

**PROJECT SPECIFIC PLAN
FOR SAMPLING OF ADDITIONAL MATERIAL ON THE
WESTERN PORTION OF SOIL PILE AR6-006 (FORMER SP-7)
FOR ENVIROCARE'S WASTE ACCEPTANCE CRITERIA
(SUPPLEMENT TO 20300-PSP-0011)**

DEMOLITION, SOIL AND DISPOSAL PROJECT

**FERNALD CLOSURE PROJECT
FERNALD, OHIO**



OCTOBER 2004

U.S. DEPARTMENT OF ENERGY

**20600-PSP-0010
REVISION A
DRAFT**

5720

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LIST OF ACRONYMS AND ABBREVIATIONS

ALS	Analytical Laboratory Services
ASL	analytical support level
AWWT	Advanced Wastewater Treatment (Facility)
CDL	Certification Design Letter
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COC	constituent of concern
DOE	U.S. Department of Energy
DQO	Data Quality Objective
DSDP	Demolition, Soil and Disposal Project
EMS	Excavation Monitoring System
FACTS	Fernald Analytical Computerized Tracking System
FCP	Fernald Closure Project
FPA	former Production Area
FTF	Fire Training Facility
GC	gas chromatograph
GPS	global positioning system
LAN	Local Area Network
NaI	sodium iodide
OSDF	On-Site Disposal Facility
PID	photoionization detector
PPE	personal protective equipment
ppm	parts per million
PSP	Project Specific Plan
PWID	Project Waste Identification and Disposition Report
QA/QC	Quality Assurance/Quality Control
RTIMP	Real-Time Instrumentation Measurement Program
RWP	Radiological Work Permit
SCQ	Sitewide CERCLA Quality Assurance Project Plan
SED	Sitewide Environmental Database
SEP	Sitewide Excavation Plan
TAL	Target Analyte List
TCLP	Toxicity Characteristic Leaching Procedure
V/FCN	Variance/Field Change Notice
VOC	volatile organic compound
WAC	Waste Acceptance Criteria
WAO	Waste Acceptance Organization
WPP	Waste Pits Project (formerly WPRAP – Waste Pits Remedial Action Project)

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1.0 INTRODUCTION

This project specific plan (PSP) describes additional data collection activities necessary to support the profile characterization for the Envirocare of Utah Waste Acceptance Criteria (WAC) of the soils recently added to the western portion of Soil Pile 7 (SP-7) (See Figure 1-1). SP-7 has recently been redesignated as Soil Pile AR6-006 but for continuity will be referred to as former SP-7 in this document. This sampling will be conducted to supplement data collected as part of a sampling effort in May of 2004 to characterize former SP-7 (20600-PSP-0008, Rev. 0). Since that time additional excavated soil has been added to former SP-7. A portion of this additional soil has been piled on top of the portion that existed at the time of the earlier sampling. Along with soil placed above the former SP-7 soil pile that existed at the time of the previous sampling, further material has been added in the form of another distinct peak of soil to the east of the original pile. The two sections of soil piles have been physically delineated by fencing and the sampling effort described in this plan will apply ONLY to the segregated western portion of former SP-7. The eastern portion of former SP-7 will continue to operate as an active working stockpile for receiving excavated soils, while the western portion has been "frozen" in place, with no new material being added after a final topographic survey was conducted in early October prior to this sampling effort. Figure 1-2 contains the topographical map of the current profile of western former SP-7.

The additional soil in the western portion of former SP-7 will be sampled *in situ* by collecting soil core samples, versus the bin sampling approach used at the Waste Pits Project (WPP) for wastes and soils planned for disposal at Envirocare. This is the same methodology used in the May 2004 sampling of the original, underlying material in this portion of former SP-7. As with the original material, the additional material placed in former SP-7 was excavated from the source areas of 3B, 4B, the abandoned outfall line, as well as smaller volumes of filter cake residue from the Advanced Waste Water Treatment (AWWT) facility and various waste materials from waste management activities placed in the stockpile on the basis of being above the Onsite Disposal Facility (OSDF) WAC.

The general information that is routinely addressed in a PSP can be found in 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation*. While this PSP has section headings similar to a full-length PSP, where the information in the section is identical to the information in the general PSP, 20300-PSP-0011, a reference to this general PSP is made, and the information is not repeated.

1 1.1 PURPOSE & SCOPE

2 The purpose of this PSP is to provide specific direction regarding the sampling and analysis of additional
3 soil materials staged at the western portion of the former SP-7 stockpile to obtain the required density of
4 samples and analytical data to evaluate the soil pile against the Envirocare WAC. The schedule for
5 implementing this PSP is mid-Oct-2004.

6
7 This PSP is not considered a work authorization document (for implementation of fieldwork)
8 per SH-0021, Work Permits. Work authorization documents directing the implementation of fieldwork,
9 per SH-0021, may include applicable Environmental Services procedures, Fluor Fernald work permits,
10 Radiological Work Permit (RWP), penetration permits, and other applicable permits.

