Department of Energy

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NOV 10 2006

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DOE-0045-07

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Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF THE ADDENDUM TO THE CERTIFICATION REPORT FOR AREA 6 FORMER PRODUCTION AREA AND MAIN DRAINAGE CORRIDOR AREA FOR THE CERTIFICATION OF THE FORMER SOIL PILE-8 AREA

Enclosed for your review is the Addendum to the Certification Report for Area 6 Former Production Area and Main Drainage Corridor Area for the Certification of the Former Soil Pile-8 Area.

If you have any questions or require additional information, please contact me at (513) 648-3139.

Sincerely,

Johnny Reising

Johnny W. Reising
Director

Enclosure

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ADDENDUM TO THE CERTIFICATION REPORT FOR AREA 6 FORMER PRODUCTION AREA AND MAIN DRAINAGE CORRIDOR AREA FOR THE CERTIFICATION OF THE FORMER SOIL PILE-8 AREA

FERNALD CLOSURE PROJECT
FERNALD, OHIO

OCTOBER 2006

U.S. DEPARTMENT OF ENERGY

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ADDENDUM 1

TABLE OF CONTENTS

Page

Executive Summary ES-1

1.0 Introduction 1-1
- 1.1 Purpose 1-1
- 1.2 Scope and Area Description 1-1
- 1.3 Objectives 1-1
- 1.4 Report Format 1-1
- 1.5 FCP Certification Master Map 1-1

2.0 Certification Approach 2-1
- 2.1 Certification Design 2-1
  - 2.1.1 Certification Design for SP-8 CU01 2-1
- 2.2 ASCOCs 2-1
- 2.3 Statistical Analysis 2-1

3.0 Overview of Field Activities 3-1
- 3.1 Precertification Activities 3-1
- 3.2 Certification Activities 3-1

4.0 Analytical Methodologies, Data Validation Processes, and Data Reduction 4-1
- 4.1 Analytical Methodologies 4-1
- 4.2 Data Verification and Validation 4-1
- 4.3 Data Reduction 4-1

5.0 Certification Evaluation and Conclusions 5-1
- 5.1 Certification Results, Issues and Evaluations 5-1
- 5.2 Certification Conclusions 5-1

References R-1

LIST OF TABLES AND FIGURES

Table 2-1 Final ASCOCs for the SP-8 Area
Table 5-1 Statistical Analysis for SP-8 CU01
Figure 1-1 SP-8 Area Footprint
Figure 1-2 FCP Controlled Certification Map
Figure 2-1 SP-8 Area Sub-CU Boundary and Certification Sample Locations

LIST OF ACRONYMS AND ABBREVIATIONS

ASCOC	area-specific constituent of concern
CDL	Certification Design Letter
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CU	certification unit
DOE	U.S. Department of Energy
FPA	Former Production Area
FCP	Fernald Closure Project
FRL	final remediation level
MDC	Main Drainage Corridor
mg/kg	milligrams per kilogram
OSDF	On-Site Disposal Facility
pCi/g	picoCuries per gram
PSP	Project Specific Plan
SCQ	Sitewide CERCLA Quality Assurance Project Plan
SED	Sitewide Environmental Database
SEP	Sitewide Excavation Plan
SP-8	Soil Pile 8
VSL	validation support level

EXECUTIVE SUMMARY

This addendum to the Certification Report for Area 6 Former Production Area (FPA) and Main Drainage Corridor (MDC) Area (DOE 2006a) presents the information and data used by the U.S. Department of Energy (DOE) to determine that existing soil concentrations do not exceed the final remediation levels in the footprint of Soil Pile-8 (SP-8), located just west of the former On-Site Disposal Facility and south of the former railyard. On the basis of this reported information and supporting project files, DOE has determined that no additional remedial actions are required in this area of the site. Upon approval from the regulatory agencies, DOE intends to proceed with future land use activities.

A discussion of previous Area 6 FPA and MDC Area certification efforts and certification criteria are provided in the main report. This addendum focuses on the former SP-8 footprint, which has been remediated and will be considered certified when the U.S. Environmental Protection Agency and the Ohio Environmental Protection Agency agree that the certification criteria have been met.

The certification samples were analyzed at laboratories on the Fernald Closure Project Approved Laboratories List per the Sitewide Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Quality Assurance Project Plan (SCQ, DOE 2003). All these samples were analyzed and reported at the required analytical support level. Analytical data packages included sample results with associated quality assurance/quality control data and all applicable raw data. The data were also subjected to the required validation and verification process, which did not identify any significant quality concerns.

1.0 INTRODUCTION

1.1 PURPOSE

This addendum to the Certification Report for Area 6 Former Production Area (FPA) and Main Drainage Corridor (MDC) Area (DOE 2006a) presents the information and data used by the U.S. Department of Energy (DOE) to determine that existing soil contamination does not exceed the final remediation levels (FRLs) within the footprint of Soil Pile-8 (SP-8) located west of the former On-Site Disposal Facility (OSDF) and south of the former railyard, as shown on Figure 1-1 following SP-8 loadout operation and subsequent remediation. This addendum presents certification results for the certification unit (CU) identified in Addendum 1 to the Certification Design Letter (CDL) and Certification Project Specific Plan (PSP) for Area 6 FPA and MDC Area for the Certification of the Former Soil Pile-8 Area (DOE 2006b).

