

32212-001

03.07.01.0004

APPENDIX P-2

COMPLETE ANALYTICAL RESULTS

Appendix P-2 Electronic Deliverable

Introduction

The analytical and locational information databases utilized in this report are contained in the enclosed CD-ROM device. This electronic dissemination effort is part of the NAS Jacksonville partnering team's paperless information initiative, and these files should be utilized without printing at the receiving end whenever possible to achieve this environmental goal. A hardcopy printout of these databases can be found in the Wesconnett Public Library.

These read-only database files represents the best possible source for these documents. The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical and analytical data delivered herewith under Contract No. N62467-89-D-0317/040 are complete and accurate and comply with all requirements of this contract.

For comments on this distribution process or to receive an alternative electronic media, please contact:

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Contents

The directory structure of this electronic deliverable are as follows:

\README.TXT	This contains the full text of this file, in ASCII format
\PDOXWIN\JAXOU1.DB	Analytical database, NAS Jacksonville OUI, Paradox 5.0 for Windows 3.1 format
\PDOXWIN\OU1LOC.DB	Location database, NAS Jacksonville OUI, Paradox 5.0 for Windows 3.1 format
\ACCESS\JAXOU1.MDB	Analytical database, NAS Jacksonville OUI, Microsoft Access 2.0 for Windows 3.1 format
\ACCESS\OU1LOC.MDB	Location database, NAS Jacksonville OUI, Microsoft Access 2.0 for Windows 3.1 format
\dBASE\JAXOU1.DBF	Analytical database, NAS Jacksonville OUI, dBase IV format
\dBASE\OU1LOC.DBF	Location database, NAS Jacksonville OUI, dBase IV format

[Note: The relational link to the analytical and locational databases is provided by the SAMP_ID and LOCATION_ID fields].

Structure of the Analytical Database

<u>Field Name</u>	<u>(Type/Length)</u>
GROUP	Chemical group (A16)
SAMP_ID	Sample identifier (A20)
LOCATION_ID	Location identifier (A20)
PARAMETER	Chemical name (A30)
RESULT	Chemical concentration (N)
QUAL	Validation qualifier (A10)
UNITS	Analytical units (A10)
SDATE	Collection Date (D)
MED	Sampled Media (A2)
LAB_ID	Laboratory identifier (A12)

Structure of the Location Database

SAMP_ID	Sample identifier (A20)
LOCATION_ID	Location identifier (A20)
X_COOR	Easting Coordinate, Transverse Mercator, NAD 1983
Y_COOR	Northing Coordinate, NGVD 1929
TOP_BLS	Top of well screen
BOT_BLS	Bottom of well screen
MATRIX	Sample media
COMMENT	Field program comments
SAMPLE_BK	Background sample
SURVEYOR	Surveyor Name

APPENDIX P-3
PARCC REPORTS

**PRECISION, ACCURACY, REPRESENTATIVENESS,
COMPARABILITY, AND COMPLETENESS FOR
REMEDIAL INVESTIGATION/FEASIBILITY STUDY ROUND 2
FOR OPERABLE UNIT NO. 1 (OU1) OF THE
NAVAL AIR STATION JACKSONVILLE, FLORIDA**

**NAVAL AIR STATION
JACKSONVILLE, FLORIDA**

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December 1993

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Comparability, and Completeness
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1.0 INTRODUCTION

Prior to evaluating the data for precision, accuracy, representativeness, comparability, and completeness (PARCC) criteria the laboratory reviewed the data package and the data also was independently reviewed and validated using the Naval Energy and Environmental and Support Activity (NEESA) guidance document 20.2-047B (1988) entitled, Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Program. Before the laboratory released the chemical analytical results, both the sample and laboratory QC data were carefully reviewed in order to verify sample identity, instrument calibration, detection limits, dilution factors, numerical computations, accuracy of transcriptions, and chemical interpretations. Additionally, the QC data were reduced and spike recoveries were included in control charts, and the resulting data were reviewed to ascertain whether they were within the laboratory defined limits for accuracy and precision. The data was compiled into a NEESA Level D data package and any nonconforming data were discussed in the data package cover letter and case narrative.

The Level D data packages were then reviewed and validated by Heartland Environmental Services, Inc., Missouri (Heartland). Data validation is the technical review of a data package using criteria established in the data quality objectives, the quality assurance project plan and guidance documents prepared by the United States Environmental Protection Agency (USEPA) for the validation of organic and inorganic analytical data (USEPA 1990a and 1990b) as specified by NEESA document 20.2-047B.

Samples that did not meet the acceptance limit criteria were qualified with a flag; single letter abbreviations that indicate a problem with the data. Data qualifiers used by the validators when amending the data include the following.

- U Undetected. The analyte was not detected above the contract required quantitation limit (CRQL). The "U" designator also is used to qualify common laboratory contaminants. The "U" designator is applied to an environmental sample when the common laboratory contaminant is detected in an environmental sample at a concentration less than 10 times the value of the concentration detected in any corresponding field QC blank, method blank or preparation blanks.
- J Estimated. The analyte was present, but the reported value may not be accurate or precise. The "J" designator is used to qualify an analyte that was present at a concentration between the CRQL and method detection limit (MDL) or the data "failed" some of the analytical validation criteria but not sufficient to reject the data and when combined with the U designator the quantitation limit is estimated.
- R Rejected. Data was rejected by the data validator during comparison of the NEESA Level D data package with the analytical functional guideline criteria. The "R" designator indicates a significant variance in acceptable laboratory performance. Either re-

analysis or re-sampling and analysis would be necessary to determine the presence or absence of the target analyte(s).

Once the data were reviewed and validated according to the guidance presented in NEESA document 20.2-047B, the data were evaluated by Heartland using the PARCCs criteria included in the Data Quality Objectives (DQOs) of the Work Plan for Navy Installation Restoration Program Plan, NAS Jacksonville, Florida. The following sections present a brief description of PARCCs criteria.

Precision. Precision is a measure of the agreement or repeatability of a set of replicate results obtained from duplicate laboratory analyses of samples collected from the same location/depth interval. Precision was calculated from laboratory analytical data and cannot be measured directly. Precision is expressed as the Relative Percent Difference (RPD) between analytical values for two samples divided by the average of their analytical values. Precision is calculated using the expression:

$$RPD = (D1-D2) / (\frac{1}{2}(D1+D2)) \times 100$$

D1 and D2 are the reported values for the duplicate sample pair. Precision was evaluated using field duplicate samples and laboratory split samples (for example, MS/MSD samples).

Precision for environmental samples and their duplicates was assessed using a maximum RPD of 20 Percent for the water matrices, and 35 Percent for the solid (soil or sediment) matrices. Precision for MS/MSD/MD samples was assessed by using the target analyte specific RPD criteria for the spiked compounds and the sample duplicates.

Accuracy. Accuracy is a measure of the agreement between an experimental determination and the true value of the parameter being measured. Accuracy can be calculated from the analytical data and was not measured directly. Accuracy is used to identify the bias in a given measurement system (i.e. laboratory conditions, sample matrix, and sampling conditions). Accuracy is assessed by reviewing the Percent Recovery (%R) between the true value of the spike analyte and the actual analytical value. Accuracy is calculated using the equation:

$$\%R = ((A-B)/C) \times 100$$

- A = Measured concentration of the spiked analyte.
- B = Measured concentration of the spiked compound in the unspiked sample.
- C = True concentration of the spiked analyte.

For the organic analyses, each of the samples was spiked with a surrogate compound; and for inorganic analyses, each chosen matrix spike and matrix duplicate pair was spiked with a known reference material before digestion. Each of these approaches provides a measure of the matrix effects on the analytical accuracy.

Representativeness. Representativeness is a qualitative measure of the degree to which sample data accurately and precisely represent a characteristic environmental condition. Representativeness is a subjective parameter and is used to evaluate the efficacy of the sampling plan design. Representativeness was evaluated using the field and laboratory QC blank sample results. QC blank samples are equipment rinseate blanks, field blanks, trip blanks, laboratory method blanks for organic analysis and laboratory preparation blanks for inorganic analysis. Positive detection of target analytes in the QC blank samples identify contaminants that possibly were introduced to the associated environmental sample during sample collection, transport or laboratory analysis.

Comparability. Comparability is qualitative measure designed to express the confidence with which one data set may be compared to another. Factors that affect comparability are: sample collection and handling techniques, sample matrix type, and analytical method. Comparability is limited by the other PARCC parameters because only when precision and accuracy are known can data sets be compared with confidence.

Completeness. Completeness is defined as the percentage of measurements that are judged to be valid compared to the total number of measurements made. Valid usable data are values that were not qualified as rejected (R qualifier) during data validation. A goal of 96 percent usable data was established in the Work Plan for NAS Jacksonville RI/FS for OU-1. Completeness equals the total number of analytes for each matrix minus the total number of rejected analytes divided by the total number of analytes multiplied by 100.

2.0 PRECISION

The following section describes the evaluation of precision for volatile organic compounds, semivolatile organic compounds, pesticides and polychlorinated biphenyls (PCBs), total metals, dissolved metals, total petroleum hydrocarbons (TPHs), and radiological nuclides. Duplicate samples are evaluated for precision only when contaminants are detected in both the environmental sample and the sample's duplicate. Environmental samples and their respective duplicates may not exhibit positive results for all compounds found at or near the contract required quantitation limit (CRQL), practical quantitation limit (PQL), or contract required detection limit (CRDL) because of low levels of contamination found at a site. Duplicates with Relative Percent Differences (RPDs) within control limits indicate adequate sampling practices and/or good analytical precision. Duplicates with RPDs outside the control limits may result from inappropriate sampling procedures, matrix interferences, or non-homogeneity of the sample matrix. In addition, poor precision can be attributed to deviation(s) from the analytical methodology or to poor reproducibility of target analyte concentrations at or near the required quantitation or detection limits (CRQLs or CRDLs). The acceptance criteria for evaluating precision of field duplicate analytical results is a RPD of 20 for water matrices and 35 for solid matrices.

Field duplicates were submitted for validation for all analytical fractions. The percentage of duplicate samples collected for this project was equal to ten percent for all matrices for all fractions except volatile cone penetrometer water samples and radiological nuclides surface soil samples. The percentage of field duplicates analyzed for the radiological fraction for the surface soil matrix was 8.7 Percent (8.7%). It is required that ten Percent (10%) field duplicates are taken during a sampling event to ensure a representative base for assessing precision.

The following Sections summarize the evaluation of analytical precision for the groundwater, surface water, cone penetrometer water, soil and sediment field samples for the following analytical groups:

- GC/MS volatile organic compounds (GC/MS VOCs);
- semivolatile organic compounds (SVOCs);
- pesticides, PCBs;
- total metals, dissolved metals;
- total petroleum hydrocarbons;
- radiological gamma-scan nuclides.

Duplicate precision was assessed using both environmental sample and associated duplicates and matrix spike (MS) and matrix spike duplicates (MSDs).