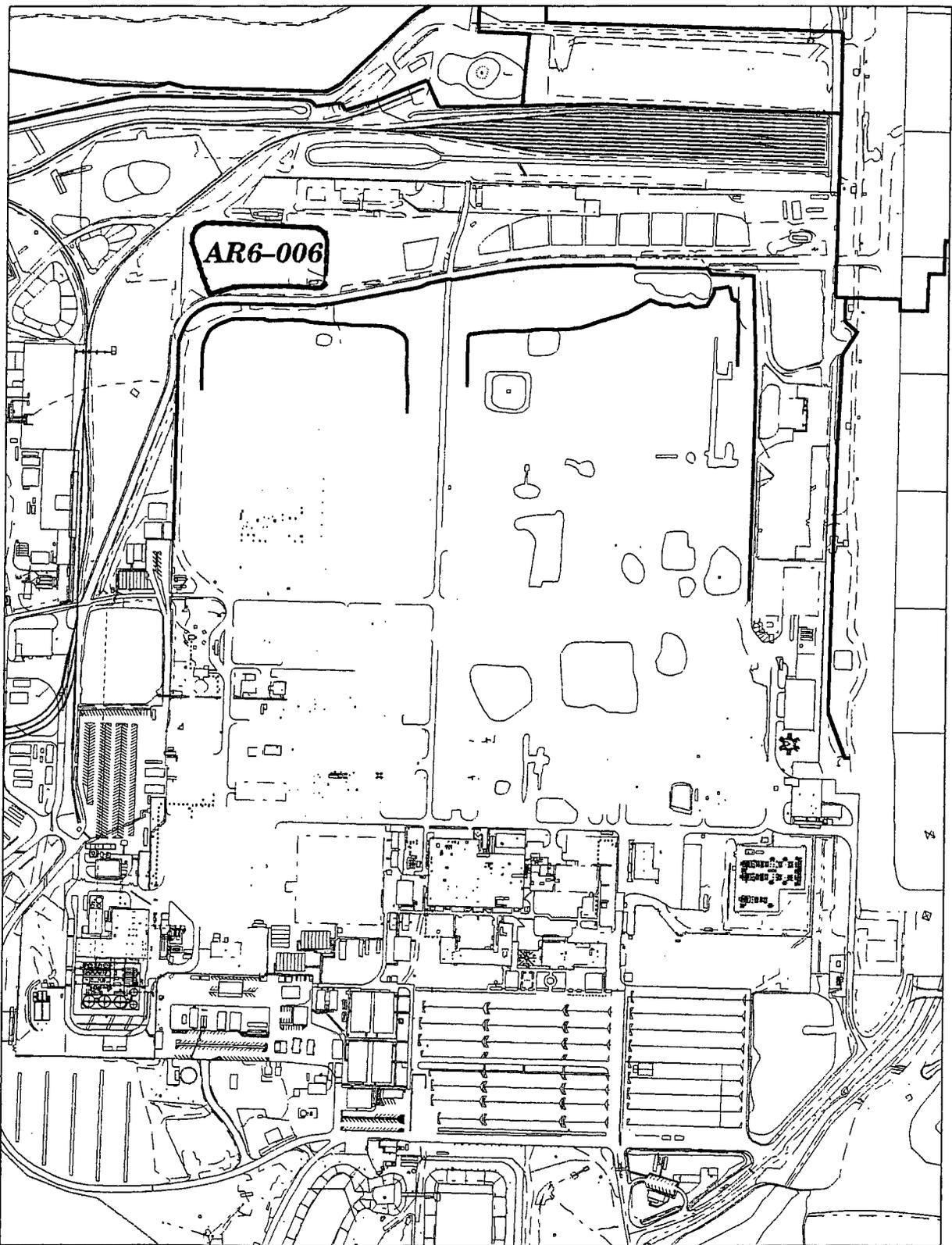
11
12 1.2 VARIANCE/FIELD CHANGE NOTICE (V/FCN) DOCUMENTATION

13 Field conditions may arise that warrant a different decision process for evaluating the additional soil on
14 the western portion of former SP-7 for the Envirocare WAC. Factors that will be considered under
15 special circumstances include safety of the workers, cost effectiveness, the need for a timely response,
16 and impending weather conditions. In the event that a change in the characterization approach is needed,
17 the Characterization Manager or designee must prepare a Variance/Field Change Notice (V/FCN),
18 FS-F-4162. The completed V/FCN must contain the signatures of all affected organizations, which at a
19 minimum includes the Project Manager, Characterization Manager, Waste Acceptance
20 Organization (WAO), and Quality Assurance/Quality Control (QA/QC) but may also include
21 Soil Sampling and/or the Analytical Program Manager, as appropriate. A time-critical variance may be
22 obtained in cases where expedited approval is needed to avoid costly project delays. In the case of a
23 time-critical variance, verbal or written approval (electronic mail is acceptable) must be received from the
24 Characterization Manager and from QA/QC prior to implementing the variance. The completed approved
25 V/FCN form must be completed within seven working days after the time-critical variance is approved.
26 Changes to the PSP will also be noted in the applicable Field Activity Logs.