1.2 SCOPE AND AREA DESCRIPTION

This Certification Report addendum documents certification activities for the footprint of SP-8 that was located north of the former OSDF and south of the former railyard as shown on Figure 1-1.

SP-8 was used to support rail load out activities. Certification of this area is being included in the scope of Area FPA and MDC due to its location being within the scope of that document. Most of the SP-8 footprint was certified under Area 6 FPA and MDC prior to being converted to a rail loadout operation area.

1.3 OBJECTIVES

The objectives of this Certification Report addendum are to:

- Describe the certification approach, field activities and data analyses used to support the certification process for the areas covered in this addendum
- Describe access controls implemented to prevent recontamination.

1.4 REPORT FORMAT

A summary of pertinent information from the three previous certification reports and previous CDLs is provided in the main CDL/Certification PSP (DOE 2006c), along with supporting data. This addendum focuses on information pertaining to the former SP-8 footprint.

1.5 FCP CERTIFICATION MASTER MAP

In order to track certification and characterization for reuse areas at the Fernald Closure Project (FCP), DOE has included a controlled map (Figure 1-2) showing the status of the soil remediation areas and

phased areas with all certification reports and CDLs. Note that this figure has been revised to show the certification status of the CU that encompasses the former SP-8 footprint.

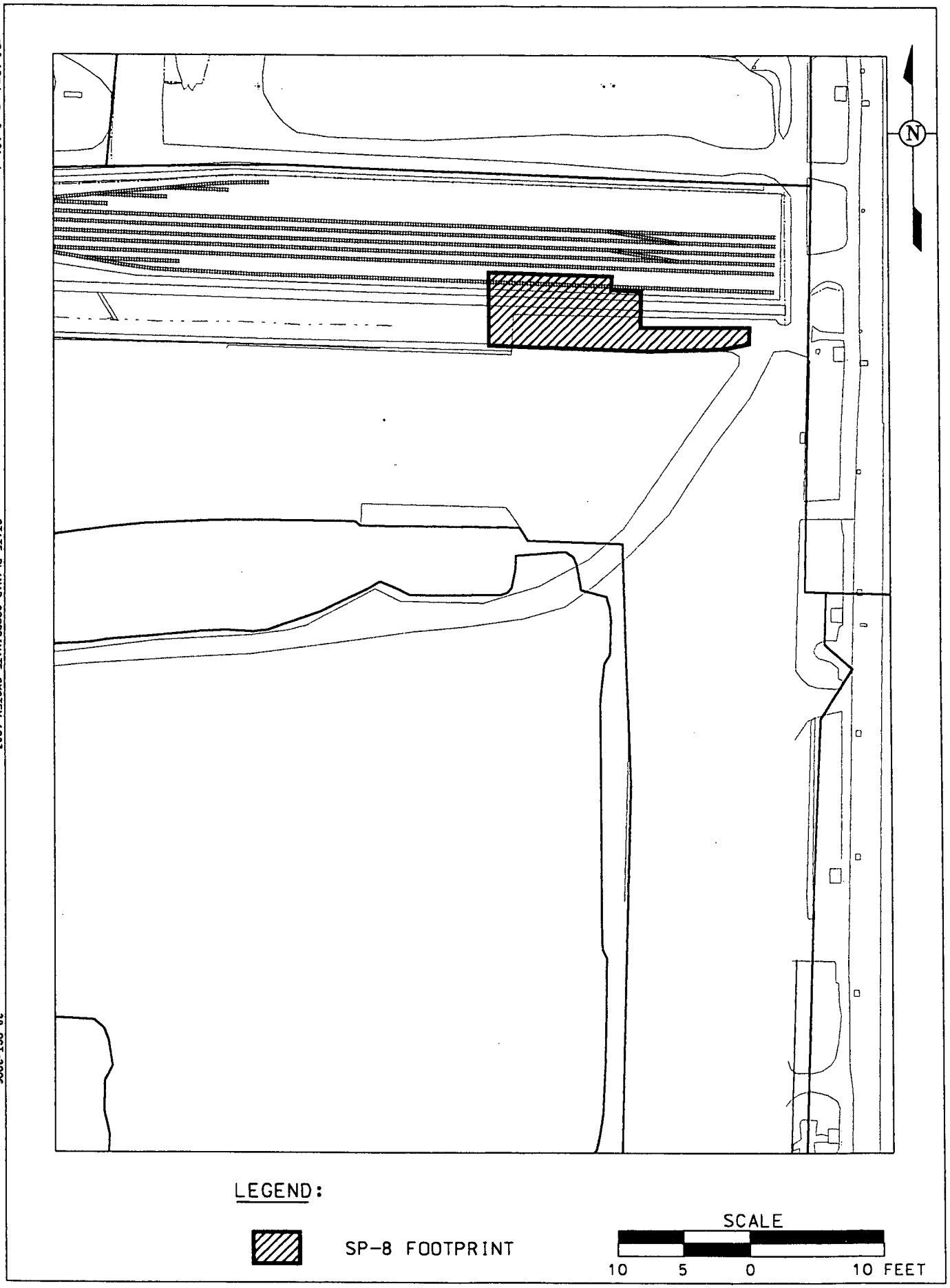
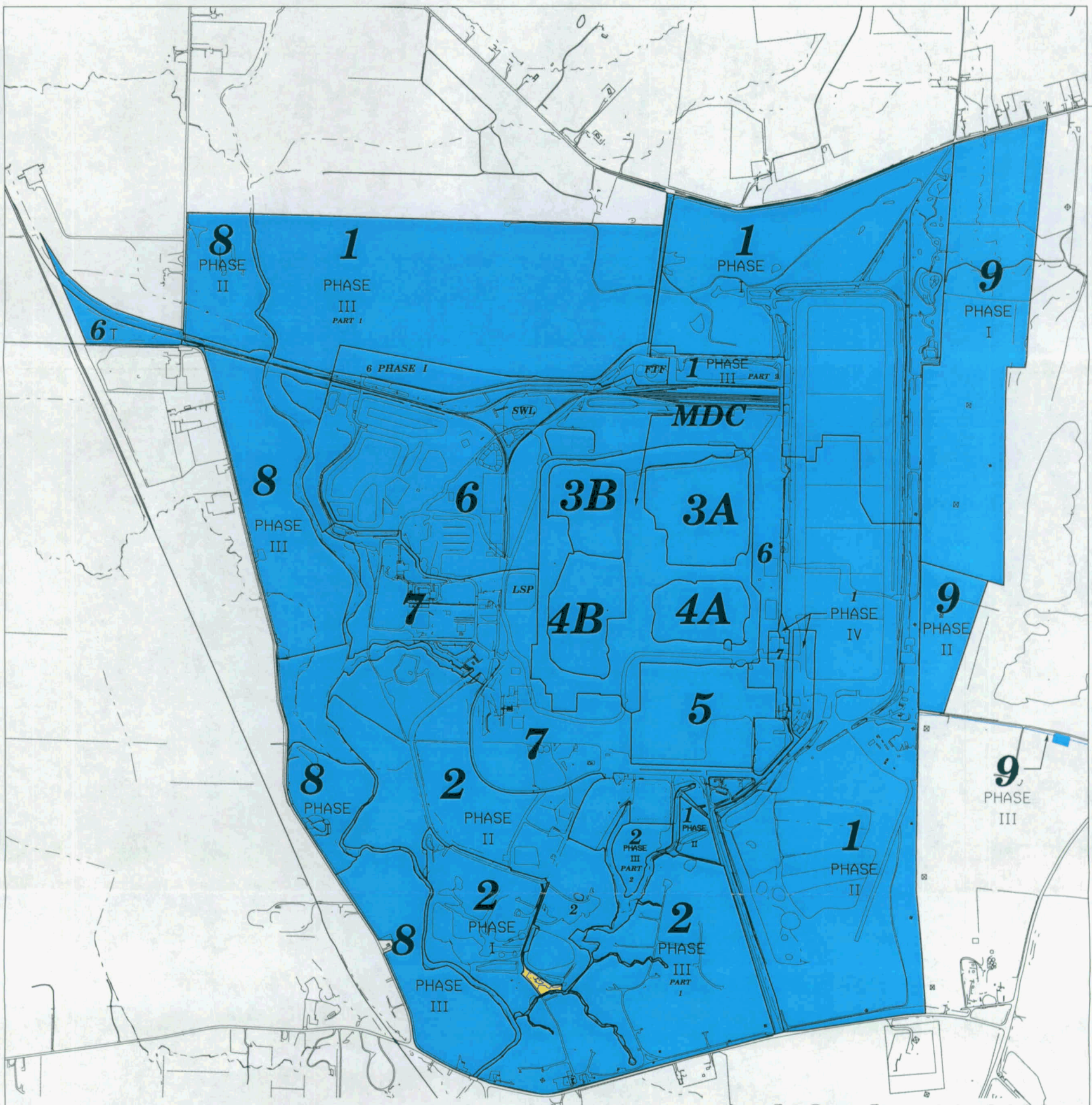