Tabulation of the results of assessing duplicate precision and duplicate frequency are presented in Tables 2-1 through 2-6 for the groundwater matrix, Tables 2-7 through 2-13 for the surface water matrix, Table 2-14 for the cone penetrometer water matrix, Tables 2-15 through 2-19 for the surface soil matrix, and Tables 2-20 through 2-25 for the sediment matrix. Tabulation of the results assessing precision based on the reproducibility between spike sample/spike duplicate/matrix duplicate sample pairs are presented in Tables

TABLE 2 - 1

**GC/MS VOLATILE ORGANIC COMPOUNDS
GROUNDWATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
012EB (90073)	MW4501	WATER	7	NO COMPOUNDS DETECTED				
90076	MW05401	WATER	15	NO COMPOUNDS DETECTED				
90078	MW07101	WATER	10	NO COMPOUNDS DETECTED				
90082	MW05601	WATER	10	NO COMPOUNDS DETECTED				
017EB (90083)	MW06901	WATER	11	NO COMPOUNDS DETECTED				
	MW07901	WATER		NO COMPOUNDS DETECTED				
TOTAL SAMPLES			53					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.3%	0	0	100.0%

TABLE 2 - 2
SEMIVOLATILE ORGANIC COMPOUNDS
GROUNDWATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
012EB (90073)	MW4501	WATER	7	BIS(2-ETHYLHEXYL)PHTHALATE	4	0	20%	200%
90076	MW05401	WATER	15	BIS(2-ETHYLHEXYL)PHTHALATE	4	0	20%	200%
90078	MW07101	WATER	10	NO COMPOUNDS DETECTED				
016E (90082)	MW05601	WATER	10	BIS(2-ETHYLHEXYL)PHTHALATE	2	0	20%	200%
017EB (90083)	MW06901	WATER	11	BIS(2-ETHYLHEXYL)PHTHALATE	0.6	5	20%	157%
	MW07901	WATER		BIS(2-ETHYLHEXYL)PHTHALATE	0.9	2	20%	76%

TOTAL SAMPLES **53**

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.3%	0	5	0.0%

TABLE 2 - 3

**PESTICIDES/PCB COMPOUNDS
GROUNDWATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
012EB (90073)	MW4501	WATER	7	DIELDRIN	0.02	0.012	20%	50%
90076	MW05401	WATER	15	NO COMPOUNDS DETECTED				
90078	MW07101	WATER	10	NO COMPOUNDS DETECTED				
016E (90082)	MW05601	WATER	10	NO COMPOUNDS DETECTED				
017EB (90083)	MW06901	WATER	11	NO COMPOUNDS DETECTED				
	MW07901	WATER		NO COMPOUNDS DETECTED				

TOTAL SAMPLES 53

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.3%	0	1	0.0%

TABLE 2 - 4

TOTAL METALS AND CYANIDE
GROUNDWATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90073	MW04501	WATER	7	ALUMINUM	487000	302000	20%	47%
				ANTIMONY	25.1	20.3	20%	21%
				ARSENIC	10.5	7.2	20%	37%
				BARIIUM	1070	654	20%	48%
				BERYLLIUM	12.6	8.1	20%	43%
				CADMIUM	4.9	5.8	20%	17%
				CALCIUM	10200	9230	20%	10%
				CHROMIUM	564	347	20%	48%
				COBALT	27.7	20.5	20%	30%
				COPPER	40.8	24.8	20%	49%
				IRON	210000	130000	20%	47%
				LEAD	94.7	27.4	20%	110%
				MAGNESIUM	41100	32200	20%	24%
				MANGANESE	167	117	20%	35%
				MERCURY	0.32	0	20%	200%
				NICKEL	103	55.7	20%	60%
				POTASSIUM	18100	12300	20%	38%
				SILVER	4.7	5.5	20%	16%
				SODIUM	14800	12700	20%	15%
				VANADIUM	912	545	20%	50%
ZINC	266	185	20%	36%				
90076	MW05401	WATER	15	ALUMINUM	74100	58600	20%	23%
				ARSENIC	9.4	8.1	20%	15%
				BARIIUM	689	629	20%	9%
				BERYLLIUM	3.3	2.6	20%	24%
				CADMIUM	4.3	0	20%	200%
				CALCIUM	6800	6310	20%	7%
				CHROMIUM	98.2	77.8	20%	23%
				COBALT	8.7	9.8	20%	12%
				COPPER	30.2	27.7	20%	9%
				IRON	52000	45600	20%	13%
				LEAD	32.5	2.7	20%	169%
				MAGNESIUM	14000	12700	20%	10%
				MANGANESE	38.6	32	20%	19%
				MERCURY	0.73	0.47	20%	43%
				NICKEL	22.6	14.9	20%	41%
				POTASSIUM	5280	4870	20%	8%
				SELENIUM	3.9	3	20%	26%
				SILVER	4.2	0	20%	200%
				SODIUM	26800	26600	20%	1%
				VANADIUM	135	111	20%	20%
ZINC	56.2	43.6	20%	25%				

TABLE 2 - 4, CONTINUED

TOTAL METALS AND CYANIDE
 GROUNDWATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90078	MW07101	WATER	10	ALUMINUM	13400	13600	20%	1%
				ARSENIC	0.9	1.2	20%	29%
				BARIUM	231	242	20%	5%
				BERYLLIUM	1.3	1.2	20%	8%
				CALCIUM	19000	19800	20%	4%
				CHROMIUM	9.5	10.2	20%	7%
				COBALT	0	5.5	20%	200%
				COPPER	4.5	5.5	20%	20%
				IRON	4310	4360	20%	1%
				LEAD	3.5	2.7	20%	26%
				MAGNESIUM	7160	7420	20%	4%
				MANGANESE	93.7	99.2	20%	6%
				MERCURY	0.44	0.4	20%	10%
				NICKEL	14.3	16.4	20%	14%
				POTASSIUM	2320	2360	20%	2%
				SELENIUM	0	0.77	20%	200%
				SODIUM	5620	5580	20%	1%
VANADIUM	34.2	37.8	20%	10%				
ZINC	10.8	12.5	20%	15%				
90082	MW05601	WATER	10	ALUMINUM	87	295	20%	109%
				BARIUM	42.1	46.2	20%	9%
				CALCIUM	95200	85500	20%	11%
				IRON	3110	3380	20%	8%
				MAGNESIUM	3450	3650	20%	6%
				MANGANESE	77.8	84.8	20%	9%
				POTASSIUM	1500	1130	20%	28%
				SODIUM	14000	14700	20%	5%
				VANADIUM	4	0	20%	200%
ZINC	14.3	12	20%	17%				

TABLE 2 - 4, CONTINUED

TOTAL METALS AND CYANIDE
 GROUNDWATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD	
90083	MW06901	WATER	11	ALUMINUM	2970	601	20%	133%	
				ARSENIC	8	4.2	20%	62%	
				BARIUM	36.6	15.2	20%	83%	
				BERYLLIUM	0.47	0	20%	200%	
				CALCIUM	68300	25800	20%	90%	
				CHROMIUM -	10.3	13	20%	23%	
				IRON	1920	223	20%	158%	
				LEAD	1.6	0	20%	200%	
				MAGNESIUM	5060	1740	20%	98%	
				MANGANESE	23.9	4.5	20%	137%	
				POTASSIUM	2440	5080	20%	70%	
	SODIUM	8730	14300	20%	48%				
	VANADIUM	14	22.6	20%	47%				
	ZINC	33.9	27.6	20%	20%				
	MW07901	WATER			ALUMINUM	267	0	20%	200%
					BARIUM	76.7	71.6	20%	7%
					CALCIUM	108000	104000	20%	4%
					CHROMIUM	3.3	0	20%	200%
					COPPER	21.7	0	20%	200%
					IRON	4300	4400	20%	2%
					MAGNESIUM	10300	10000	20%	3%
					MANGANESE	60	56.3	20%	6%
					SODIUM	31000	30900	20%	0%
ZINC					17	25.3	20%	39%	

TOTAL SAMPLES 53

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.3%	43	52	45.3%

TABLE 2 - 5
DISSOLVED METALS
GROUNDWATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90075	MW04501	WATER	7	ALUMINIUM	43300	63000	20%	37%
				ARSENIC	3.6	8.6	20%	82%
				BARIUM	206	228	20%	10%
				BERYLLIUM	1.4	2.1	20%	40%
				CADMIUM	0	3.9	20%	200%
				CALCIUM	6560	6050	20%	8%
				CHROMIUM	50.2	75.3	20%	40%
				COBALT	5.8	7	20%	19%
				COPPER	3.6	9.6	20%	91%
				IRON	24500	31100	20%	24%
				LEAD	11.6	16.2	20%	33%
				MAGNESIUM	15800	15800	20%	0%
				MANGANESE	34.8	35.8	20%	3%
				NICKEL	0	14.3	20%	200%
				POTASSIUM	3090	4020	20%	26%
SODIUM	13100	13700	20%	4%				
VANADIUM	85.1	126	20%	39%				
ZINC	69.4	62	20%	11%				
90077	MW05401	WATER	15	ALUMINIUM	634	588	20%	8%
				ARSENIC	3.3	0	20%	200%
				BARIUM	249	251	20%	1%
				BERYLLIUM	0.43	0.43	20%	0%
				CALCIUM	4870	4890	20%	0%
				COPPER	3.8	0	20%	200%
				IRON	10900	10900	20%	0%
				MAGNESIUM	8370	8390	20%	0%
				MANGANESE	13.7	13.2	20%	4%
				POTASSIUM	1300	1240	20%	5%
				SODIUM	26500	26600	20%	0%
				VANADIUM	4	0	20%	200%
ZINC	11.5	7.6	20%	41%				
90081	MW05601	WATER	10	BARIUM	44.8	43.2	20%	4%
				CALCIUM	100000	98600	20%	1%
				COPPER	0	18.2	20%	200%
				IRON	3100	2960	20%	5%
				MAGNESIUM	3610	3580	20%	1%
				MANGANESE	82	81.6	20%	0%
				POTASSIUM	1390	1500	20%	8%
				SODIUM	14700	14700	20%	0%
ZINC	45.3	63.4	20%	33%				

TABLE 2 - 5, CONTINUED

DISSOLVED METALS
 GROUNDWATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90084	MW06901	WATER	8	ALUMINUM	223	230	20%	3%
				ANTIMONY	36.3	23.8	20%	42%
				ARSENIC	3	3.5	20%	15%
				BARIUM	9.9	9.9	20%	0%
				CALCIUM	14200	15200	20%	7%
				CHROMIUM	13.5	13.5	20%	0%
				IRON	13.4	12.8	20%	5%
				LEAD	2.4	1.7	20%	34%
				MAGNESIUM	1540	1590	20%	3%
				MANGANESE	3.4	1.9	20%	57%
				POTASSIUM	5700	5840	20%	2%
				SODIUM	15100	15200	20%	1%
				VANADIUM	21.4	24.3	20%	13%
	ZINC	75.1	66.8	20%	12%			
	MW07901	WATER	8	ANTIMONY	29.3	0	20%	200%
				BARIUM	69.2	69.5	20%	0%
				CALCIUM	104000	106000	20%	2%
				CHROMIUM	3.4	0	20%	200%
				IRON	2410	3390	20%	34%
				LEAD	0	1.7	20%	200%
				MAGNESIUM	10300	10500	20%	2%
				MANGANESE	61.2	58.7	20%	4%
				POTASSIUM	1330	1220	20%	9%
				SODIUM	31900	32400	20%	2%
ZINC				61.4	22.5	20%	93%	

TABLE 2 - 5, CONTINUED

DISSOLVED METALS
 GROUNDWATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90079	MW07101	WATER	10	ALUMINUM	8090	10000	20%	21%
				ANTIMONY	13.1	12.9	20%	2%
				ARSENIC	0.8	0	20%	200%
				BARIUM	95.1	104	20%	9%
				CALCIUM	11500	11900	20%	3%
				CHROMIUM	10.2	14.2	20%	33%
				COPPER	1.8	5.7	20%	104%
				IRON	4380	5440	20%	22%
				LEAD	3.7	4.4	20%	17%
				MAGNESIUM	4850	5110	20%	5%
				MANGANESE	49.2	52.9	20%	7%
				NICKEL	9.4	11.4	20%	19%
				POTASSIUM	2340	2620	20%	11%
				SODIUM	5200	5410	20%	4%
VANADIUM	15.9	20.2	20%	24%				
ZINC	0	14.4	20%	200%				

TOTAL SAMPLES 50

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
14.3%	49	32	60.5%

TABLE 2 - 6

**RADIOLOGICAL NUCLIDES
GROUNDWATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	NUCLIDE	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90076	MW05401	WATER	15	NO NUCLIDES DETECTED				
90078	MW07101	WATER	10	NO NUCLIDES DETECTED				
90082	MW05601	WATER	10	NO NUCLIDES DETECTED				
90083	MW07901	WATER	11	Pb-214	14.0	12.2	20%	14%
	MW06901	WATER		Bi-214	10.6	0.0	20%	200%
90073	MW04501	WATER	7	Ac-228	23.4	0.0	20%	200%
				Bi-214	11.1	0.0	20%	200%
				Pb-214	13.4	0.0	20%	200%
				Th-208	7.4	0.0	20%	200%
				Ra-224	0.0	109	20%	200%

TOTAL SAMPLES 53

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.3%	1	6	14.3%

TABLE 2 - 7

GC/MS VOLATILE COMPOUNDS
 SURFACE WATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90100	SW03601	WATER	5	ACETONE	0	5	20%	200%
90115	SW05401	WATER	9	NO COMPOUNDS DETECTED				
90133	SW04301	WATER	9	NO COMPOUNDS DETECTED				

TOTAL SAMPLES 23

% OF DUPLICATE COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	0	1	0.0%

TABLE 2 - 8

SEMIVOLATILE COMPOUNDS
 SURFACE WATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90100	SW03601	WATER	5	DI-N-BUTYLPHTHALATE	0	2	20%	200%
90115	SW05401	WATER	9	NO COMPOUNDS DETECTED				
90133	SW04301	WATER	9	NO COMPOUNDS DETECTED				