27
28 If a V/FCN is required, the Characterization Manager will document the change and requirements through
29 the V/FCN process in accordance with Section 7.5 of the Project Specific Plan Guidelines for
30 General Characterization for Sitewide Soil Remediation, 20300-PSP-0011.

31
32 1.3 KEY PERSONNEL

33 Reference Section 1.4 of 20300-PSP-0011, *Project Specific Plan Guidelines for General*
34 *Characterization for Sitewide Soil Remediation*. The WAO lead contact will be Joe Jacoboski for this
35 PSP.



LEGEND:

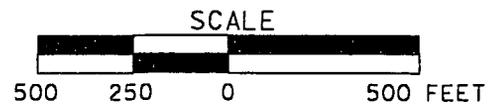
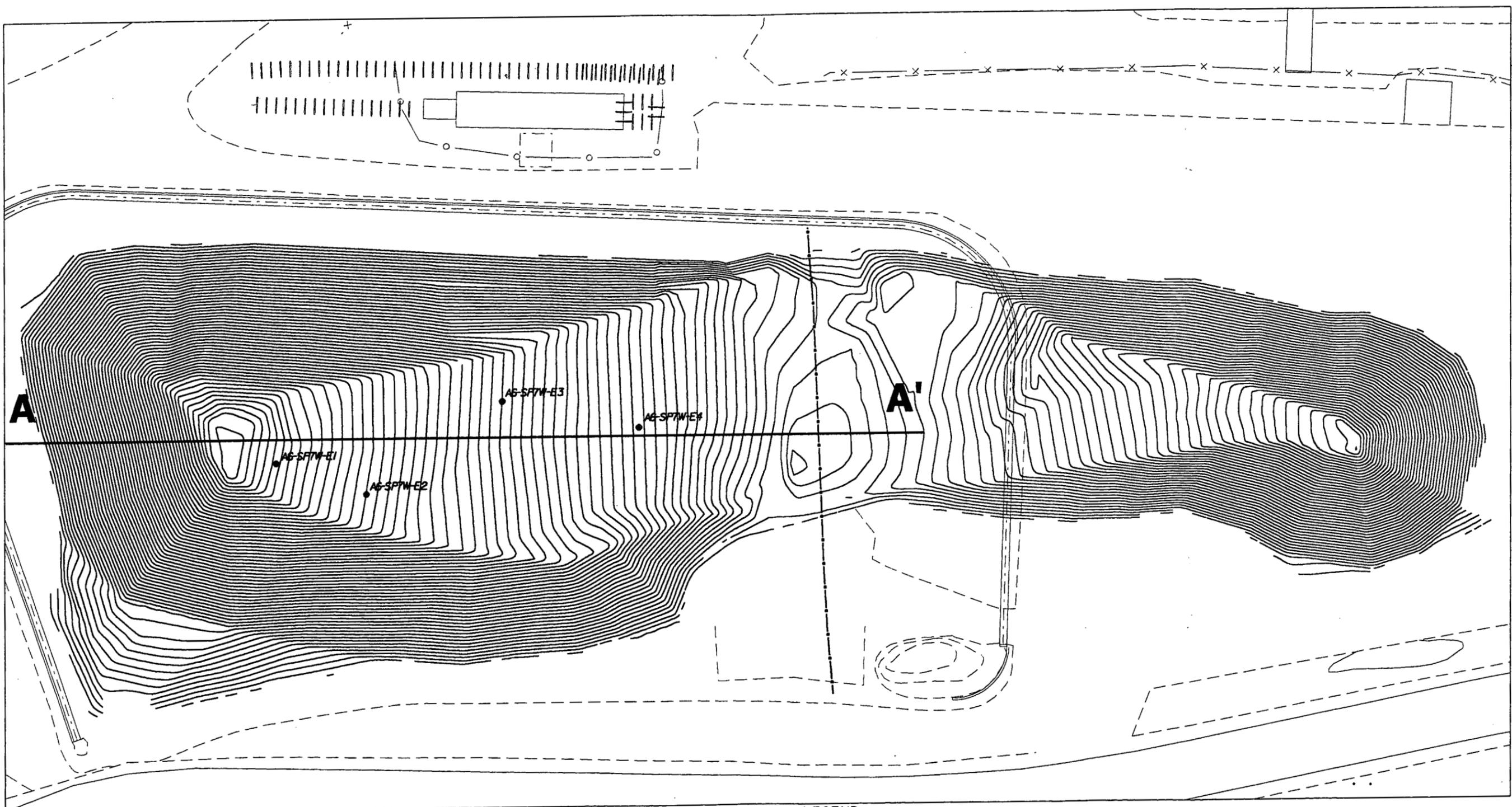


FIGURE 1-1. LOCATION OF AR6-006, FORMER SOIL PILE 7



LEGEND:

- AG-SPTW-E4 ● BORING LOCATION
- SECTION LINE

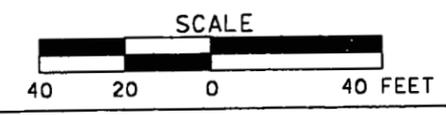


FIGURE 1-2. TOPOGRAPHIC MAP OF AR6-006, FORMER SP-7

2.0 AREA-SPECIFIC WORK

2.1 SOIL PILE 7 BACKGROUND

Soil Pile 7, the stockpile designated for interim storage of above-OSDF WAC soil and debris, lies in Area 6 just north of the Area 3B boundary in the northwest corner of the Former Production Area (FPA). The entire pile consists of materials from throughout the former production area and the abandoned outfall line, as well as filter cake residue from the AWWT and various waste materials from waste management activities characterized as being above the OSDF WAC. Materials have been actively added to the pile since excavation of the Southern Waste Units began in 1999 and material has been removed or emptied from the area several times. Prior to May 2004, the WPP project periodically excavated and hauled material out of former SP-7 for eventual placement in their material handling bins where it was characterized for compliance with the Envirocare WAC before load-out into railcars.

This sampling plan, as well as the one (20600-PSP-0008, Rev. 0) conducted in May 2004, is designed to provide data to support *in-situ* characterization of the material added to the western portion of former SP-7 to meet the Envirocare WAC. This approach will facilitate railcar load-out of former SP-7 material without requiring sampling and analysis (except for certain selected geophysical parameters) of the soil material in the existing railcar load-out facility or prior to the anticipated direct railcar load-out at former SP-7 following scheduled D&D (decontamination and demolition) of the WPP project structures.

This sampling plan will cover sampling and analysis only of the additional soil material added to the now physically segregated "western" portion of former SP-7 since the May, 2004 sampling effort. The material added since then is indicated on Figure 2-1, as determined from topographic surveys. Although the western portion of former SP-7 will no longer receive new soil material, the eastern portion consists exclusively of material added since the May 2004 sampling effort and is a working pile which continues to receive additional excavated material that is above the OSDF WAC.

2.2 FORMER SP-7 WAC ATTAINMENT SAMPLING DESIGN

The sampling activities conducted to evaluate the additional soil material on the western portion of former SP-7 for Envirocare's WAC will be performed under the guidelines of Section 4.0 of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Site-wide Soil Remediation*, which addresses the standard Geoprobe soil core collection and sample handling methods.

1 2.2.1 Determination of WAC COCs

2 Compliance with the Envirocare WAC and the Waste Profile Record established for WPP must be
3 demonstrated for any waste materials shipped from the FCP to Envirocare for disposal. Therefore,
4 WPP's defined list of COCs is applicable to all former SP-7 soil material. Characterization for certain
5 selected geophysical WAC will be based on previous soils placed in former SP-7 that have been
6 processed through WPP and shipped to Envirocare and other geophysical parameters require
7 measurement at the time of shipment.

8
9 The COCs are as follows:

10
11 **Radiological COCs**

- 12
13 • Uranium-234, Uranium-235, Uranium-238, Total Uranium
14 • Radium-226, Radium-228
15 • Thorium-230, Thorium-232
16 • Cesium-137
17 • Americium-241
18 • Neptunium-237
19 • Potassium-40
20 • Technetium-99

21
22 **Chemical COCs**

- 23
24 • PH
25
26 • Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, and Zinc by
27 Toxicity Characteristic Leaching Procedure (TCLP) analysis.
28
29 • Total Polychlorinated Biphenyls (PCBs) (one sample total)
30
31 • If Photoionization Detector (PID) field screening limit of 1,472 ppm is exceeded, then analyze for
32 the TCLP organics list.

33
34 **Geophysical Parameters**

- 35
36 • % Moisture (to be determined from radioanalytical process)

**TABLE 2-1
 PHYSICAL SAMPLE ANALYTICAL REQUIREMENTS**

TAL/Analytes (ASL B)	Sample Matrix	Lab	Preservation	Holding Time	Container Type	Minimum Sample Mass (wet) ¹
TAL A Total Uranium (ppm) U-234 (pCi/g) U-235 (pCi/g) U-238 (pCi/g) % Moisture	Solid	On-site	None	12 months	Appropriate Size Plastic or Glass	100 grams
TAL B Th-230 (pCi/g) Th-232 (pCi/g) Ra-226 (pCi/g) Ra-228 (pCi/g) Cs-137 (pCi/g) Am-241 (pCi/g) Np-237 (pCi/g) K-40 (pCi/g) Technetium-99 (pCi/g) TCLP Metals (mg/L) PH	Solid	Off-site	Cool 4°C (for metals)	12 months 6 months NA	Appropriate Size Plastic or Glass	400 grams
TAL C Total PCBs (mg/kg) 1 sample only	Solid	Off-site	Cool 4°C	14 days	Approp. Size Glass	60g
TAL E VOCs (mg/kg)	Solid	Onsite	Cool to 4° C	14 days	Glass w/Teflon-lined lid. Fill to minimize headspace	1 to 2, 60-mL
TAL F TCLP VOCs (mg/L)	Solid	Offsite	Cool to 4° C	14 days	Glass jar w/Teflon-lined lid. Fill to minimize headspace	1, 60mL (minimum size)
TAL G TCLP SVOC/Pest.s (mg/L)	Solid	Offsite	Cool to 4° C	14 days	1 Glass w/Teflon-lined lid.	200g Fill to minimize headspace
TAL F VOCs (µg/L)	Liquid (trip blank)	Offsite	Cool to 4° C H ₂ SO ₄ to pH<2	14 days	3-40 ml glass w/Teflon-lined lid.	120ml Fill to minimize headspace.