FIGURE 1-1. SP-8 AREA FOOTPRINT



revised October 28, 2006

AREAS	TOTAL ACRES	APPROVED CERT. ACRES	CERT. ACRES IN PROGRESS	REMEDIATION ACRES IN PROGRESS	PREDESIGN ACRES IN PROGRESS	REMAINING ACRES
AREA 1	395.1	395.1	0	0	0	0
AREA 2	173.9	173.9	0	0	0	0
AREA 3A/4A	29.3	29.3	0	0	0	0
AREA 3B/4B	25.4	25.4	0	0	0	0
AREA 5	26.9	26.9	0	0	0	0
AREA 6	149.5	149.5	0	0	0	0
AREA 7	77.0	77.0	0	0	0	0
AREA 8	98.9	98.9	0	0	0	0
MDC	39.8	39.8	0	0	0	0
PR/SSOD/PPDD	33.3	33.3	0	0	0	0
TOTAL ON SITE	1049.2	1049.2	0	0	0	0
AREA 9	85.6	85.6	0	0	0	0
TOTAL OFF SITE	85.6	85.6	0	0	0	0

AREA 10 INCLUDES PIPELINES RELATED TO GROUNDWATER REMEDIATION AND OTHER UTILITIES NOT SPECIFICALLY LISTED.