TOTAL SAMPLES 23

% OF DUPLICATE COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	0	1	0.0%

TABLE 2 - 9

**PESTICIDES/PCB COMPOUNDS
SURFACE WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90100	SW03601	WATER	5	NO COMPOUNDS DETECTED				
90115	SW05401	WATER	9	NO COMPOUNDS DETECTED				
90133	SW05401	WATER	9	NO COMPOUNDS DETECTED				

TOTAL SAMPLES 23

% OF DUPLICATE COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	0	0	100.0%

TABLE 2 - 10

TOTAL METALS AND CYANIDE
 SURFACE WATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90100	SW03601	WATER	5	ALUMINUM	140	134	20%	4%
				ARSENIC	4.9	7.7	20%	44%
				BARIUM	71.5	73.4	20%	3%
				CALCIUM	123000	127000	20%	3%
				COPPER	14	12.4	20%	12%
				IRON	1150	1180	20%	3%
				LEAD	0	7.7	20%	200%
				MAGNESIUM	59900	31900	20%	61%
				MANGANESE	24.9	25.3	20%	2%
				POTASSIUM	6130	6330	20%	3%
				SODIUM	133000	137000	20%	3%
				ZINC	12.5	11.7	20%	7%
90115	SW05401	WATER	9	ALUMINUM	138	120	20%	14%
				BARIUM	118	114	20%	3%
				CALCIUM	29300	28800	20%	2%
				IRON	1090	1110	20%	2%
				LEAD	1.3	0	20%	200%
				MAGNESIUM	16200	15800	20%	3%
				MANGANESE	25.8	25.8	20%	0%
				POTASSIUM	4890	4860	20%	1%
				SODIUM	34200	33200	20%	3%
				ZINC	2.8	3.4	20%	19%
90133	SW04301	WATER	9	ALUMINUM	109	190	20%	54%
				BARIUM	72.4	65.4	20%	10%
				CALCIUM	76300	70500	20%	8%
				COPPER	13.6	2.7	20%	134%
				IRON	846	1000	20%	17%
				LEAD	0	1.5	20%	200%
				MAGNESIUM	26100	24200	20%	8%
				MANGANESE	37.2	36.6	20%	2%
				POTASSIUM	3130	3670	20%	16%
				SELENIUM	0	3.8	20%	200%
				SODIUM	41000	37800	20%	8%
				ZINC	4.5	6.1	20%	30%

TOTAL SAMPLES 23

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	25	9	73.5%

TABLE 2 - 11

DISSOLVED METALS

**SURFACE WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90113	SW05401	WATER	5	BARIUM	110	110	20%	0%
				CALCIUM	27700	27900	20%	1%
				COPPER	2.8	0	20%	200%
				IRON	130	124	20%	5%
				MAGNESIUM	15400	15500	20%	1%
				MANGANESE	21.3	21.5	20%	1%
				MERCURY	0.14	0.15	20%	7%
				POTASSIUM	4580	4930	20%	7%
				SODIUM	32600	32600	20%	0%
				ZINC	8.4	5.9	20%	35%
90105	SW03601	WATER	9	ALUMINUM	60.7	50.6	20%	18%
				ARSENIC	4.3	0	20%	200%
				BARIUM	68.8	68.7	20%	0%
				CALCIUM	118000	120000	20%	2%
				COPPER	13.8	3.3	20%	123%
				IRON	503	507	20%	1%
				LEAD	0	16.2	20%	200%
				MAGNESIUM	58400	58900	20%	1%
				MANGANESE	22.3	22.5	20%	1%
				POTASSIUM	6080	6380	20%	5%
				SELENIUM	2.5	0	20%	200%
				SODIUM	131000	132000	20%	1%
				ZINC	8	5.6	20%	35%
90135	SW04301	WATER	9	ALUMINUM	34.6	32.8	20%	5%
				ARSENIC	4.1	0	20%	200%
				BARIUM	57.5	61	20%	6%
				CALCIUM	70900	73500	20%	4%
				IRON	165	172	20%	4%
				MAGNESIUM	22600	23500	20%	4%
				MANGANESE	30.6	32.1	20%	5%
				POTASSIUM	3890	4070	20%	5%
				SODIUM	35800	37100	20%	4%
				ZINC	3.1	0	20%	200%

TOTAL SAMPLES 23

% OF DUPLICATE COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	24	9	72.7%

TABLE 2 - 12

TOTAL PETROLEUM HYDROCARBONS
 SURFACE WATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90100	SW03601	WATER	5	NO COMPOUNDS DETECTED				
90115	SW05401	WATER	9	NO COMPOUNDS DETECTED				
90133	SW04301	WATER	9	NO COMPOUNDS DETECTED				

TOTAL SAMPLES 23

% OF DUPLICATE COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	0	0	100.0%

TABLE 2 - 13

**RADIOLOGICAL NUCLIDES
SURFACE WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	NUCLIDE	SAMPLE CONC.	DUP CONC	MAX RPD	RPD	RPD OUT
90100	SW03601	WATER	5	NO NUCLIDES DETECTED					
90115	SW05401	WATER	4	Pb-214	0	17.6	20%	200%	1
90133	SW04301	WATER	14	NO NUCLIDES DETECTED					

TOTAL SAMPLES 23

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	0	1	0.0%

TABLE 2 - 14

**GC/MS VOLATILE ORGANIC COMPOUNDS
 CONE PENETROMETER WATER SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90143	CW01702	WATER	9	1,2-DICHLOROETHANE	5	5	20%	0%
				BENZENE	8	8	20%	0%
				XYLENE	16	17	20%	6%
90176	CW07801	WATER	6	VINYL CHLORIDE	13	11	20%	17%
				METHYLENE CHLORIDE	7	0	20%	200%
				1,1-DICHLOROETHENE	3	0	20%	200%
				1,2-DICHLOROETHENE (TOTAL)	440	360	20%	20%
				TRICHLOROETHENE	320	270	20%	17%

TOTAL SAMPLES 15

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.3%	6	2	75.0%

TABLE 2 - 15

GC/MS VOLATILE ORGANIC COMPOUNDS
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
03801	SB03601	SOIL	5	NO COMPOUNDS DETECTED				
90026	SB05001	SOIL	15	NO COMPOUNDS DETECTED				
90065	SB06801	SOIL	3	NO COMPOUNDS DETECTED				

TOTAL SAMPLES 23

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	0	0	100.0%

TABLE 2 - 16

SEMIVOLATILE ORGANIC COMPOUNDS
 SOIL SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
03801	SB03601	SOIL	5	PHENOL	0	20	35%	200%
				BIS(2-ETHYLHEXYL)PHTHALATE	26	44	35%	51%
				FLUORANTHENE	0	21	35%	200%
				PYRENE	0	18	35%	200%
				CHRYSENE	0	20	35%	200%
				BENZO(B)FLUORANTHENE	0	26	35%	200%
				BENZO(A)PYRENE	0	25	35%	200%
				INDENO(991,2,3-CD)PYRENE	0	22	35%	200%
				DIBENZ(A,H)ANTHRACENE	0	18	35%	200%
BENZO(G,H,I)PERYLENE	0	25	35%	200%				
90026	SB05001	SOIL	15	DI-N-BUTYLPHthalate	99	0	35%	200%
90065	SB06801	SOIL	3	NO COMPOUNDS DETECTED				

TOTAL SAMPLES 23

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	0	11	0.0%

TABLE 2 - 17

**PESTICIDES ORGANIC COMPOUNDS
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
03801	SB03601	SOIL	5	HEPTACHLOR	2.8	2.6	35%	7%
				HEPTACHLOR EPOXIDE	22	18	35%	20%
				4,4'-DDE	15	15	35%	0%
				4,4'-DDD	140	160	35%	13%
				4,4'-DDT	9.5	11	35%	15%
				ALPHA-CHLORDANE	720	620	35%	15%
				GAMMA-CHLORDANE	620	540	35%	14%
90026	SB05001	SOIL	15	DIELDRIN	200	240	35%	18%
90065	SB06801	SOIL	3	NO COMPOUNDS DETECTED				

TOTAL SAMPLES 23

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	8	0	100.0%

TABLE 2 - 18

**TOTAL METALS AND CYANIDE
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
03801	SB03601	SOIL	9	ALUMINUM	1160	1360	35%	16%
				ARSENIC	0.34	0.33	35%	3%
				BARIUM	7.9	7.7	35%	3%
				BERYLLIUM	0.21	0.21	35%	0%
				CALCIUM	22400	19400	35%	14%
				CHROMIUM	3.8	3.4	35%	11%
				COPPER	2.1	1.9	35%	10%
				IRON	605	749	35%	21%
				LEAD	17	18.9	35%	11%
				MAGNESIUM	177	188	35%	6%
				MANGANESE	15.8	17.7	35%	11%
				MERCURY	0	0.16	35%	200%
				SODIUM	139	145	35%	4%
VANADIUM	3.5	4	35%	13%				
ZINC	19.4	22.8	35%	16%				
90026	SB05001	SOIL	11	ALUMINUM	942	521	35%	58%
				ARSENIC	0.69	0.87	35%	23%
				BARIUM	3.2	2.7	35%	17%
				BERYLLIUM	0.06	0	35%	200%
				CHROMIUM	2.1	1.4	35%	40%
				IRON	844	467	35%	58%
				LEAD	16.7	13.2	35%	23%
				MANGANESE	29.8	7.9	35%	116%
				MERCURY	0.02	0.03	35%	40%
				VANADIUM	4.4	3.7	35%	17%
ZINC	4.3	3.8	35%	12%				
90065	SB06801	SOIL	3	ALUMINUM	763	534	35%	35.3%
				ARSENIC	0.39	0.35	35%	11%
				BARIUM	3.9	2.9	35%	29%
				CALCIUM	89.9	54.6	35%	49%
				IRON	397	291	35%	31%
				LEAD	2.8	2.2	35%	24%
				MAGNESIUM	29.8	18.8	35%	45%
				MANGANESE	12.1	7.3	35%	49%
				NICKEL	3	2.6	35%	14%
ZINC	7.9	4.8	35%	49%				

TOTAL SAMPLES

23

TABLE 2 - 18, CONTINUED

TOTAL METALS AND CYANIDE
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
13.0%	24	12	66.7%

TABLE 2 - 19

**RADIOLOGICAL NUCLIDES
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	NUCLIDE	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90026	SB05001	SOIL	20	Ac-228	1300	1500	35%	14%
				Bi-214	660	990	35%	40%
				Cs-137	210	250	35%	17%
				K-40	5300	5300	35%	0%
				Pb-212	770	750	35%	3%
				Pb-214	650	850	35%	27%
				Ra-223	410	490	35%	18%
				Ra-224	1300	0	35%	200%
				Ra-228	1200	1500	35%	22%
				Th-231	170	160	35%	6%
				Th-232	1200	1500	35%	22%
				Th-234	1900	4700	35%	85%
				Tl-200	360	360	35%	0%
				U-234	1200	3400	35%	96%
U-238	1200	3400	35%	96%				
90065	SB06801	SOIL	3	Ac-228	855	1060	35%	21%
				Bi-214	516	666	35%	25%
				Cs-137	64	53	35%	19%
				K-40	4650	4020	35%	15%
				Pb-212	604	578	35%	4%
				Pb-214	767	666	35%	14%
				Ra-224	1640	1	35%	200%
				Ra-228	843	1040	35%	21%
				Th-231	138	1	35%	197%
				Th-232	843	1040	35%	21%
				Th-234	1190	0	35%	200%
Tl-208	327	289	35%	12%				
TOTAL SAMPLES			23					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
8.7%	19	8	70.4%

TABLE 2 - 20

GC/MS VOLATILE ORGANIC COMPOUNDS
 SEDIMENT SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
03501	SD03601	SED	8	2-BUTANONE	22	14	35%	44%
90115	SD05401	SED	12	2-BUTANONE	10	16	35%	46%
90133	SD04301	SED	5	ACETONE	160	450	35%	95%
				2-BUTANONE	32	79	35%	85%
TOTAL SAMPLES			25					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
12.0%	0	4	0.0%