¹One sample per release shipped to an off-site laboratory shall be identified on the Chain of Custody/Request for Analysis forms as "designated for laboratory QC" and will consist of 3-times the volume listed.

1
2 2.2.2 Sampling Design for Envirocare WAC

3 The prescribed sampling density applied to WPP bin sampling is one sample per 600 tons of material
4 (or approximately 400 yds³) based on the *WPRAP (now WPP) Sampling and Analysis Plan for Waste Pit*
5 *Materials, Shaw E&I Project No. 773481 (Revision 1)*. This sampling density was utilized in the
6 sampling design for the May, 2004 characterization effort of former SP-7 and will be used for this
7 sampling and analysis effort as well. The additional volume added to the western portion of former SP-7
8 was calculated to be approximately 4400 yds³ based on a topographic survey conducted on Oct 11, 2004.
9 This volume translates into 11 radiological/metals (TAL A and B) samples and one PCB (TAL C)
10 sample required to align with the sampling density applied to typical WPP wastes since commencement
11 of operations in 1999.

12 Four boring locations are planned for sampling the additional material on western former SP-7 based on
13 the depth and area of material added since the May, 2004 sampling effort, the accessible surface area of
14 the soil pile, the contours and/or pile thickness, and the feasibility of successful collection of the required
15 number of samples in a timely manner without prolonged delays. The four boring locations are
16 approximately evenly spaced across the surface of the pile where additional material has been placed.
17 This design is intended to ensure that the samples collected are as representative as possible given the
18 aforementioned constraints. The method of placement on the pile of the additional material to be sampled
19 has involved spreading each load across the east-west inclined surface in thin layers. Therefore, this
20 sampling design should ensure that the soil borings intercept materials that are representative of the
21 material placed on the western portion of former SP-7 since the last sampling effort.

22
23 Based on four boring locations and the additional material thickness at each, one sample will be collected
24 for every 4 vertical feet through the material to achieve the required 11 samples. However, the entire length
25 of each soil core will be field screened for radiological levels and volatile organics to bias sampling to the
26 areas of maximum field screening results. An interval of four feet allows for the most efficient sampling
27 using the Geoprobe device, since a standard sampling core is four feet long. Because the four sampling
28 location depths are not a precise multiple of four feet, the lowest sample interval will be adjusted longer or
29 shorter to end at the projected interface of previous/additional material. Figure 2-1 illustrates the locations
30 of the four borings along with the depth and number of samples planned from each. The deepest sample
31 interval at locations A6-SP7W-E1 and A6-SP7W-E2 will be 6 feet and the final interval at locations
32 A6-SP7W-E3 and A6-SP7W-E4 will be 5 and 4.5 feet respectively, to conclude the borings at the projected
33 interface of the additional material placed over the material sampled previously.

1 2.2.3 Sampling Strategy

2 Organics Field Screening

3 A PID will be utilized to screen all soil cores for organics to determine if the established WPP Waste
4 Profile limit of 1,472 ppm headspace reading is exceeded on any sample. The headspace screening and
5 follow-on actions will be performed as follows:

- 6 1) Immediately after removal of the plastic core liner, the entire core will be surveyed with a PID.
- 7 2) The highest PID response interval will be placed into an 8 oz. glass container for headspace
8 analysis until it is half full; if there is no PID reading above background, then select a random
9 interval.
- 10 3) Environmental Services Procedure *EQT-04, Photoionization Detector* will be followed for
11 obtaining the level of volatile organics in the headspace with one exception. The minimum time
12 allowed for the sample to set at ambient temperature (>60°F but not in direct sunlight) prior to the
13 insertion of the PID shall be 30 minutes.
- 14 4) If the headspace limit of 1,472 ppm is exceeded, then a lab sample will be collected for selected
15 TCLP organics plus PCBs from the same depth interval via another boring located as close as
16 possible to the initial boring.