SCALE

1100 550 0 1100 FEET

FIGURE 1-2. FCP CONTROLLED CERTIFICATION MAP

STATE PLANAR COORDINATE SYSTEM 1983

28-OCT-2006

2.0 CERTIFICATION APPROACH

2.1 CERTIFICATION DESIGN

The certification design for the CDL/Certification PSP addendum, the area-specific constituent of concern (ASCOC) selection process, and statistical analyses are summarized in the CDL/Certification PSP addendum. The general certification strategy is described in Section 3.4 of the Sitewide Excavation Plan (SEP, DOE 1998).

2.1.1 Certification Design for SP-8 CU01

The certification design followed the general approach outlined in Section 3.4 of the SEP. CU01 is a Group 1 CU. The CU design and sample locations are shown on Figure 2-1.

2.2 ASCOCs

The ASCOC selection process for this CU is described in the addendum to the CDL. The ASCOCs are listed in Table 2-1.

2.3 STATISTICAL ANALYSIS

The statistical analysis of certification samples is discussed in Appendix G of the SEP, and specific statistical analyses pertinent to Area 6 FPA and MDC are provided in the main Certification Report.

TABLE 2-1
FINAL ASCOCs FOR THE SP-8 AREA

Primary COCs	Secondary COCs	
Radium-226	Cesium-137	Bromodichloromethane
Radium-228	Neptunium-237	1,1-Dichloroethene
Thorium-228	Lead-210	1,2-Dichloroethene
Thorium-232	Technetium-99	Methylene Chloride
Total Uranium	Thorium-230	Tetrachloroethene
		Toluene
	Antimony	1,1,1-Trichloroethane
	Arsenic	Trichloroethene
	Barium	Xylenes, total
	Beryllium	
	Cadmium	Benzo(a)anthracene
	Chromium	Benzo(a)pyrene
	Lead	Benzo(b)fluoranthene
	Mercury	Benzo(g,h,i)perlene
	Molybdenum	Benzo(k)fluoreanthene
	Selenium	Dibenzo(a,h)anthracene
	Silver	Fluorenanthene
		Chrysene
	Aroclor-1254	Indeno(1,2,3-cd)pyrene
	Aroclor-1260	Phenanthrene
	Dieldrin	Pyrene