TABLE 2 - 21

**SEMIVOLATILE ORGANIC COMPOUNDS
SEDIMENT SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
03501	SD03601	SED	8	PHENOL	22	0	35%	200%
				PHENANTHRENE	0	24	35%	200%
				FLUORANTHENE	61	70	35%	14%
				PYRENE	46	51	35%	10%
				CHRYSENE	40	32	35%	22%
				BIS(2-ETHYLHEXYL)PHTHALATE	0	420	35%	200%
				BENZO(B)FLUORANTHENE	46	44	35%	4%
				BENZO(A)PYRENE	26	26	35%	0%
				INDENO(1,2,3-CD)PYRENE	22	0	35%	200%
				BENZO(G,H,I)PERYLENE	23	0	35%	200%
90115	SD05401	SED	12	NO COMPOUNDS DETECTED				
90133	SD04301	SED	5	NO COMPOUNDS DETECTED				
TOTAL SAMPLES			25					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
12.0%	5	5	50.0%

TABLE 2 - 22

PESTICIDES ORGANIC COMPOUNDS
 SEDIMENT SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
03501	SD03601	SED	8	4,4'-DDE	14	7.9	35%	56%
				4,4'-DDD	11	11	35%	0%
				AR1260	230	420	35%	58%
90115	SD05401	SED	12	4,4'-DDD	340	330	35%	3%
				AR1260	7500	3700	35%	68%
90133	SD03401	SED	5	4,4'-DDE	25	24	35%	4%
				4,4'-DDD	110	150	35%	31%
TOTAL SAMPLES			25					

% OF DUPLICATE COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
12.0%	4	3	57.1%

TABLE 2 - 23

TOTAL METALS AND CYANIDE
 SEDIMENT SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90115	SD05401	SED	12	ALUMINUM	6630	8530	35%	25%
				BARIUM	47.8	55.3	35%	15%
				BERYLLIUM	0.71	0.61	35%	15%
				CALCIUM	957	2080	35%	74%
				CHROMIUM	11.3	15.4	35%	31%
				COBALT	3.6	2.4	35%	40%
				COPPER	3.5	8.2	35%	80%
				IRON	13100	13000	35%	1%
				LEAD	12.6	38.3	35%	101%
				MAGNESIUM	314	467	35%	39%
				MANGANESE	32.9	26	35%	23%
				MERCURY	0.04	0.08	35%	67%
				NICKEL	0	4.4	35%	200%
				POTASSIUM	148	164	35%	10%
90133	SD04301	SED	5	VANADIUM	12.6	14.8	35%	16%
				ZINC	39.4	60.2	35%	42%
				ALUMINUM	11500	12200	35%	6%
				ARSENIC	8.4	10.5	35%	22%
				BARIUM	61.8	71.4	35%	14%
				BERYLLIUM	1	0.8	35%	22%
				CALCIUM	12500	11600	35%	7%
				CHROMIUM	21.8	23.4	35%	7%
				COPPER	4.8	6	35%	22%
				IRON	10500	12600	35%	18%
				LEAD	43.1	56.5	35%	27%
				MAGNESIUM	3320	3110	35%	7%
				MANGANESE	80.3	87.6	35%	9%
				MERCURY	0.03	0.03	35%	0%
SELENIUM	3.9	3.3	35%	17%				
SODIUM	3680	3540	35%	4%				
VANADIUM	27.3	27.3	35%	0%				
ZINC	55.9	60.2	35%	7%				

TABLE 2 - 23, CONTINUED

TOTAL METALS AND CYANIDE
 SEDIMENT SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
03501	SD03601	SED	8	ALUMINUM	1250	2430	35%	64%
				BARIUM	15.5	21	35%	30%
				BERYLLIUM	0	0.13	35%	200%
				CALCIUM	8810	10800	35%	20%
				CHROMIUM	9.2	16.2	35%	55%
				COPPER	23	19.1	35%	19%
				IRON	4310	5080	35%	16%
				LEAD	50.6	42.2	35%	18%
				MAGNESIUM	342	372	35%	8%
				MANGANESE	8.7	10.9	35%	22%
				MERCURY	0.06	0.04	35%	40%
				VANADIUM	5.3	6.6	35%	22%
ZINC	89	75.4	35%	17%				

TOTAL SAMPLES 25

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
12.0%	33	12	73.3%

TABLE 2 - 24

**TOTAL PETROLEUM HYDROCARBONS
 SEDIMENT SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90100	SD03601	SED	8	TOTAL PETROLEUM HYDROCARBON	226	223	35%	1%
90115	SD05401	SED	12	TOTAL PETROLEUM HYDROCARBON	300	233	35%	25%
90133	SD04301	SED	5	TOTAL PETROLEUM HYDROCARBON	669	534	35%	22%

TOTAL SAMPLES 25

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
12.0%	3	0	100.0%

TABLE 2 - 25

**RADIOLOGICAL NUCLIDES
SEDIMENT SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	NUCLIDE	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
90100	SD03601	SED	8	Ac-228	1410	1740	35%	21%
				Bi-212	6450	4000	35%	47%
				Bi-214	8790	6400	35%	31%
				K-40	1160	978	35%	17%
				Pb-212	160000	151000	35%	6%
				Pb-214	32900	48000	35%	37%
				Tl-208	4980	4230	35%	16%
				U-235	52300	0	35%	200%
90115	SD05401	SED	12	Ac-228	10100	8970	35%	12%
				Bi-212	26000	0	35%	200%
				Bi-214	43600	33600	35%	26%
				K-40	5610	6050	35%	8%
				Pb-212	680000	555000	35%	20%
				Th-228	0	14700000	35%	200%
				Tl-208	22100	17200	35%	25%
				U-235	207000	128000	35%	47%
90133	SD04301	SED	5	Cs-137	7050	4800	35%	38%
				Pb-212	0	12100	35%	200%
				Pb-214	0	7000	35%	200%
				Tl-208	7420	0	35%	200%
				U-235	0	5670	35%	200%

TOTAL SAMPLES 25

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
12.0%	10	11	47.6%

TABLE 2 - 26

GC/MS VOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW4501		SDG 012EB (90073)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	92	92	0
TRICHLOROETHENE	ug/L	92	94	2
BENZENE	ug/L	92	92	0
TOLUENE	ug/L	88	92	4
CHLOROBENZENE	ug/L	90	94	4

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90072: MW06601, MW07601
012EB (90073): MW4101, MW4201, MW4501, MW4501RP,
MW5201, MW5301, MW5801, MW5901
90074: MW06601, MW07601

MS = MATRIX SPIKE SAMPLE MW06101		SDG 90078		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	77	78	1
TRICHLOROETHENE	ug/L	82	77	6
BENZENE	ug/L	84	79	6
TOLUENE	ug/L	78	79	1
CHLOROBENZENE	ug/L	*70	79	12

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90076: MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW07001
MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05401,
MW05401RP
90078: MW08201, MW08301, MW00901, MW07001, MW07701, MW06701,
MW07101RP, MW07201, MW06101, MW06201

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
1,1-DICHLOROETHENE	61%-145%		14
TRICHLOROETHENE	71%-120%		14
BENZENE	76%-127%		11
TOLUENE	76%-125%		13
CHLOROBENZENE	75%-130%		13

TABLE 2 - 26, CONTINUED

GC/MS VOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW00601		SDG 017EB (90083)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	86	84	2
TRICHLOROETHENE	ug/L	88	90	2
BENZENE	ug/L	80	84	5
TOLUENE	ug/L	84	86	2
CHLOROBENZENE	ug/L	90	100	10

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90082: MW05501, MW05601, MW05601RP, MW06001, MW06301, MW06401,
MW06501, MW07301, MW07401, MW07501, MW05701
017EB (90083): MW07901, MW07901RP, MW00801, MW01101, MW03701,
MW04401, MW06801, MW06901, MW06901RP, MW07801,
MW00018TB, MW00601, MW04301, MW03801

MS = MATRIX SPIKE SAMPLE MW05601RP		SDG 90082		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	115	111	4
TRICHLOROETHENE	ug/L	105	105	0
BENZENE	ug/L	107	107	0
TOLUENE	ug/L	105	104	1
CHLOROBENZENE	ug/L	107	107	0

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90082: MW05501, MW05601, MW05601RP, MW06001, MW06301, MW06401,
MW06501, MW07301, MW07401, MW07501, MW05701
017EB (90083): MW07901, MW07901RP, MW00801, MW01101, MW03701,
MW04401, MW06801, MW06901, MW06901RP, MW07801,
MW00018TB, MW00601, MW04301, MW03801

COMPOUND	ADVISORY LIMITS	RPD
	%R WATER	WATER
1,1-DICHLOROETHENE	61%-145%	14
TRICHLOROETHENE	71%-120%	14
BENZENE	76%-127%	11
TOLUENE	76%-125%	13
CHLOROBENZENE	75%-130%	13

TABLE 2 - 27

SEMIVOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW4501		SDG 012EB (90073)	
		MS	MSD		
SVOA COMPOUNDS		UNITS	%R	%R	%RPD
PHENOL	ug/L	68	72	6	
2-CHLOROPHENOL	ug/L	65	71	9	
1,4-DICHLOROBENZENE	ug/L	60	64	6	
N-NITROSO-DI-N-PROP.(1)	ug/L	70	74	5	
1,2,4-TRICHLOROBENZENE	ug/L	58	66	13	
4-CHLORO-3-METHYLPHENOL	ug/L	79	83	5	
ACENAPHTHENE	ug/L	68	72	6	
4-NITROPHENOL	ug/L	61	80	27	
2,4-DINITROTOLUENE	ug/L	78	78	0	
PENTACHLOROPHENOL	ug/L	93	99	6	
PYRENE	ug/L	54	56	4	

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90072: MW06601, MW07601

012EB (90073): MW4101, MW4201, MW4501, MW4501RP,

MW5201, MW5301, MW5801, MW5901

90074: MW06601, MW07601

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
PHENOL	12%-89%		42
2-CHLOROPHENOL	27%-123%		40
1,4-DICHLOROBENZENE	36%-97%		28
N-NITROSO-DI-N-PROP.(1)	41%-116%		38
1,2,4-TRICHLOROBENZENE	39%-98%		28
4-CHLORO-3-METHYLPHENOL	23%-97%		42
ACENAPHTHENE	46%-118%		31
4-NITROPHENOL	10%-80%		50
2,4-DINITROTOLUENE	24%-96%		38
PENTACHLOROPHENOL	9%-103%		50
PYRENE	26%-127%		31

TABLE 2 - 27, CONTINUED

SEMIVOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW06101		SDG 90078	
		MS	MSD	MS	MSD
		%R	%R	%RPD	
SVOA COMPOUNDS	UNITS				
PHENOL	ug/L	71	68	4	
2-CHLOROPHENOL	ug/L	73	64	13	
1,4-DICHLOROBENZENE	ug/L	61	47	26	
N-NITROSO-DI-N-PROP. (1)	ug/L	84	-77	9	
1,2,4-TRICHLOROBENZENE	ug/L	71	60	17	
4-CHLORO-3-METHYLPHENOL	ug/L	79	72	9	
ACENAPHTHENE	ug/L	73	69	6	
4-NITROPHENOL	ug/L	75	63	17	
2,4-DINITROTOLUENE	ug/L	77	69	11	
PENTACHLOROPHENOL	ug/L	*111	*105	6	
PYRENE	ug/L	81	82	1	

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90076: MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW07001
MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05401,
MW05401RP

90078: MW00014EB, MW08201, MW08301, MW00901, MW07001,
MW7101RP, MW07201, MW06101, MW06201, MW06701, MW07701

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
PHENOL	12%-89%		42
2-CHLOROPHENOL	27%-123%		40
1,4-DICHLOROBENZENE	36%-97%		28
N-NITROSO-DI-N-PROP. (1)	41%-116%		38
1,2,4-TRICHLOROBENZENE	39%-98%		28
4-CHLORO-3-METHYLPHENOL	23%-97%		42
ACENAPHTHENE	46%-118%		31
4-NITROPHENOL	10%-80%		50
2,4-DINITROTOLUENE	24%-96%		38
PENTACHLOROPHENOL	9%-103%		50
PYRENE	26%-127%		31

TABLE 2 - 27, CONTINUED

SEMIVOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW00601		SDG 017EB (90083)		
		MS	MSD			
SVOA COMPOUNDS		UNITS	%R	%R	%RPD	
PHENOL	ug/L	*10	15	37		
2-CHLOROPHENOL	ug/L	*19	*23	19		
1,4-DICHLOROBENZENE	ug/L	*16	*22	*31		
N-NITROSO-DI-N-PROP.(1)	ug/L	*18	*22	20		
1,2,4-TRICHLOROBENZENE	ug/L	*17	*20	16		
4-CHLORO-3-METHYLPHENOL	ug/L	25	29	11		
ACENAPHTHENE	ug/L	*21	*23	9		
4-NITROPHENOL	ug/L	23	25	8		
2,4-DINITROTOLUENE	ug/L	26	27	4		
PENTACHLOROPHENOL	ug/L	23	26	14		
PYRENE	ug/L	27	28	4		