17
18 The WPRAP procedure for PID headspace screening has been reviewed and found to be sufficiently
19 comparable to the *EQT-04, Photoionization Detector* procedure.
20
21

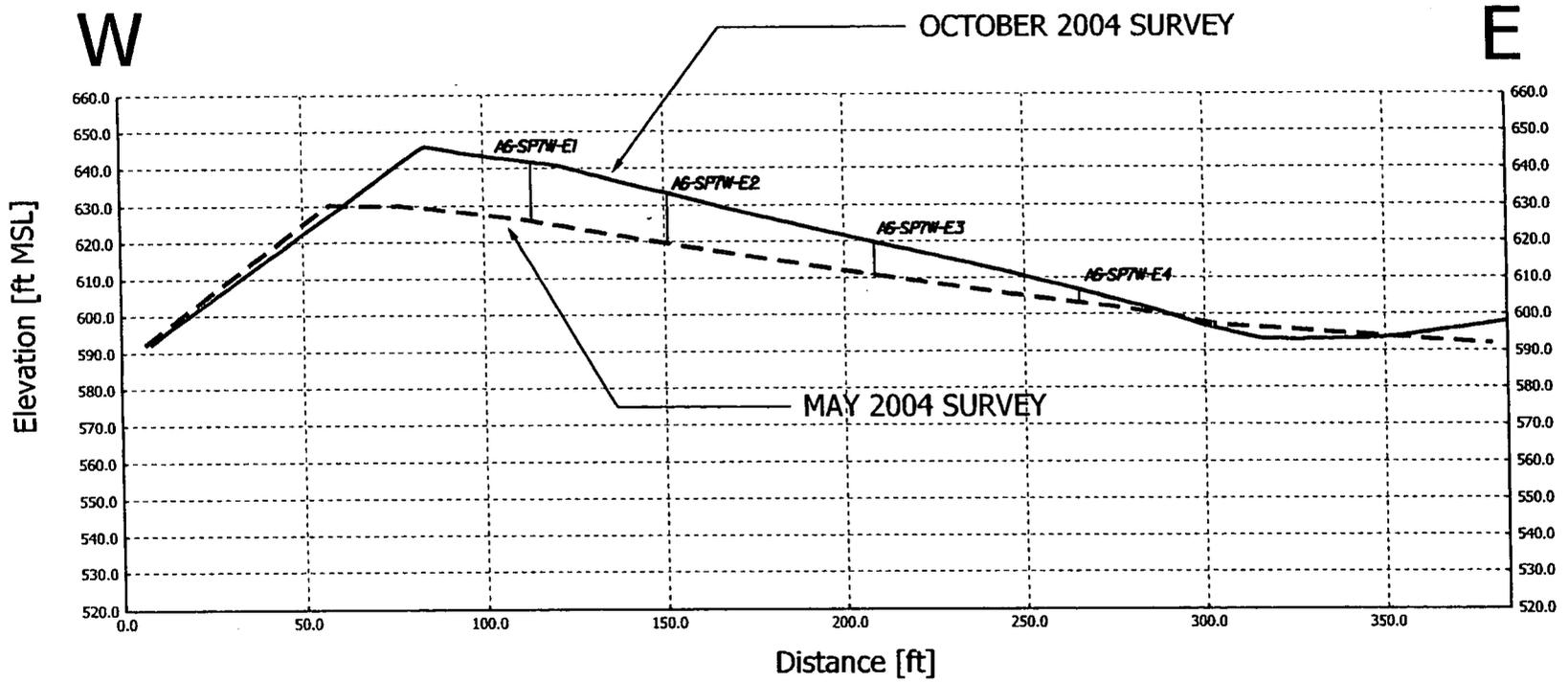
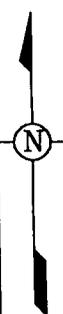
22
23
24 Radiological Field Screening

25 At each of the four soil boring locations, sample selection for radiological and metal analytes will be
26 based solely on the beta/gamma survey meter readings of the soil core. For each sample interval, a
27 radiological and metals sample will be collected from the 1-foot interval (or the length needed to achieve
28 necessary sample mass) having the highest beta/gamma survey reading. Where applicable, the
29 radiological sample should be collected from the section of core having the highest direct reading
30 followed by the metals sample collection. To the extent practical, the beta/gamma survey must be done
31 in a low-background area (e.g., vehicle) to be an effective method of high-biased sample selection. If no
32 above-background levels are detected, then a composite sample will be collected from that interval.
33
34

35 Each boring will be completed to the designated depth below the surface unless refusal due to debris is
36 encountered on repeated attempts. If refusal is encountered during advancement of the boring, at least
37 two additional attempts should be made within fifteen feet of the original boring location and documented
38 in the Field Activity Log. Initial repositioning of the boring location will be done north or south of the
39 refusal location, if at all possible, in order to stay at the approximate same elevation for sample depth
40 planning purposes. If it is necessary to relocate soil borings in excess of fifteen feet from the original
41 location, a V/FCN will be completed to document this change.
42

A
W

A'
E



NO VERTICAL EXAGGERATION

STATE PLANAR COORDINATE SYSTEM 1983
v: #2-fm12*dgn#sp7_007.dgn
13-OCT-2004

LEGEND:

AG-SPTW-E1
|
BORING LOCATION

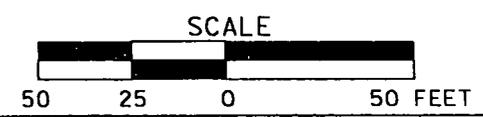


FIGURE 2-1. CROSS-SECTION DEPICTION OF ADDITIONAL MATERIAL ON WESTERN AR6-006, FORMER SP-7

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3.0 INSTRUMENTATION AND TECHNIQUES

No real-time radiological scanning is required under this PSP; therefore, the required subsections for this section per 20300-PSP-0011 are not listed.