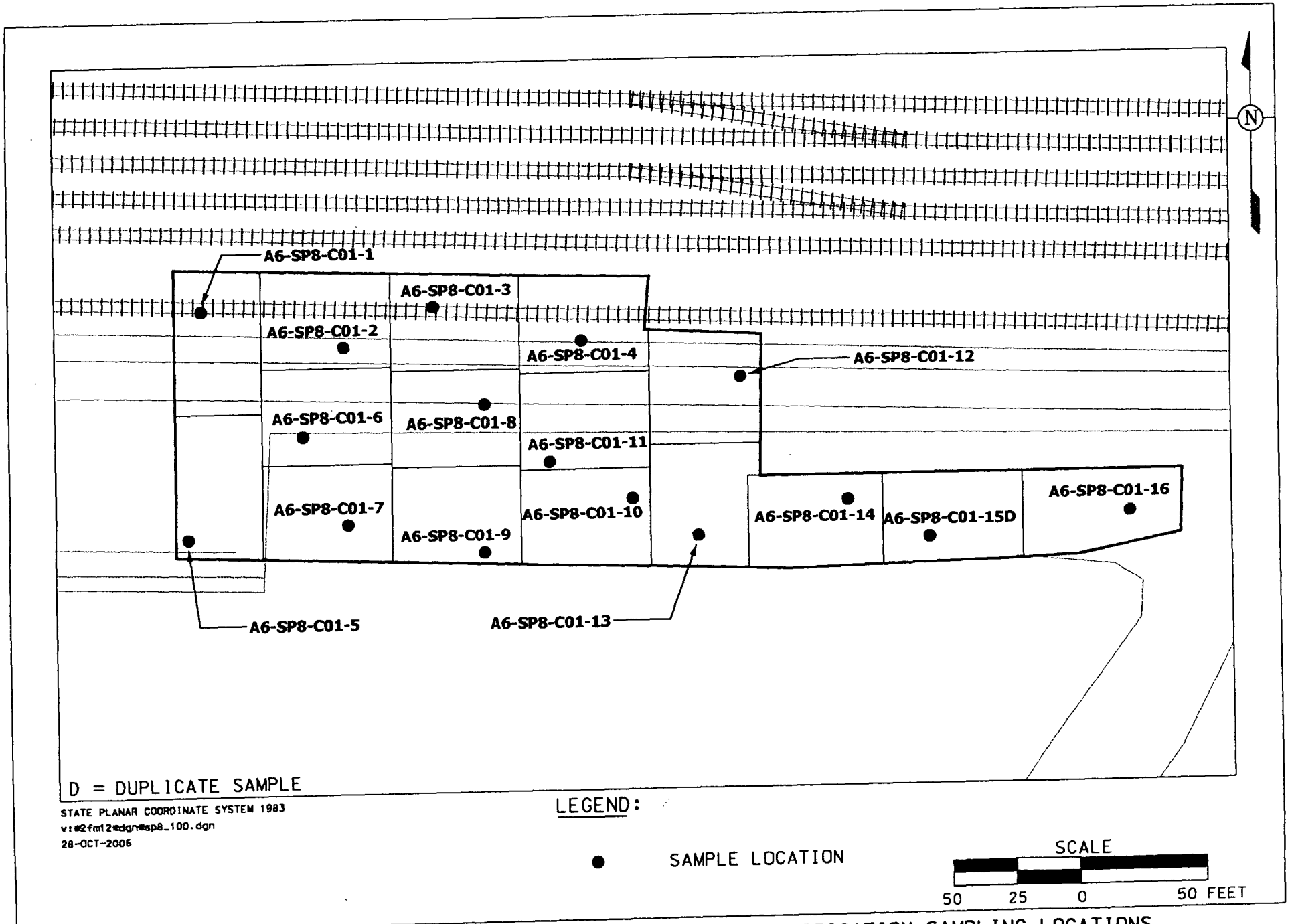


FIGURE 2-1. SP-8 AREA SUB CU BOUNDARY AND CERTIFICATION SAMPLING LOCATIONS

3.0 OVERVIEW OF FIELD ACTIVITIES

This section is limited to information not presented in previous certification reports. The section specifically presents information related to SP-8, as discussed in the addendum to the CDL/Certification PSP for Area 6 FPA and MDC Area.

3.1 PRECERTIFICATION ACTIVITIES

Phase 1 and Phase 2 real-time scans were conducted in the fall of 2006 following completion of the SP-8 operation and subsequent remediation. For the precertification real-time data collected, results showed all total uranium, radium-226, and thorium-232 were below the target levels [three times (3x) FRL for total uranium and thorium-232; seven times (7x) FRL for radium-226]. Based upon results of the real-time scans, it was determined that certification of the soil could be completed.

3.2 CERTIFICATION ACTIVITIES

Certification sampling of CU 01 was completed in October 2006. The sample locations were generated by dividing each CU into 16 approximately equal sub-CUs, then randomly selecting northing and easting coordinates within each sub-CU boundary. Four of the 16 sub-CUs were designated as archive sample locations but samples were collected from all 16 sample locations. The samples were collected from the top 0 to 0.5-foot interval of soil.

4.0 ANALYTICAL METHODOLOGIES, DATA VALIDATION PROCESSES AND DATA REDUCTION

4.1 ANALYTICAL METHODOLOGIES

The analytical methodologies used for SP-8 samples are described in the main Certification Report.

4.2 DATA VERIFICATION AND VALIDATION

For this project, all of the data were reviewed and validated for all criteria noted in the main Certification Report. Per project requirements, a minimum of 10 percent of the certification data were validated to Validation Support Level (VSL) D. This validation included the same review process as for VSL B, but included a systematic review of the raw data and recalculations.

4.3 DATA REDUCTION

Each sample used to support the certification decision was entered in the FCP Sitewide Environmental Database (SED) with field, laboratory and validation information as described in the main Certification Report. Based on this information, the following actions were taken for data reduction of the CU data set.

1. All the data for each CU were queried from the SED. All the data were used even if the CU had more than the minimum required data points
2. The data from the validation fields were used for statistical calculations
3. Data with a qualifier of R or Z was not used in the statistical calculations
4. The highest of the two duplicate results was used in the statistical calculations
5. One half of the non-detect (U or UJ) values were used in the statistical calculations.

5.0 CERTIFICATION EVALUATION AND CONCLUSIONS

5.1 CERTIFICATION RESULTS, ISSUES AND EVALUATIONS

The validated results from CU01 were subjected to statistical analysis as described in the SEP. All results passed certification requirements. Final statistics for this CU are in Table 5-1.

5.2 CERTIFICATION CONCLUSIONS

DOE has determined that the remedial objectives in the Operable Unit 5 Record of Decision (DOE 1996) have been achieved for the SP-8 CU addressed in this addendum, and no further remedial actions are required. Upon U.S. Environmental Protection Agency and Ohio Environmental Protection Agency concurrence, this area will be released for final land use.