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90082: MW05501, MW05601, MW05601RP, MW06001, MW06301, MW06401,
MW06501, MW07301, MW07401, MW07501, MW05701
017EB (90083): MW00801, MW01101, MW03701, MW07901,
MW04401, MW06801, MW06901, MW06901RP, MW07801
MW00601, MW04301, MW03801, MW07901RP

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
PHENOL	12%-89%		42
2-CHLOROPHENOL	27%-123%		40
1,4-DICHLOROBENZENE	36%-97%		28
N-NITROSO-DI-N-PROP.(1)	41%-116%		38
1,2,4-TRICHLOROBENZENE	39%-98%		28
4-CHLORO-3-METHYLPHENOL	23%-97%		42
ACENAPHTHENE	46%-118%		31
4-NITROPHENOL	10%-80%		50
2,4-DINITROTOLUENE	24%-96%		38
PENTACHLOROPHENOL	9%-103%		50
PYRENE	26%-127%		31

TABLE 2 - 27, CONTINUED

SEMIVOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW05601RP		SDG 90082 (016E)		
		MS	MSD			
SVOA COMPOUNDS		UNITS	%R	%R	%RPD	
PHENOL	ug/L	67	63	6		
2-CHLOROPHENOL	ug/L	71	67	6		
1,4-DICHLOROBENZENE	ug/L	60	63	5		
N-NITROSO-DI-N-PROP.(1)	ug/L	75	71	5		
1,2,4-TRICHLOROBENZENE	ug/L	71	-74	4		
4-CHLORO-3-METHYLPHENOL	ug/L	77	77	0		
ACENAPHTHENE	ug/L	76	73	4		
4-NITROPHENOL	ug/L	64	59	8		
2,4-DINITROTOLUENE	ug/L	72	73	1		
PENTACHLOROPHENOL	ug/L	*124	*113	9		
PYRENE	ug/L	108	95	13		

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

016E (90082): MW05501, MW05601, MW05601RP, MW06001, MW06301, MW06401,
MW06501, MW07301, MW07401, MW07501, MW05701
017EB (90083): MW00801, MW01101, MW03701, MW07901,
MW04401, MW06801, MW06901, MW06901RP, MW07801
MW00601, MW04301, MW03801, MW07901RP

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
PHENOL	12%-89%		42
2-CHLOROPHENOL	27%-123%		40
1,4-DICHLOROBENZENE	36%-97%		28
N-NITROSO-DI-N-PROP.(1)	41%-116%		38
1,2,4-TRICHLOROBENZENE	39%-98%		28
4-CHLORO-3-METHYLPHENOL	23%-97%		42
ACENAPHTHENE	46%-118%		31
4-NITROPHENOL	10%-80%		50
2,4-DINITROTOLUENE	24%-96%		38
PENTACHLOROPHENOL	9%-103%		50
PYRENE	26%-127%		31

TABLE 2 - 28

PESTICIDES/PCBS

**GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE MW4501</i>		SDG 012EB (90073)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	88	96	9
Heptachlor	ug/L	64	70	9
Aldrin	ug/L	56	60	7
Dieldrin	ug/L	82	88	7
Endrin	ug/L	80	83	4
4,4'-DDT	ug/L	46	49	6

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90072: MW06601, MW07601
 012EB (90073): MW4101, MW4201, MW4501, MW4501RP,
 MW5201, MW5301, MW5801, MW5901
 90074: MW06601, MW07601

MS = MATRIX SPIKE <i>SAMPLE MW05401RP</i>		SDG 90076		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	78	78	0
Heptachlor	ug/L	74	72	3
Aldrin	ug/L	69	64	8
Dieldrin	ug/L	76	76	0
Endrin	ug/L	80	79	1
4,4'-DDT	ug/L	56	48	15

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90076: MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW07001
 MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05401,
 MW05401RP
 90078: MW08201, MW08301, MW00901, MW07001,
 MW7101RP, MW07201, MW06101, MW06201, MW06701, MW07701

	% R WATER		WATER
gamma-BHC(Lindane)	56%-123%		15
HEPTACHLOR	40%-131%		20
ALDRIN	40%-120%		22
DIELDRIN	52%-126%		18
ENDRIN	56%-121%		21
4,4'-DDT	38%-127%		27

TABLE 2 - 28, CONTINUED

**PESTICIDES/PCBS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE MW06101</i>		SDG 90078		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	83	85	2
Heptachlor	ug/L	73	79	8
Aldrin	ug/L	65	72	10
Dieldrin	ug/L	80	82	2
Endrin	ug/L	87	89	2
4,4'-DDT	ug/L	51	69	*30

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90076: MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW07001
MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05401,
MW05401RP

90078: MW08201, MW08301, MW00901, MW07001, MW07101,
MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701

MS = MATRIX SPIKE <i>SAMPLE MW06001</i>		SDG 017EB (90083)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	112	114	2
Heptachlor	ug/L	94	88	7
Aldrin	ug/L	70	74	6
Dieldrin	ug/L	100	100	0
Endrin	ug/L	100	100	0
4,4'-DDT	ug/L	97	93	4

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90082: MW05501, MW05601, MW05601RP, MW06001, MW06301, MW06401,
MW06501, MW07301, MW07401, MW07501, MW05701

017EB (90083): MW00801, MW01101, MW03701, MW07901,
MW04401, MW06801, MW06901, MW06901RP, MW07801
MW00601, MW04301, MW03801, MW07901RP

	% R WATER		WATER
gamma-BHC(Lindane)	56%-123%		15
HEPTACHLOR	40%-131%		20
ALDRIN	40%-120%		22
DIELDRIN	52%-126%		18
ENDRIN	56%-121%		21
4,4'-DDT	38%-127%		27

TABLE 2 - 28, CONTINUED

**PESTICIDES/PCBS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE MW05601		SDG 016E (90082)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	96	104	8
Heptachlor	ug/L	82	86	5
Aldrin	ug/L	90	92	2
Dieldrin	ug/L	95	100	5
Endrin	ug/L	92	96	4
4,4'-DDT	ug/L	89	83	5

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90082: MW05501, MW05601, MW05601RP, MW06001, MW06301, MW06401,
MW06501, MW07301, MW07401, MW07501, MW05701
017EB (90083): MW00801, MW01101, MW03701, MW07901,
MW04401, MW06801, MW06901, MW06901RP, MW07801
MW00601, MW04301, MW03301, MW07901RP

	% R WATER		WATER
gamma-BHC(Lindane)	56%-123%		15
HEPTACHLOR	40%-131%		20
ALDRIN	40%-120%		22
DIELDRIN	52%-126%		18
ENDRIN	56%-121%		21
4,4'-DDT	38%-127%		27

TABLE 2 - 29

**TOTAL METALS AND CYANIDE
WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE SB00009EB</i>		SDG 90065	
MD = MATRIX DUPLICATE <i>SAMPLE SB00009EB</i>		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	102.4	NC
ANTIMONY	ug/L	101.8	NC
ARSENIC	ug/L	84.1	200.0
BARIUM	ug/L	103.7	143.7
BERYLLIUM	ug/L	102.8	NC
CADMIUM	ug/L	103.3	NC
CALCIUM	ug/L	NR	23.0
CHROMIUM	ug/L	103.0	12.1
COBALT	ug/L	104.4	NC
COPPER	ug/L	105.6	13.4
IRON	ug/L	101.9	14.4
LEAD	ug/L	*74.9	200.0
MAGNESIUM	ug/L	NR	NC
MANGANESE	ug/L	102.0	22.2
MERCURY	ug/L	NR	NR
NICKEL	ug/L	103.2	NC
POTASSIUM	ug/L	NR	NC
SELENIUM	ug/L	94.7	200.0
SILVER	ug/L	101.2	NC
SODIUM	ug/L	NR	22.0
THALLIUM	ug/L	90.0	NC
VANADIUM	ug/L	100.9	NC
ZINC	ug/L	103.9	10.6
CYANIDE	ug/L	NR	NR

MS = MATRIX SPIKE <i>SAMPLE SB00002FB</i>		SDG 90065	
MD = MATRIX DUPLICATE <i>SAMPLE SB00002FB</i>		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	89.9	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90065: SB00009EB, SB00002FB

COMPOUND	ADVISORY LIMITS	RPD
	%R WATER	WATER
ALL COMPOUNDS	75%-125%	+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 29, CONTINUED

TOTAL METALS AND CYANIDE
 WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SB00010EB MD = MATRIX DUPLICATE SAMPLE SB00010EB RPD = RELATIVE PERCENT DIFFERENCE		SDG 90067	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	104.3	81.2
ANTIMONY	ug/L	104.1	NC
ARSENIC	ug/L	88.8	NC
BARIIUM	ug/L	107.5	87.3
BERYLLIUM	ug/L	105.1	200.0
CADMIUM	ug/L	114.3	NC
CALCIUM	ug/L	NR	51.5
CHROMIUM	ug/L	104.4	200.0
COBALT	ug/L	104.8	NC
COPPER	ug/L	103.1	NC
IRON	ug/L	98.1	160.8
LEAD	ug/L	99.2	NC
MAGNESIUM	ug/L	NR	NC
MANGANESE	ug/L	104.1	NC
MERCURY	ug/L	NR	NR
NICKEL	ug/L	106.2	NC
POTASSIUM	ug/L	NR	NC
SELENIUM	ug/L	84.3	NC
SILVER	ug/L	103.7	NC
SODIUM	ug/L	NR	40.1
THALLIUM	ug/L	101.5	NC
VANADIUM	ug/L	101.9	NC
ZINC	ug/L	103.2	8.1
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90067: SB00010EB

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 29, CONTINUED

TOTAL METALS AND CYANIDE
 WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW06601		SDG 90072	
MD = MATRIX DUPLICATE SAMPLE MW06601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	1343.1	*23.2
ANTIMONY	ug/L	76.1	NC
ARSENIC	ug/L	99.6	NC
BARIUM	ug/L	99.1	8.3
BERYLLIUM	ug/L	103.6	0.0
CADMIUM	ug/L	96.8	200.0
CALCIUM	ug/L	NR	0.0
CHROMIUM	ug/L	107.2	18.1
COBALT	ug/L	100.9	NC
COPPER	ug/L	101.8	7.8
IRON	ug/L	585.0	19.8
LEAD	ug/L	103.3	5.1
MAGNESIUM	ug/L	NR	11.7
MANGANESE	ug/L	101.0	14.1
MERCURY	ug/L	NR	NR
NICKEL	ug/L	103.5	NC
POTASSIUM	ug/L	NR	4.9
SELENIUM	ug/L	76.0	200.0
SILVER	ug/L	94.8	NC
SODIUM	ug/L	NR	0.3
THALLIUM	ug/L	89.7	NC
VANADIUM	ug/L	97.3	19.0
ZINC	ug/L	103.4	3.7
CYANIDE	ug/L	NR	NR

MS = MATRIX SPIKE SAMPLE MW07601		SDG 90072	
MD = MATRIX DUPLICATE SAMPLE MW07601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	91.9	3.6
CYANIDE	ug/L	99.1	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90072: MW00003FB, MW0011EB, MW06601, MW07601

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 29, CONTINUED

TOTAL METALS AND CYANIDE
 WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW04501		SDG 90073	
MD = MATRIX DUPLICATE SAMPLE MW04501		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	598.8	17.4
ANTIMONY	ug/L	*8.1	200.0
ARSENIC	ug/L	*17.9	32.9
BARIUM	ug/L	97.1	1.9
BERYLLIUM	ug/L	100.9	10.4
CADMIUM	ug/L	86.9	200.0
CALCIUM	ug/L	NR	0.2
CHROMIUM	ug/L	98.6	14.7
COBALT	ug/L	96.2	15.7
COPPER	ug/L	97.6	9.6
IRON	ug/L	475.9	9.4
LEAD	ug/L	*56.6	*26.6
MAGNESIUM	ug/L	NR	9.2
MANGANESE	ug/L	94.8	19.5
MERCURY	ug/L	111.6	NC
NICKEL	ug/L	96.9	2.1
POTASSIUM	ug/L	NR	18.6
SELENIUM	ug/L	*64.0	NC
SILVER	ug/L	90.6	200.0
SODIUM	ug/L	NR	1.2
THALLIUM	ug/L	*69.7	NC
VANADIUM	ug/L	95.0	9.8
ZINC	ug/L	96.7	12.2
CYANIDE	ug/L	98.2	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90073: MW0012EB, MW4101, MW4201, MW4501, MW5201, MW5301, MW5801, MW5901