4.0 PREDESIGN – FIELD METHODS

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

4.1 REAL-TIME ACTIVITIES

Real-time activities are not applicable to this PSP.

4.2 SAMPLE COLLECTION METHODS

Refer to Section 4.2 of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation*.

4.3 PHYSICAL SAMPLE IDENTIFICATION

Refer to Section 4.3 of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for general physical sample identification guidelines. A detailed description for identifying physical samples specific to Envirocare WAC sampling of former SP-7 follows:

A6-SP7W-E: Sample collected from western portion of Soil Pile 7 for Envirocare WAC Attainment

Location Designator: The Location Designator is a sequential boring number (e.g., 1, 2, etc.). Multiple boreholes at one sample location (due to subsurface refusal) will be identified with A, B, C suffix and so on (e.g., 1A, 1B)

^: The ^ is placed between the location designator and the depth interval. When used, the information to the left of this symbol identifies the boring number and allows the automatic assignment of the boring identification number to be transferred to the appropriate field/table in the Sitewide Environmental Database (SED). The ^ is not used if the sample does not have coordinates such as trip blanks, a “-” is used instead.

1 Depth Interval Designator:

This number indicates the sequential interval of the sample from the soil
2 pile surface. For example, "1" = 0 to 4foot interval, "2" = 4to 8.0 foot
3 interval, and so on, as listed in the Appendix B sample identifiers.

4
5 Analysis Type:

M = metals

6 R = radionuclides

7
8 P = Total PCBs

9
10 L = total VOCs (for trip blank, if required)

11 TB = Trip Blank for VOCs (if organics analysis is required)

12 TL = TCLP VOCs (if required)

13 TS = TCLP SVOCs/Pesticides/Herbicides (if required)

14
15 An example sample ID would be A6-SP7W-E3^2-R, which represents a sample from the second 4-foot
16 interval from boring location #3 to be analyzed for radiological
17 constituents. Appendix B contains the sample identifiers and planar
18 coordinates.
19

7.0 QUALITY ASSURANCE/QUALITY CONTROL REQUIREMENTS

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

7.1 QUALITY CONTROL SAMPLES - REAL-TIME MEASUREMENTS AND PHYSICAL SAMPLES

7.2 DATA VALIDATION

7.2.1 Physical Sample Data Validation

In addition to the requirements in the 20300-PSP-0008 document, each laboratory release will be reported as a full data package to enable the project to validate each release at ASL B.

7.2.2 Real-Time Data Verification/Validation (Not Applicable)

7.3 APPLICABLE DOCUMENTS, METHODS AND STANDARDS

7.4 SURVEILLANCES

7.5 IMPLEMENTATION AND DOCUMENTATION OF VARIANCE/ FIELD CHANGE NOTICES (V/FCN)

8.0 SAFETY AND HEALTH

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

The configuration of the western portion of former SP-7 warrants a discussion of personnel and vehicle safety measures required to be employed during sampling work associated with this PSP. Vehicles and sampling personnel will not perform soil borings within 12 feet of the top surface edge of any part of former SP-7 due to the potential for material slides or personnel falls.

9.0 EQUIPMENT DECONTAMINATION

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

10.0 DISPOSITION OF WASTES

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

11.0 DATA MANAGEMENT

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

11.1 REAL-TIME (NOT APPLICABLE)

11.2 PHYSICAL SAMPLES

APPENDIX A
TARGET ANALYTE LISTS

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TAL A (onsite lab)

Analyte	MDL (soil)
Total Uranium	8.2 mg/kg
Uranium-234	Best Achievable (pCi/g)
Uranium-235	Best Achievable (pCi/g)
Uranium-238	Best Achievable (pCi/g)
Percent Moisture	Per Radiological Method

TAL B (offsite lab)

Analyte	MDL (soil)
Thorium-230	100 pCi/g
Thorium-232	1.0 pCi/g
Radium-226	1.0 pCi/g
Radium-228	1.0pCi/g
Cesium-137	1.0pCi/g
Technetium-99	2.9 pCi/g
Americium-241	1.0 pCi/g
Neptunium-237	1.0 pCi/g
Potassium-40	1.0 pCi/g
TCLP Arsenic	0.5 mg/L
TCLP Barium	10 mg/L
TCLP Cadmium	0.1 mg/L
TCLP Chromium	0.5 mg/L
TCLP Lead	0.5 mg/L
TCLP Mercury	0.02 mg/L
TCLP Selenium	0.1 mg/L
TCLP Silver	0.5 mg/L
TCLP Zinc	1.0 mg/L
PH	NA

TAL C (offsite lab)

Analyte	MDL (soil)
TOTAL PCBs	0.01 mg/kg

TAL E (offsite lab)