TABLE 5-1
STATISTICAL ANALYSIS FOR SP-8 CU01

SAMPLEID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Lead-210	Neptunium-237	Technetium-99
A6-SP8-C01-1	0.756 -	0.765 -	0.756 -	0.765 -	3.68 -	0.048 U	10 UJ	0.0755 U	1.75 U
A6-SP8-C01-2	2.81 J	0.857 -	0.863 -	0.857 -	17.5 -	0.045 U	7.44 U	0.0515 U	1.83 U
A6-SP8-C01-3	0.906 J	0.642 -	0.643 -	0.76 -	4.38 -	0.041 U	1.06 J	0.0779 U	1.94 U
A6-SP8-C01-4	1.99 -	0.817 -	0.815 -	0.817 -	10.3 -	0.057 U	5.45 UJ	0.0743 U	1.88 U
A6-SP8-C01-5	0.78 -	0.71 -	0.75 -	0.71 -	3.01 U	0.0537 U	6.13 U	0.196 J	0.817 U
A6-SP8-C01-6	1.48 -	0.747 -	0.795 -	0.747 -	3.39 U	0.0517 U	6.73 U	0.096 UJ	3.84 -
A6-SP8-C01-7	2.19 -	0.686 -	0.668 -	0.686 -	9.19 -	0.0581 U	6.86 U	0.1 UJ	0.785 U
A6-SP8-C01-8	1.56 -	0.748 -	0.8 -	0.748 -	4.57 J	0.0573 U	6.81 U	0.035 UJ	0.817 U
A6-SP8-C01-9	1.2 -	0.773 -	0.781 -	0.764 -	3.41 U	0.0618 U	7.06 U	0.045 UJ	0.165 U
A6-SP8-C01-10	0.816 -	0.728 -	0.751 -	0.728 -	8.53 J	0.0868 U	7.34 U	0.131 UJ	0.785 U
A6-SP8-C01-11	0.89 -	0.604 -	0.613 -	0.604 -	4.89 -	0.0323 U	7.63 U	0.109 UJ	0.826 U
A6-SP8-C01-12	0.763 -	0.593 -	0.61 -	0.593 -	3.56 U	0.0802 U	6.4 U	0.09 UJ	0.878 U
A6-SP8-C01-13	0.81 -	0.687 -	0.746 -	0.687 -	4.55 J	0.0769 U	7.04 U	0.149 UJ	0.831 U
A6-SP8-C01-14	0.776 -	0.629 -	0.669 -	0.629 -	7.86 -	0.0333 U	6.55 U	0.033 UJ	0.813 U
A6-SP8-C01-15	0.82 -	0.989 -	0.954 -	0.989 -	23.8 -	0.274 -	8.19 U	0.122 UJ	1.51 -
A6-SP8-C01-16	0.856 -	0.94 -	0.9 -	0.94 -	11.7 -	0.0722 -	0.754 U	0.032 UJ	0.778 U
Limit	1.7	1.8	1.7	1.5	82	1.4	38	3.2	30
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	pCi/g	pCi/g
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%
Max. Result	2.81	0 .989	0 .954	0 .989	23.8	0 .274	1.06	0 .196	3.84
Max. > Limit	Yes	No	No	No	No	No	No	No	No
W-statistic Prob. #	< 0.01% (LN)	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	Median (Sign)	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	16	16	16	16	16	16	16	16	16
Nondetects	0	0	0	0	4	14	15	15	14
% Nondetects	0	0%	0%	0%	25%	88%	94%	94%	88%
Est. Mean*	0.873132	- -	- -	- -	- -	- -	- -	- -	- -
UCL	1.47966	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	Pass	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	14	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	Pass	- -	- -	- -	- -	- -	- -	- -	- -

TABLE 5-1
STATISTICAL ANALYSIS FOR SP-8 CU01

SAMPLEID	Thorium-230	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Lead	Mercury
A6-SP8-C01-1	0.871 J	2.17 UJ	4.1 -	65.3 J	0.4 -	0.2 J	14.8 J	9.1 J	0.0057 J
A6-SP8-C01-2	1.57 -	2.5 U	7.1 -	106 J	0.51 -	0.29 J	18.5 J	18 J	0.019 J
A6-SP8-C01-3	1.09 J	2.09 UJ	5.8 -	47 J	0.34 -	0.18 J	12.1 J	8.2 J	0.0095 J
A6-SP8-C01-4	1.89 -	2.07 UJ	7 -	79 J	0.43 -	0.27 J	15.5 J	13 J	0.019 J
A6-SP8-C01-5	1.15 -	0.627 U	5.53 -	68.3 J	0.474 -	0.138 J	11.7 J	9.53 J	0.00577 U
A6-SP8-C01-6	1.41 -	0.472 U	5.29 -	61.8 J	0.448 -	0.158 J	10.7 J	9.83 J	0.0165 J
A6-SP8-C01-7	2.28 -	0.488 U	5.86 -	62.3 J	0.428 -	0.168 J	10.6 J	11.9 J	0.0209 J
A6-SP8-C01-8	2.13 -	0.365 U	5.4 -	62.4 J	0.393 -	0.162 J	9.56 J	9.02 J	0.0123 J
A6-SP8-C01-9	0.869 -	0.399 U	6.3 -	76.9 J	0.541 -	0.164 J	12.2 J	11.1 J	0.012 J
A6-SP8-C01-10	1.07 J	0.448 U	5.06 -	49.5 J	0.412 -	0.143 J	9.14 J	8.46 J	0.0117 J
A6-SP8-C01-11	1.19 -	0.425 U	5.9 -	59.5 J	0.446 -	0.147 J	10.9 J	10.2 J	0.00677 U
A6-SP8-C01-12	0.863 -	0.456 U	5.13 -	84.5 J	0.39 -	0.154 J	9.89 J	8.44 J	0.00683 U
A6-SP8-C01-13	1.2 J	0.458 U	4.02 -	36 J	0.408 -	0.168 J	10.4 J	7.99 J	0.00675 U
A6-SP8-C01-14	0.929 J	0.489 U	4.34 -	48.8 J	0.365 -	0.144 J	9.79 J	7.1 J	0.0066 U
A6-SP8-C01-15	2.31 -	0.558 U	6.26 -	62.6 J	0.527 -	0.189 J	12.1 J	18.8 J	0.0185 J
A6-SP8-C01-16	1.44 J	0.455 U	6.85 -	71 J	0.486 -	0.172 J	11.6 J	11.5 J	0.0107 J
Limit	280	96	12	68000	1.5	82	300	400	7.5
Units	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	2.31	2.5 U	7.1	106	0 .541	0 .29	18.5	18.8	0 .0209
Max. > Limit	No	No	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	16	16	16	16	16	16	16	16	16
Nondetects	16	16	0	0	0	0	0	0	5
% Nondetects	100%	100%	0%	0%	0%	0%	0%	0%	31%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	- -