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limits applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 29, CONTINUED

TOTAL METALS AND CYANIDE
 WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW03601		SDG 90076	
MD = MATRIX DUPLICATE SAMPLE MW03601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	1439	3.6
ANTIMONY	ug/L	88.3	NC
ARSENIC	ug/L	105.6	7.9
BARIUM	ug/L	94.8	0.9
BERYLLIUM	ug/L	100.5	13.0
CADMIUM	ug/L	104.7	NC
CALCIUM	ug/L	NR	1.1
CHROMIUM	ug/L	102.5	4.2
COBALT	ug/L	99.0	11.2
COPPER	ug/L	99.6	28.0
IRON	ug/L	286.8	0.4
LEAD	ug/L	96.1	1.3
MAGNESIUM	ug/L	NR	1.4
MANGANESE	ug/L	98.2	0.8
MERCURY	ug/L	NR	NR
NICKEL	ug/L	112.2	NC
POTASSIUM	ug/L	NR	16.1
SELENIUM	ug/L	94.0	NC
SILVER	ug/L	84.6	NC
SODIUM	ug/L	NR	1.2
THALLIUM	ug/L	90.5	NC
VANADIUM	ug/L	93.7	10.2
ZINC	ug/L	101.6	3.6
CYANIDE	ug/L	NR	NR

MS = MATRIX SPIKE SAMPLE MW03501		SDG 90076	
MD = MATRIX DUPLICATE SAMPLE MW03501		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	123.5	10.3

MS = MATRIX SPIKE SAMPLE MW04601		SDG 90076	
MD = MATRIX DUPLICATE SAMPLE MW04601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	89.7	NC

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90076: MW00013EB, MW04601, MW03901, MW04001, MW08001, MW08101, MW01001,
 MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001,
 MW05101, MW05401, MW05401RP

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 29, CONTINUED

TOTAL METALS AND CYANIDE
 WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW06101 MD = MATRIX DUPLICATE SAMPLE MW06101 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90078	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	1513.5	7.1
ANTIMONY	ug/L	*68.7	200.0
ARSENIC	ug/L	*73.2	3.6
BARIUM	ug/L	100.7	1.1
BERYLLIUM	ug/L	102.1	0.4
CADMIUM	ug/L	87.7	53.3
CALCIUM	ug/L	NR	0.7
CHROMIUM	ug/L	113.9	8.7
COBALT	ug/L	101.8	33.4
COPPER	ug/L	96.9	8.4
IRON	ug/L	698.1	1.3
LEAD	ug/L	*70.0	7.5
MAGNESIUM	ug/L	NR	1.1
MANGANESE	ug/L	96.7	1.7
MERCURY	ug/L	114.0	200.0
NICKEL	ug/L	98.3	61.8
POTASSIUM	ug/L	NR	4.4
SELENIUM	ug/L	95.0	NC
SILVER	ug/L	98.6	NC
SODIUM	ug/L	NR	0.2
THALLIUM	ug/L	84.2	NC
VANADIUM	ug/L	101.7	6.2
ZINC	ug/L	98.4	7.9
CYANIDE	ug/L	102.0	NC

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90078: MW00014EB, MW08201, MW08301, MW00901, MW07001, MW07101,
 MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limits applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 29, CONTINUED

TOTAL METALS AND CYANIDE
 WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW05601		SDG 90082	
MD = MATRIX DUPLICATE SAMPLE MW05601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	119.6	26.2
ANTIMONY	ug/L	94.4	37.4
ARSENIC	ug/L	111.4	NC
BARIUM	ug/L	96.0	2.7
BERYLLIUM	ug/L	99.0	NC
CADMIUM	ug/L	95.7	NC
CALCIUM	ug/L	NR	0.7
CHROMIUM	ug/L	95.3	NC
COBALT	ug/L	93.7	NC
COPPER	ug/L	99.6	200.0
IRON	ug/L	114.2	1.9
LEAD	ug/L	101.3	NC
MAGNESIUM	ug/L	NR	1.1
MANGANESE	ug/L	93.5	0.8
MERCURY	ug/L	114.1	NC
NICKEL	ug/L	95.2	NC
POTASSIUM	ug/L	NR	47.0
SELENIUM	ug/L	100.0	NC
SILVER	ug/L	*70.1	NC
SODIUM	ug/L	NR	0.8
THALLIUM	ug/L	87.9	NC
VANADIUM	ug/L	90.1	200.0
ZINC	ug/L	96.7	20.7
CYANIDE	ug/L	103.3	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90082: MW00016EB, MW00016TB, MW05601, MW05601RP, MW06301, MW06401, MW07301,
 MW07401, MW05701, MW06001, MW06501, MW07501, MW05501

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limits applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 29, CONTINUED

TOTAL METALS AND CYANIDE
 WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW01101		SDG 90083	
MD = MATRIX DUPLICATE SAMPLE MW01101		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	96.9	7.8
ANTIMONY	ug/L	99.2	200.0
ARSENIC	ug/L	109.3	NC
BARIUM	ug/L	96.0	1.3
BERYLLIUM	ug/L	97.6	NC
CADMIUM	ug/L	91.3	4.9
CALCIUM	ug/L	NR	0.3
CHROMIUM	ug/L	94.7	200.0
COBALT	ug/L	93.0	NC
COPPER	ug/L	98.8	NC
IRON	ug/L	96.7	19.5
LEAD	ug/L	88.8	NC
MAGNESIUM	ug/L	NR	0.1
MANGANESE	ug/L	93.1	7.9
MERCURY	ug/L	NR	NR
NICKEL	ug/L	95.7	NC
POTASSIUM	ug/L	NR	0.1
SELENIUM	ug/L	92.0	NC
SILVER	ug/L	*66.9	NC
SODIUM	ug/L	NR	0.2
THALLIUM	ug/L	101.2	200.0
VANADIUM	ug/L	89.2	200.0
ZINC	ug/L	97.0	0.8
CYANIDE	ug/L	102.7	NC

MS = MATRIX SPIKE SAMPLE MW07901RP		SDG 90083	
MD = MATRIX DUPLICATE SAMPLE MW07901RP		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	*136.8	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90083: MW00017EB, MW00018EB, MW00801, MW01101, MW03701, MW03801, MW04301,
 MW04401, MW06801, MW06901, MW06901RP, MW07801, MW07901, MW07901RP

COMPOUND	ADVISORY LIMITS	RPD
	%R WATER	WATER
ALL COMPOUNDS	75%-125%	+/-20 OR +/-CRDL

+/- CRDL = RPD Limits applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 29, CONTINUED

TOTAL METALS AND CYANIDE
 WATER AND GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW00601		SDG 90086	
MD = MATRIX DUPLICATE SAMPLE MW00601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	96.1	NC

MS = MATRIX SPIKE SAMPLE MW00601		SDG 90086	
MD = MATRIX DUPLICATE SAMPLE MW00601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	96.1	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90086: MW00018EB, MW00601, MW03701, MW03801

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 30

**DISSOLVED METALS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE OU-1**

MS = MATRIX SPIKE SAMPLE MW06601 MD = MATRIX DUPLICATE SAMPLE MW06601 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90074	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	116.7	4.0
ANTIMONY	ug/L	97.5	NC
ARSENIC	ug/L	97.4	NC
BARIUM	ug/L	95.6	1.3
BERYLLIUM	ug/L	98.1	NC
CADMIUM	ug/L	105.6	200.0
CALCIUM	ug/L	NR	0.5
CHROMIUM	ug/L	97.0	200.0
COBALT	ug/L	98.6	NC
COPPER	ug/L	98.5	NC
IRON	ug/L	105.6	1.9
LEAD	ug/L	91.2	NC
MAGNESIUM	ug/L	NR	0.1
MANGANESE	ug/L	98.4	10.7
MERCURY	ug/L	NR	NR
NICKEL	ug/L	100.8	NC
POTASSIUM	ug/L	NR	11.4
SELENIUM	ug/L	95.0	NC
SILVER	ug/L	97.2	NC
SODIUM	ug/L	NR	2.0
THALLIUM	ug/L	90.6	NC
VANADIUM	ug/L	92.4	200.0
ZINC	ug/L	99.1	1.3
CYANIDE	ug/L	NR	NR

MS = MATRIX SPIKE SAMPLE MW07601 MD = MATRIX DUPLICATE SAMPLE MW7601 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90074	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	*140.5	4.1

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90074: MW00003FB, MW0011EB, MW06601, MW07601

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 30, CONTINUED

DISSOLVED METALS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE OU-1

MS = MATRIX SPIKE SAMPLE MW04501 MD = MATRIX DUPLICATE SAMPLE MW04501 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90075	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	678.6	6.4
ANTIMONY	ug/L	*58.8	NC
ARSENIC	ug/L	*64.7	26.0
BARIUM	ug/L	96.6	1.6
BERYLLIUM	ug/L	99.4	5.9
CADMIUM	ug/L	99.2	6.4
CALCIUM	ug/L	NR	0.6
CHROMIUM	ug/L	98.9	4.6
COBALT	ug/L	97.5	9.3
COPPER	ug/L	98.4	25.0
IRON	ug/L	217.4	3.3
LEAD	ug/L	79.0	11.0
MAGNESIUM	ug/L	NR	2.0
MANGANESE	ug/L	98.0	4.5
MERCURY	ug/L	107.6	NC
NICKEL	ug/L	99.1	2.5
POTASSIUM	ug/L	NR	5.8
SELENIUM	ug/L	91.0	NC
SILVER	ug/L	94.3	NC
SODIUM	ug/L	NR	1.3
THALLIUM	ug/L	*59.2	NC
VANADIUM	ug/L	92.6	0.8
ZINC	ug/L	98.8	2.5
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90075: MW00012EB, MW04101, MW04201, MW04501, MW04501RP, MW05201,
MW05301, MW05801, MW05901

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract

Required Detection Limit (CRDL)

TABLE 2 - 30, CONTINUED

DISSOLVED METALS

**GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE OU-1**

MS = MATRIX SPIKE SAMPLE MW05401RP		SDG 90077	
MD = MATRIX DUPLICATE SAMPLE MW05401RP		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	96.4	0.8
ANTIMONY	ug/L	94.9	NC
ARSENIC	ug/L	111.6	NC
BARIUM	ug/L	92.7	0.1
BERYLLIUM	ug/L	96.2	0.0
CADMIUM	ug/L	97.5	NC
CALCIUM	ug/L	NR	0.1
CHROMIUM	ug/L	95.7	200.0
COBALT	ug/L	95.6	200.0
COPPER	ug/L	96.4	NC
IRON	ug/L	81.4	0.1
LEAD	ug/L	97.0	200.0
MAGNESIUM	ug/L	NR	0.5
MANGANESE	ug/L	94.9	2.7
MERCURY	ug/L	NR	NR
NICKEL	ug/L	96.4	NC
POTASSIUM	ug/L	NR	6.3
SELENIUM	ug/L	84.0	NC
SILVER	ug/L	95.6	NC
SODIUM	ug/L	NR	0.0
THALLIUM	ug/L	81.0	NC
VANADIUM	ug/L	90.0	200.0
ZINC	ug/L	96.8	19.5
CYANIDE	ug/L	NR	NR

MS = MATRIX SPIKE SAMPLE MW03501		SDG 90077	
MD = MATRIX DUPLICATE SAMPLE MW03501		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	91.8	200.0

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90077: MW0013EB, MW00701, MW01001, MW03501, MW03601, MW03901,
MW04001, MW04601, MW04701, MW04801, MW04901, MW05001,
MW5101, MW05401, MW05401RP, MW08001, MW08101