Analyte	MDL (mg/kg)
Acetone	*
Benzene	*
Bromodichloromethane	*
Bromoform	*
Bromomethane	*
2-Butanone	*
Carbon Tetrachloride	*
Chlorobenzene	*
Chloroethane	*
Chloroform	*
Chloromethane	*
Dibromochloromethane	*
1,2-Dichlorobenzene	*
1,3-Dichlorobenzene	*
1,4-Dichlorobenzene	*
1,2-Dibromoethane	*
Dichlorodifluoromethane	*
1,1-Dichloroethane	*
1,2-Dichloroethane	*
1,1-Dichloroethene	*
cis-1,2-Dichloroethene	*
trans-1,2-Dichloroethene	*
1,2-Dichloropropane	*
cis-1,3-Dichloropropene	*
trans-1,3-Dichloropropene	*
Ethylbenzene	*
Hexachlorobutadiene	*
2-Hexanone	*
Methylene Chloride	*
Styrene	*
1,1,2,2-Tetrachloroethane	*
Tetrachloroethene	*
Toluene	*
1,2,4-Trichlorobenzene	*
1,1,1-Trichloroethane	*
1,1,2-Trichloroethane	*
Trichloroethene	*
Trichlorofluoromethane	*
1,3,5-Trimethylbenzene	*
1,2,4-Trimethylbenzene	*
Vinyl Chloride	*
m&p-Xylene	*
o-Xylene	*

* Best achievable

TAL F (offsite lab)

Analyte	MDL (mg/L)
1,2-Dichloroethane	0.05
2,4-dinitrotoluene	0.013 *
Benzene	0.05
Carbon Tetrachloride	0.05
Chlorobenzene	10
Chloroform	0.06
1,1-Dichloroethylene	0.07
Methyl ethyl ketone	20
Tetrachlorethylene	0.07
Trichloroethylene	0.05
Vinyl Chloride	0.02

* Best Achievable

TAL G (offsite lab)

Analyte	MDL (mg/L)
2,4,5-trichlorophenol	40
2,4,6-trichlorophenol	0.2
1,4-Dichlorobenzene	0.75
Hexachlorobenzene	0.013 *
Hexachlorobutadiene	0.05
Hexachloroethane	0.3
Methoxychlor	1.0
Nitrobenzene	0.2
Pentachlorophenol	10
o-Cresol	20
m-Cresol	20
p-Cresol	20
Chlorodane	0.003
2,4-D	1
Endrin	0.002
Heptachlor	0.0008
Lindane	0.04
Pyridine	0.5 *
Toxaphene	0.05
2,4,5-TP (Silvex)	0.1

* Best Achievable

APPENDIX B
BORING TABLE FOR ADDITIONAL MATERIAL ON THE
WESTERN PORTION OF FORMER SP-7

Western Former SP-7 Additional Material Borings Table

Boring ID	Depth Interval	Sample ID	TAL	Northing	Easting
A6-SP7W-E1	0-4'	A6-SP7W-E1^1-R	A	481946.61	1348549.85
		A6-SP7W-E1^1-MR	B		
	4-8'	A6-SP7W-E1^2-R	A		
		A6-SP7W-E1^2-MR	B		
	8-12'	A6-SP7W-E1^3-R	A		
		A6-SP7W-E1^3-MR	B		
	12-14.5'	A6-SP7W-E1^4-R	A		
		A6-SP7W-E1^4-MR	B		

Actual sample interval will be smaller; as discussed in Section 2.2.3, the highest beta/gamma field screen interval, typically one foot, will be selected for analysis.

Boring ID	Depth Interval	Sample ID	TAL	Northing	Easting
A6-SP7W-E2	0-4'	A6-SP7W-E2^1-R	A	481933.17	1348599.0
		A6-SP7W-E2^1-MR	B		
	4-8'	A6-SP7W-E2^2-R	A		
		A6-SP7W-E2^2-MR	B		
	8-14'	A6-SP7W-E2^3-R	A		
		A6-SP7W-E2^3-MR	B		

Actual sample interval will be smaller; as discussed in Section 2.2.3, the highest beta/gamma field screen interval, typically one foot, will be selected for analysis.

Boring ID	Depth Interval	Sample ID	TAL	Northing	Easting
A6-SP7W-E3	0-4'	A6-SP7W-E3^1-R	A	481971.73	1348654.95
		A6-SP7W-E3^1-MR	B		
	4-8'	A6-SP7W-E3^2-R	A		
		A6-SP7W-E3^2-MR	B		
	8-13'	A6-SP7W-E3^3-R	A		
		A6-SP7W-E3^3-MR	B		
A6-SP7W-E3^3-P	C				

Actual sample interval will be smaller; as discussed in Section 2.2.3, the highest beta/gamma field screen interval, typically one foot, will be selected for analysis.

Boring ID	Depth Interval	Sample ID	TAL	Northing	Easting
A6-SP7W-E4	0-4.5'	A6-SP7W-E4^1-R	A	481960.11	1348711.79
		A6-SP7W-E4^1-MR	B		

Actual sample interval will be smaller; as discussed in Section 2.2.3, the highest beta/gamma field screen interval, typically one foot, will be selected for analysis.