a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	- -

TABLE 5-1
STATISTICAL ANALYSIS FOR SP-8 CU01

SAMPLEID	Molybdenum	Selenium	Silver	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
A6-SP8-C01-1	1.2 J	0.52 U	0.0416 U	36.4 U	36.4 U	36.4 U	36.4 U
A6-SP8-C01-2	1.5 J	0.519 U	0.063 J	3450 -	2300 -	4110 -	1330 -
A6-SP8-C01-3	1.2 J	0.531 U	0.0425 U	36.6 U	36.6 U	36.6 U	36.6 U
A6-SP8-C01-4	1.4 J	0.533 U	0.05 J	108 -	113 -	175 -	99.3 J
A6-SP8-C01-5	1.83 J	1.96 U	0.145 U	36.5 U	36.5 U	36.5 U	36.5 U
A6-SP8-C01-6	2.02 J	2.02 U	0.15 U	37.1 U	37.1 U	37.1 U	37.1 U
A6-SP8-C01-7	1.61 J	2.1 U	0.155 U	37.5 U	37.5 U	37.5 U	37.5 U
A6-SP8-C01-8	1.62 J	1.57 U	0.116 U	39.2 U	39.2 U	55.3 J	39.2 U
A6-SP8-C01-9	1.8 J	1.71 U	0.127 U	37.7 U	37.7 U	37.7 U	37.7 U
A6-SP8-C01-10	1.66 J	1.92 U	0.142 U	37.2 U	37.2 U	37.2 U	37.2 U
A6-SP8-C01-11	1.91 J	1.83 U	0.135 U	37.6 U	37.6 U	37.6 U	37.6 U
A6-SP8-C01-12	2.19 J	1.93 U	0.143 U	37.9 U	37.9 U	37.9 U	37.9 U
A6-SP8-C01-13	1.73 J	1.97 U	0.145 U	37.5 U	37.5 U	37.5 U	37.5 U
A6-SP8-C01-14	1.38 J	2.1 U	0.155 U	36.1 U	36.1 U	36.1 U	36.1 U
A6-SP8-C01-15	1.09 J	1.77 U	0.131 U	37.4 U	37.4 U	37.4 U	37.4 U
A6-SP8-C01-16	1.49 J	1.95 U	0.144 U	36 U	36 U	36 U	36 U
Limit	2900	5400	29000	20000	2000	20000	1000
Units	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%
Max. Result	2.19	2.1 U	0 .063	3450	2300	4110	1330
Max. > Limit	No	No	No	No	Yes	No	Yes
W-statistic Prob. #	- -	- -	- -	- -	< 0.01% (LN)	- -	< 0.01% (LN)
Test Procedure	- -	- -	- -	- -	Proportions (Sign)	- -	Proportions (Sign)
Sample Size	16	16	16	16	16	16	16
Nondetects	0	16	14	14	14	3	14
% Nondetects	0%	100%	88%	88%	88%	19%	88%
Est. Mean*	- -	- -	- -	- -	18.725	- -	18.725
UCL	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	0.000577086	- -	0.000577086
Pass / Fail	- -	- -	- -	- -	Pass	- -	Pass
a posteriori Sample	- -	- -	- -	- -	6	- -	6
Size calculation	- -	- -	- -	- -	Pass	- -	Pass

TABLE 5-1
STATISTICAL ANALYSIS FOR SP-8 CU01

SAMPLEID	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene
A6-SP8-C01-1	36.4 U	36.4 U	36.4 U	36.4 U	36.4 U	36.4 U	36.4 U
A6-SP8-C01-2	36.2 U	3130 -	36.2 U	6710 -	1430 -	4820 -	4830 -
A6-SP8-C01-3	36.6 U	36.6 U	36.6 U	36.6 U	36.6 U	36.6 U	36.6 U
A6-SP8-C01-4	35.9 U	142 -	35.9 U	207 J	118 -	78.1 J	150 J
A6-SP8-C01-5	36.5 U	36.5 U	36.5 U	36.5 U	36.5 U	36.5 U	36.5 U
A6-SP8-C01-6	37.1 U	37.1 U	37.1 U	37.1 U	37.1 U	37.1 U	37.1 U
A6-SP8-C01-7	37.5 U	37.5 U	37.5 U	37.5 U	37.5 U	37.5 U	37.5 U
A6-SP8-C01-8	39.2 U	46.9 J	39.2 U	83.2 J	67.2 J	60.4 J	60.2 J
A6-SP8-C01-9	37.7 U	37.7 U	37.7 U	37.7 U	37.7 U	37.7 U	37.7 U
A6-SP8-C01-10	37.2 U	37.2 U	37.2 U	37.2 U	58.8 J	37.2 U	37.2 U
A6-SP8-C01-11	37.6 U	37.6 U	37.6 U	37.6 U	37.6 U	37.6 U	37.6 U
A6-SP8-C01-12	37.9 U	37.9 U	37.9 U	37.9 U	37.9 U	37.9 U	37.9 U
A6-SP8-C01-13	37.5 U	37.5 U	37.5 U	37.5 U	37.5 U	37.5 U	37.5 U
A6-SP8-C01-14	36.1 U	36.1 U	36.1 U	36.1 U	36.1 U	36.1 U	36.1 U
A6-SP8-C01-15	37.4 U	37.4 U	37.4 U	37.4 U	37.4 U	37.4 U	37.4 U
A6-SP8-C01-16	36 U	36 U	36 U	36 U	36 U	36 U	36 U
Limit	200000	2000000	2000	10000	20000	5000	10000
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%
Max. Result	36.6 U	3130	36.6 U	6710	1430	4820	4830
Max. > Limit	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -
Sample Size	16	16	16	16	16	16	16
Nondetects	16	13	16	13	12	13	13
% Nondetects	100%	81%	100%	81%	75%	81%	81%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -