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 30, CONTINUED

DISSOLVED METALS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE OU-1

MS = MATRIX SPIKE SAMPLE MW05601 MD = MATRIX DUPLICATE SAMPLE MW05601 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90081	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	93.4	200.0
ANTIMONY	ug/L	96.0	0.2
ARSENIC	ug/L	99.7	NC
BARIUM	ug/L	94.5	0.2
BERYLLIUM	ug/L	97.9	NC
CADMIUM	ug/L	88.6	NC
CALCIUM	ug/L	NR	0.2
CHROMIUM	ug/L	92.8	NC
COBALT	ug/L	93.3	NC
COPPER	ug/L	91.2	84.1
IRON	ug/L	97.1	0.2
LEAD	ug/L	93.8	NC
MAGNESIUM	ug/L	NR	0.3
MANGANESE	ug/L	92.4	0.2
MERCURY	ug/L	103.3	NC
NICKEL	ug/L	93.9	NC
POTASSIUM	ug/L	NR	32.1
SELENIUM	ug/L	102.0	NC
SILVER	ug/L	*70.8	NC
SODIUM	ug/L	NR	0.2
THALLIUM	ug/L	96.9	NC
VANADIUM	ug/L	89.3	NC
ZINC	ug/L	93.0	3.8
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90081: MW0016EB, MW05501, MW05601, MW05601RP, MW05701, MW06001,
MW06301, MW06401, MW06501, MW07301, MW07401, MW07501

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 30, CONTINUED

DISSOLVED METALS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE OU-1

MS = MATRIX SPIKE SAMPLE MW06801		SDG 90084	
MD = MATRIX DUPLICATE SAMPLE MW06801		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	93.7	5.1
ANTIMONY	ug/L	93.5	48.0
ARSENIC	ug/L	102.2	NC
BARIUM	ug/L	94.1	0.5
BERYLLIUM	ug/L	94.8	NC
CADMIUM	ug/L	88.5	NC
CALCIUM	ug/L	NR	0.8
CHROMIUM	ug/L	94.2	NC
COBALT	ug/L	92.6	NC
COPPER	ug/L	97.2	NC
IRON	ug/L	92.2	1.2
LEAD	ug/L	88.3	3.5
MAGNESIUM	ug/L	NR	0.3
MANGANESE	ug/L	91.6	3.0
MERCURY	ug/L	NR	NR
NICKEL	ug/L	95.3	NC
POTASSIUM	ug/L	NR	9.8
SELENIUM	ug/L	79.0	NC
SILVER	ug/L	*66.5	NC
SODIUM	ug/L	NR	0.4
THALLIUM	ug/L	93.3	NC
VANADIUM	ug/L	87.7	NC
ZINC	ug/L	94.4	6.7
CYANIDE	ug/L	NR	NR

MS = MATRIX SPIKE SAMPLE MW01101		SDG 90084	
MD = MATRIX DUPLICATE SAMPLE MW01101		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	94.0	NC

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90084: MW00017EB, MW00801, MW01101, MW04301, MW04401, MW06801,
MW06901, MW06901RP, MW07801, MW07901, MW07901RP

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 30, CONTINUED

DISSOLVED METALS

GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE OU-1

MS = MATRIX SPIKE SAMPLE MW00601		SDG 90087	
MD = MATRIX DUPLICATE SAMPLE MW00601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	90.7	66.0
ANTIMONY	ug/L	100.3	200.0
ARSENIC	ug/L	112.0	29.3
BARIIUM	ug/L	93.7	1.1
BERYLLIUM	ug/L	95.3	NC
CADMIUM	ug/L	88.9	NC
CALCIUM	ug/L	NR	0.3
CHROMIUM	ug/L	93.5	200.0
COBALT	ug/L	91.8	NC
COPPER	ug/L	96.9	200.0
IRON	ug/L	91.8	119.3
LEAD	ug/L	100.6	NC
MAGNESIUM	ug/L	NR	0.5
MANGANESE	ug/L	91.4	8.9
MERCURY	ug/L	NR	NR
NICKEL	ug/L	93.8	NC
POTASSIUM	ug/L	NR	1.7
SELENIUM	ug/L	93.0	NC
SILVER	ug/L	*62.4	NC
SODIUM	ug/L	NR	0.4
THALLIUM	ug/L	113.9	NC
VANADIUM	ug/L	87.5	NC
ZINC	ug/L	93.7	3.2
CYANIDE	ug/L	NR	NR

MS = MATRIX SPIKE SAMPLE MW03801		SDG 90087	
MD = MATRIX DUPLICATE SAMPLE MW03801		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	113.5	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90087: MW00018EB, MW00601, MW03701, MW03801

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 30, CONTINUED

DISSOLVED METALS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE OU-1

MS = MATRIX SPIKE SAMPLE MW06101 MD = MATRIX DUPLICATE SAMPLE MW06101 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90079	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	114.3	0.6
ANTIMONY	ug/L	99.1	0.5
ARSENIC	ug/L	101.0	NC
BARIUM	ug/L	99.9	0.5
BERYLLIUM	ug/L	100.9	200.0
CADMIUM	ug/L	89.3	58.8
CALCIUM	ug/L	NR	0.0
CHROMIUM	ug/L	99.9	NC
COBALT	ug/L	102.2	11.2
COPPER	ug/L	97.2	84.1
IRON	ug/L	27.1	0.1
LEAD	ug/L	82.0	47.6
MAGNESIUM	ug/L	NR	0.1
MANGANESE	ug/L	96.6	0.0
MERCURY	ug/L	87.0	NC
NICKEL	ug/L	98.5	NC
POTASSIUM	ug/L	NR	1.4
SELENIUM	ug/L	80.5	NC
SILVER	ug/L	100.1	NC
SODIUM	ug/L	NR	0.3
THALLIUM	ug/L	92.2	NC
VANADIUM	ug/L	96.8	NC
ZINC	ug/L	97.5	1.8
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90079: MW0014EB, MW00901, MW06101, MW06201, MW06701, MW07001,
MW07101, MW07101RP, MW07201, MW07701, MW08201, MW08301

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 31

GC/MS VOLATILE ORGANICS COMPOUNDS
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 - NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW03601 MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG 03501 (90100)		
		MS	MSD	
		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	96	102	6
TRICHLOROETHENE	ug/L	100	102	2
BENZENE	ug/L	98	100	2
TOLUENE	ug/L	96	94	2
CHLOROBENZENE	ug/L	98	96	2

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

03501 (90100): SW03501, SW03601, SW03601RP

MS = MATRIX SPIKE SAMPLE SW04301RP MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG 90133		
		MS	MSD	
		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	99	101	2
TRICHLOROETHENE	ug/L	101	107	6
BENZENE	ug/L	105	109	4
TOLUENE	ug/L	97	104	7
CHLOROBENZENE	ug/L	98	103	5

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90109: SW03401, SW05101, SW05601
 90115: SW05001, SW05401, SW05401RP
 90118: SW05701
 90120: SW03801
 90129: SW03701
 90133: SW04301, SW04301RP
 90136: SW04101, SW04201
 90138: SW04001, SW05801
 90141: SW06101, SW06201
 90147: SW06001, SW05901

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
1,1-DICHLOROETHENE	61%-145%		14
TRICHLOROETHENE	71%-120%		14
BENZENE	76%-127%		11
TOLUENE	76%-125%		13
CHLOROBENZENE	75%-130%		13

TABLE 2 - 32

**SEMIVOLATILE ORGANICS COMPOUNDS
SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE SW03601		SDG 03501 (90100)		
		MS	MSD			
SVOA COMPOUNDS		UNITS	%R	%R	%RPD	
PHENOL	ug/L	65	67	3		
2-CHLOROPHENOL	ug/L	64	64	0		
1,4-DICHLOROBENZENE	ug/L	60	58	3		
N-NITROSO-DI-N-PROP.(1)	ug/L	62	60	3		
1,2,4-TRICHLOROBENZENE	ug/L	62	64	3		
4-CHLORO-3-METHYLPHENOL	ug/L	69	71	3		
ACENAPHTHENE	ug/L	66	68	3		
4-NITROPHENOL	ug/L	51	47	8		
2,4-DINITROTOLUENE	ug/L	68	70	3		
PENTACHLOROPHENOL	ug/L	89	89	0		
PYRENE	ug/L	80	82	2		

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

03501 (90100): SW03501, SW03601, SW03601RP

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
PHENOL	12%-89%		42
2-CHLOROPHENOL	27%-123%		40
1,4-DICHLOROBENZENE	36%-97%		28
N-NITROSO-DI-N-PROP.(1)	41%-116%		38
1,2,4-TRICHLOROBENZENE	39%-98%		28
4-CHLORO-3-METHYLPHENOL	23%-97%		42
ACENAPHTHENE	46%-118%		31
4-NITROPHENOL	10%-80%		50
2,4-DINITROTOLUENE	24%-96%		38
PENTACHLOROPHENOL	9%-103%		50
PYRENE	26%-127%		31

TABLE 2 - 32, CONTINUED

SEMIVOLATILE ORGANICS COMPOUNDS
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG 90133		
		MS	MSD	
SVOA COMPOUNDS		%R	%R	%RPD
	UNITS			
PHENOL	ug/L	84	80	5
2-CHLOROPHENOL	ug/L	85	80	6
1,4-DICHLOROBENZENE	ug/L	79	74	7
N-NITROSO-DI-N-PROP.(1)	ug/L	86	82	5
1,2,4-TRICHLOROBENZENE	ug/L	78	74	5
4-CHLORO-3-METHYLPHENOL	ug/L	90	87	3
ACENAPHTHENE	ug/L	82	78	5
4-NITROPHENOL	ug/L	*93	*90	3
2,4-DINITROTOLUENE	ug/L	88	83	6
PENTACHLOROPHENOL	ug/L	99	94	5
PYRENE	ug/L	68	65	5

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90109: SW03401, SW05101, SW05601
- 90115: SW05001, SW05401, SW05401RP
- 90118: SW05701
- 90120: SW03801
- 90129: SW03701
- 90133: SW04301, SW04301RP
- 90136: SW04101, SW04201
- 90138: SW04001, SW05801
- 90141: SW06101, SW06201
- 90147: SW06001, SW05901

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
PHENOL	12%-89%		42
2-CHLOROPHENOL	27%-123%		40
1,4-DICHLOROBENZENE	36%-97%		28
N-NITROSO-DI-N-PROP.(1)	41%-116%		38
1,2,4-TRICHLOROBENZENE	39%-98%		28
4-CHLORO-3-METHYLPHENOL	23%-97%		42
ACENAPHTHENE	46%-118%		31
4-NITROPHENOL	10%-80%		50
2,4-DINITROTOLUENE	24%-96%		38
PENTACHLOROPHENOL	9%-103%		50
PYRENE	26%-127%		31

TABLE 2 - 33

**PESTICIDES/PCBS
SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE SW03601RP</i>		SDG 90100 (03501)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	78	82	5
Heptachlor	ug/L	65	69	6
Aldrin	ug/L	66	70	6
Dieldrin	ug/L	97	102	5
Endrin	ug/L	90	94	4
4,4'-DDT	ug/L	84	89	6

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90100 (03501): SW03501, SW03601, SW03601RP

MS = MATRIX SPIKE <i>SAMPLE SW04301RP</i>		SDG 90133		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	76	100	*27
Heptachlor	ug/L	53	71	*29
Aldrin	ug/L	53	69	*26
Dieldrin	ug/L	97	117	*19
Endrin	ug/L	90	107	17
4,4'-DDT	ug/L	85	98	14

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90109: SW03401, SW05101, SW05601
 90115: SW05001, SW05401, SW05401RP
 90118: SW05701
 90120: SW03801
 90129: SW03701
 90133: SW04301, SW04301RP
 90136: SW04101, SW04201
 90138: SW04001, SW05801
 90141: SW06101, SW06201
 90147: SW06001, SW05901

	% R WATER		WATER
gamma-BHC(Lindane)	56%-123%		15
HEPTACHLOR	40%-131%		20
ALDRIN	40%-120%		22
DIELDRIN	52%-126%		18
ENDRIN	56%-121%		21
4,4'-DDT	38%-127%		27

TABLE 2 - 34

TOTAL METALS AND CYANIDE
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW03601 MD = MATRIX DUPLICATE SAMPLE SW03601 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90100	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	102.5	11.30
ANTIMONY	ug/L	104.2	NC
ARSENIC	ug/L	99.5	23.20
BARIIUM	ug/L	98.5	2.30
BERYLLIUM	ug/L	100.5	NC
CADMIUM	ug/L	101.2	NC
CALCIUM	ug/L	NR	3.40
CHROMIUM	ug/L	95.6	NC
COBALT	ug/L	98.6	NC
COPPER	ug/L	101.1	28.70
IRON	ug/L	101.8	2.50
LEAD	ug/L	96.5	200.00
MAGNESIUM	ug/L	NR	2.90
MANGANESE	ug/L	98.8	1.60
MERCURY	ug/L	103.8	NC
NICKEL	ug/L	97.0	NC
POTASSIUM	ug/L	NR	4.00
SELENIUM	ug/L	101.0	NC
SILVER	ug/L	95.5	NC
SODIUM	ug/L	NR	2.60
THALLIUM	ug/L	*39.6	NC
VANADIUM	ug/L	89.1	NC
ZINC	ug/L	100.1	2.00
CYANIDE	ug/L	102.7	NC

