DL	UNITS	%RPD	DER	VAL	QUAL	COMMENTS	MATRIX	DATE SAM
SC-00501-S-SD	2,4,6-TRINITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*			SOIL	12/5/95
SC-00606-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/28/96
SC-00701-S-SD	2,4,6-TRINITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*			SOIL	12/5/95
SC-01302-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/22/96
SC-01504-C-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01512-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01516-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/28/96
SC-01602-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01615-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01703-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-01712-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-01815-S-SD	2,4,6-TRINITROTOLUENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-00501-S-SD	1,3,5-TRINITROBENZENE	ND		0.28	UG/G	N/A	N/A	*			SOIL	12/5/95
SC-00606-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/28/96
SC-00701-S-SD	1,3,5-TRINITROBENZENE	ND		0.28	UG/G	N/A	N/A	*			SOIL	12/5/95
SC-01302-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/22/96
SC-01504-C-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01512-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01516-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/28/96
SC-01602-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01615-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01703-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-01712-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-01815-S-SD	1,3,5-TRINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-00501-S-SD	1,3-DINITROBENZENE	ND		0.28	UG/G	N/A	N/A	*			SOIL	12/5/95
SC-00606-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/28/96
SC-00701-S-SD	1,3-DINITROBENZENE	ND		0.28	UG/G	N/A	N/A	*			SOIL	12/5/95
SC-01302-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/22/96
SC-01504-C-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01512-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01516-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/28/96
SC-01602-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01615-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/19/96
SC-01703-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-01712-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-01815-S-SD	1,3-DINITROBENZENE	ND		0.200	UG/G	N/A	N/A	*			SOIL	2/20/96
SC-00501-S-SD	2,4-DINITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*			SOIL	12/5/95
SC-00606-S-SD	2,4-DINITROTOLUENE	ND		0.300	UG/G	N/A	N/A	*			SOIL	2/28/96
SC-00701-S-SD	2,4-DINITROTOLUENE	ND		0.22	UG/G	N/A	N/A	*			SOIL	12/5/95
SC-01302-S-SD	2,4-DINITROTOLUENE	ND		0.300	UG/G	N/A	N/A	*			SOIL	2/22/96
SC-01504-C-SD	2,4-DINITROTOLUENE	ND		0.300	UG/G	N/A	N/A	*			SOIL	2/19/96

SC-01512-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01516-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-01602-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01815-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01703-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01712-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01815-S-SD	2,4-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-00501-S-SD	2,6-DINITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00608-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-00701-S-SD	2,6-DINITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-01302-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/22/96
SC-01504-C-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01512-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01516-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-01602-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01615-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01703-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01712-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01815-S-SD	2,6-DINITROTOLUENE	ND		0.330	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-00501-S-SD	NITROBENZENE (NB)	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00608-S-SD	NITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-00701-S-SD	NITROBENZENE (NB)	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-01302-S-SD	NITROBENZENE (NB)	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/22/96
SC-01504-C-SD	NITROBENZENE (NB)	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01512-S-SD	NITROBENZENE (NB)	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01516-S-SD	NITROBENZENE	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/28/96
SC-01602-S-SD	NITROBENZENE (NB)	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01615-S-SD	NITROBENZENE (NB)	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/19/96
SC-01703-S-SD	NITROBENZENE (NB)	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01712-S-SD	NITROBENZENE (NB)	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-01815-S-SD	NITROBENZENE (NB)	ND		0.200	UG/G	N/A	N/A	*		SOIL	2/20/96
SC-00501-S-SD	2-AMINO-4,6-DNT	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	2-AMINO-4,6-DNT	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-00501-S-SD	2-NITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	2-NITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-00501-S-SD	3-NITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	3-NITROTOLUENE	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95
SC-00501-S-SD	4-AMINO-2,6-DNT	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	4-AMINO-2,6-DNT	ND		0.28	UG/G	N/A	N/A	*		SOIL	12/5/95

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SC-00501-S-SD	4-NITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/6/95
SC-00701-S-SD	4-NITROTOLUENE	ND	0.28	UG/G	N/A	N/A	*		SOIL	12/5/95