TABLE 5-1
STATISTICAL ANALYSIS FOR SP-8 CU01

SAMPLEID	Aroclor-1254	Aroclor-1260	Dieldrin	1,1,1-Trichloroethane	1,1-Dichloroethene	1,2-Dichloroethene (Total)
A6-SP8-C01-1	3.6 U	3.6 U	1.5 U	1.1 U	1.1 U	1.1 U
A6-SP8-C01-2	15 -	7.2 U	1.5 U	1 U	1 U	1 U
A6-SP8-C01-3	3.7 U	3.7 U	1.5 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-4	7.2 U	7.2 U	1.4 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-5	3.7 U	3.7 U	1.5 U	1.1 U	1.1 U	1.1 U
A6-SP8-C01-6	3.7 U	3.7 U	1.5 U	1 U	1 U	1 U
A6-SP8-C01-7	3.8 U	3.8 U	1.5 U	1.2 U	1.2 U	1.2 U
A6-SP8-C01-8	3.9 U	3.9 U	1.6 U	1 U	1 U	1 U
A6-SP8-C01-9	3.8 U	3.8 U	1.5 U	1 U	1 U	1 U
A6-SP8-C01-10	8.2 J	4.3 J	1.5 U	1.8 U	1.8 U	1.8 U
A6-SP8-C01-11	3.8 U	3.8 U	1.5 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-12	3.8 U	3.8 U	1.5 U	1 U	1 U	1 U
A6-SP8-C01-13	3.8 U	3.8 U	1.5 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-14	3.6 U	3.6 U	1.4 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-15	4 J	3.7 U	1.5 U	1 U	1 U	1 U
A6-SP8-C01-16	3.6 U	3.6 U	1.4 U	1.1 U	1.1 U	1.1 U
Limit	130	130	15	4300	410	160
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%
Max. Result	15	7.2 U	1.5 U	1.8 U	1.8 U	1.8 U
Max. > Limit	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -
Sample Size	16	16	16	16	16	16
Nondetects	13	15	16	16	16	16
% Nondetects	81%	94%	100%	100%	100%	100%
Est. Mean*	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -

a posteriori Sample	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -

TABLE 5-1
STATISTICAL ANALYSIS FOR SP-8 CU01

SAMPLEID	Bromodichloromethane	Methylene chloride	Tetrachloroethene	Toluene	Trichloroethene	Xylenes, Total
A6-SP8-C01-1	1.1 U	5.6 U	1.1 U	1.1 J	1.1 U	1.1 U
A6-SP8-C01-2	1 U	5.1 U	1 U	1 U	1 U	1 U
A6-SP8-C01-3	0.9 U	4.4 U	0.9 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-4	0.9 U	4.6 U	0.9 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-5	1.1 U	5.4 U	1.1 U	1.1 U	1.1 U	1.1 U
A6-SP8-C01-6	1 U	5.1 U	1 U	1 U	1 U	1 U
A6-SP8-C01-7	1.2 U	5.7 U	1.2 U	1.2 U	1.2 U	1.2 U
A6-SP8-C01-8	1 U	5.1 U	1 U	1 U	1 U	1 U
A6-SP8-C01-9	1 U	4.8 U	1 U	1 U	1 U	1 U
A6-SP8-C01-10	1.8 U	9.2 U	1.8 U	1.8 U	1.8 U	1.8 U
A6-SP8-C01-11	0.9 U	4.3 U	0.9 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-12	1 U	4.8 U	1 U	1 U	1 U	1 U
A6-SP8-C01-13	0.9 U	4.7 U	0.9 U	1 J	0.9 U	0.9 U
A6-SP8-C01-14	0.9 U	4.5 U	0.9 U	0.9 U	0.9 U	0.9 U
A6-SP8-C01-15	1 U	5.1 U	1 U	1.2 J	1 U	1 U
A6-SP8-C01-16	1.1 U	5.6 U	1.1 U	1.1 U	1.1 U	1.1 U
Limit	4000	37000	3600	100000000	25000	920000000
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%
Max. Result	1.8 U	9.2 U	1.8 U	1.2	1.8 U	1.8 U
Max. > Limit	No	No	No	No	No	No
W-statistic Prob. #	--	--	--	--	--	--
Test Procedure	--	--	--	--	--	--
Sample Size	16	16	16	16	16	16
Nondetects	16	16	16	13	16	16
% Nondetects	100%	100%	100%	81%	100%	100%
Est. Mean*	--	--	--	--	--	--
UCL	--	--	--	--	--	--
Prob. > Limit	--	--	--	--	--	--
Pass / Fail	--	--	--	--	--	--

a posteriori Sample	--	--	--	--	--	--
Size calculation	--	--	--	--	--	--

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