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90100: SW00004FB, SW00019EB, SW03501, SW03601, SW03601RP

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 34, CONTINUED

TOTAL METALS AND CYANIDE
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW05401 MD = MATRIX DUPLICATE SAMPLE SW05401 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90115	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	99.3	6.50
ANTIMONY	ug/L	102.0	NC
ARSENIC	ug/L	93.5	NC
BARIUM	ug/L	98.4	4.10
BERYLLIUM	ug/L	102.2	NC
CADMIUM	ug/L	97.2	NC
CALCIUM	ug/L	NR	2.30
CHROMIUM	ug/L	99.0	NC
COBALT	ug/L	101.2	NC
COPPER	ug/L	99.4	200.00
IRON	ug/L	98.1	2.60
LEAD	ug/L	91.9	29.60
MAGNESIUM	ug/L	NR	2.80
MANGANESE	ug/L	98.7	3.60
MERCURY	ug/L	NR	NR
NICKEL	ug/L	99.8	NC
POTASSIUM	ug/L	NR	5.00
SELENIUM	ug/L	120.0	NC
SILVER	ug/L	95.6	NC
SODIUM	ug/L	NR	3.10
THALLIUM	ug/L	90.7	NC
VANADIUM	ug/L	95.7	NC
ZINC	ug/L	98.4	0.40
CYANIDE	ug/L	NR	NR

MS = MATRIX SPIKE SAMPLE SW05001 MD = MATRIX DUPLICATE SAMPLE SW05001 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90115	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	114.7	NC

MS = MATRIX SPIKE SAMPLE SW05401RP MD = MATRIX DUPLICATE SAMPLE SW05401RP RPD = RELATIVE PERCENT DIFFERENCE		SDG 90115	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	96.9	NC

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS -

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90115: SW00021EB, SW05401RP, SW05401, SW05001

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 34, CONTINUED

TOTAL METALS AND CYANIDE
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW03801		SDG 90120	
MD = MATRIX DUPLICATE SAMPLE SW03801		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	91.7	NC
MERCURY	ug/L	99.3	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90120: SW03801, SW00023EB

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 34, CONTINUED

TOTAL METALS AND CYANIDE
 SURFACEWATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW03401		SDG 90109	
MD = MATRIX DUPLICATE SAMPLE SW03401		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	97.9	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90109: SW00020EB, SW03401, SW05101, SW05601

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 34, CONTINUED

TOTAL METALS AND CYANIDE
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE	SAMPLE SW05701	SDG 90118	
MD = MATRIX DUPLICATE	SAMPLE SW05701	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	96.0	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90118: SW00022EB, SW05701

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 34, CONTINUED

TOTAL METALS AND CYANIDE
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW04301 MD = MATRIX DUPLICATE SAMPLE SW04301 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90133	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINIUM	ug/L	108.4	11.70
ANTIMONY	ug/L	107.8	NC
ARSENIC	ug/L	112.5	NC
BARIUM	ug/L	107.7	2.10
BERYLLIUM	ug/L	109.0	NC
CADMIUM	ug/L	113.4	NC
CALCIUM	ug/L	NR	10.00
CHROMIUM	ug/L	104.5	NC
COBALT	ug/L	104.2	NC
COPPER	ug/L	110.1	200.00
IRON	ug/L	111.8	17.60
LEAD	ug/L	82.7	39.30
MAGNESIUM	ug/L	NR	3.50
MANGANESE	ug/L	104.1	4.00
MERCURY	ug/L	107.1	NC
NICKEL	ug/L	104.8	NC
POTASSIUM	ug/L	NR	6.70
SELENIUM	ug/L	*61.0	57.60
SILVER	ug/L	97.6	NC
SODIUM	ug/L	NR	5.40
THALLIUM	ug/L	84.6	NC
VANADIUM	ug/L	98.4	NC
ZINC	ug/L	103.1	9.30
CYANIDE	ug/L	98.8	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90133: SW00028EB, SW04301, SW04301RP

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 34, CONTINUED

TOTAL METALS AND CYANIDE
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW03701		SDG 90129	
MD = MATRIX DUPLICATE SAMPLE SW03701		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	93.7	200.00

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90129: SW03701, SW00025EB

MS = MATRIX SPIKE SAMPLE SW04601		SDG 90123	
MD = MATRIX DUPLICATE SAMPLE SW04601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	95.7	200.00

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90123: SW05401, SW05501, SW00024EB, SW04601, SW04701

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 34, CONTINUED

TOTAL METALS AND CYANIDE
 SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW06101 MD = MATRIX DUPLICATE SAMPLE SW06101 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90141	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	99.0	10.10
ANTIMONY	ug/L	97.5	NC
ARSENIC	ug/L	104.2	18.20
BARIUM	ug/L	97.5	0.00
BERYLLIUM	ug/L	101.7	NC
CADMIUM	ug/L	89.3	200.00
CALCIUM	ug/L	NR	0.10
CHROMIUM	ug/L	100.2	NC
COBALT	ug/L	99.7	NC
COPPER	ug/L	96.1	7.60
IRON	ug/L	100.2	1.00
LEAD	ug/L	95.5	25.00
MAGNESIUM	ug/L	NR	0.40
MANGANESE	ug/L	93.9	7.70
MERCURY	ug/L	100.0	NC
NICKEL	ug/L	101.0	NC
POTASSIUM	ug/L	NR	4.40
SELENIUM	ug/L	114.4	NC
SILVER	ug/L	98.5	NC
SODIUM	ug/L	NR	0.10
THALLIUM	ug/L	98.0	NC
VANADIUM	ug/L	94.2	22.90
ZINC	ug/L	96.4	6.00
CYANIDE	ug/L	96.0	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90141: SW06101, SW06201, SW00035EB
 90147: SW06001, SW05901, SW00037EB

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 35

DISSOLVED METALS

SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW04601 MD = MATRIX DUPLICATE SAMPLE SW04601 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90124	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	93.6	1.5
ANTIMONY	ug/L	101.1	200.0
ARSENIC	ug/L	100.0	0.7
BARIUM	ug/L	93.3	3.8
BERYLLIUM	ug/L	94.2	NC
CADMIUM	ug/L	96.7	NC
CALCIUM	ug/L	NR	±.0
CHROMIUM	ug/L	91.4	NC
COBALT	ug/L	92.1	NC
COPPER	ug/L	96.9	200.0
IRON	ug/L	92.0	0.8
LEAD	ug/L	*0	NC
MAGNESIUM	ug/L	NR	1.4
MANGANESE	ug/L	91.1	0.2
MERCURY	ug/L	NR	NR
NICKEL	ug/L	88.6	NC
POTASSIUM	ug/L	NR	1.4
SELENIUM	ug/L	*60	NC
SILVER	ug/L	90.6	NC
SODIUM	ug/L	NR	4.0
THALLIUM	ug/L	*51.7	NC
VANADIUM	ug/L	87.8	NC
ZINC	ug/L	93.8	10.1
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90124: SW00024EB, SW04501, SW04601, SW04701, SW05501

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract Required Detection Limit (CRDL)

TABLE 2 - 35, CONTINUED

DISSOLVED METALS

SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW05101 MD = MATRIX DUPLICATE SAMPLE SW05101 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90110	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	94.0	2.4
ANTIMONY	ug/L	96.2	NC
ARSENIC	ug/L	123.1	4.4
BARIUM	ug/L	94.6	0.5
BERYLLIUM	ug/L	96.1	NC
CADMIUM	ug/L	91.6	NC
CALCIUM	ug/L	NR	-0.4
CHROMIUM	ug/L	93.4	NC
COBALT	ug/L	93.0	NC
COPPER	ug/L	96.0	200.0
IRON	ug/L	101.2	0.4
LEAD	ug/L	97.7	NC
MAGNESIUM	ug/L	NR	0.5
MANGANESE	ug/L	92.7	0.1
MERCURY	ug/L	NR	NR
NICKEL	ug/L	94.0	NC
POTASSIUM	ug/L	NR	4.4
SELENIUM	ug/L	121.0	NC
SILVER	ug/L	91.1	NC
SODIUM	ug/L	NR	0.6
THALLIUM	ug/L	*74.8	NC
VANADIUM	ug/L	88.2	200.0
ZINC	ug/L	91.6	7.8
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90110: SW00020EB, SW03401, SW05101, SW05601

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract Required Detection Limit (CRDL)

TABLE 2 - 35, CONTINUED

DISSOLVED METALS

SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW03601		SDG 90105	
MD = MATRIX DUPLICATE SAMPLE SW03601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	93.8	0.4
ANTIMONY	ug/L	103.0	NC
ARSENIC	ug/L	107.4	NC
BARIUM	ug/L	94.1	0.1
BERYLLIUM	ug/L	96.7	NC
CADMIUM	ug/L	99.5	NC
CALCIUM	ug/L	NR	0:1
CHROMIUM	ug/L	92.2	NC
COBALT	ug/L	94.0	NC
COPPER	ug/L	96.4	23.0
IRON	ug/L	94.1	0.1
LEAD	ug/L	97.0	13.7
MAGNESIUM	ug/L	NR	0.1
MANGANESE	ug/L	93.4	0.8
MERCURY	ug/L	109.0	200.0
NICKEL	ug/L	93.9	NC
POTASSIUM	ug/L	NR	3.2
SELENIUM	ug/L	92.0	NC
SILVER	ug/L	91.9	NC
SODIUM	ug/L	NR	0.2
THALLIUM	ug/L	*41.9	200.0
VANADIUM	ug/L	84.3	NC
ZINC	ug/L	94.4	5.7
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90105: SW00004FB, SW00019EB, SW03501, SW03601, SW03601RP

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract Required Detection Limit (CRDL)

TABLE 2 - 35, CONTINUED

DISSOLVED METALS

SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE	SAMPLE SW03801	SDG 90119	
MD = MATRIX DUPLICATE	SAMPLE SW03801	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	ug/L	96.1	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90119: SW00023EB, SW03801

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 35, CONTINUED

DISSOLVED METALS

SURFACE WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW04301 MD = MATRIX DUPLICATE SAMPLE SW04301 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90135	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	95.8	9.3
ANTIMONY	ug/L	100.7	NC
ARSENIC	ug/L	113.6	NC
BARIUM	ug/L	99.4	4.3
BERYLLIUM	ug/L	102.9	NC
CADMIUM	ug/L	94.1	NC
CALCIUM	ug/L	NR	4.0
CHROMIUM	ug/L	98.6	NC
COBALT	ug/L	99.7	NC
COPPER	ug/L	117.3	NC
IRON	ug/L	98.0	3.4
LEAD	ug/L	75.6	NC
MAGNESIUM	ug/L	NR	4.4
MANGANESE	ug/L	98.3	3.5
MERCURY	ug/L	81.1	NC
NICKEL	ug/L	102.5	NC
POTASSIUM	ug/L	NR	1.7
SELENIUM	ug/L	106.0	NC
SILVER	ug/L	93.4	NC
SODIUM	ug/L	NR	5.1
THALLIUM	ug/L	78.8	NC
VANADIUM	ug/L	91.6	NC
ZINC	ug/L	99.9	NC
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90135: SW00028EB, SW04301, SW04301RP

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 36

**TOTAL PETROLEUM HYDROCARBONS
SURFACE WATER SAMPLE MATRIX SPIKE/ MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE	SAMPLE SW03601S	SDG 90100 (03501)	
MD = MATRIX DUPLICATE	SAMPLE SW03601D	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH RESULTS	UNITS		
TOTAL PETROLEUM HYDROCARBONS	mg/L	96.5	NA

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.
NA DENOTES THAT A DUPLICATE ANALYSIS WAS NOT PERFORMED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90100: SW03601, SW03601RP, SW03501

COMPOUND	ADVISORY LIMITS	RPD
	%R WATER	WATER
ALL COMPOUNDS	80-120	+/-20%

TABLE 2 - 36, CONTINUED

-TOTAL PETROLEUM HYDROCARBONS
 SURFACE WATER SAMPLE MATRIX SPIKE/ MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SW04301		SDG 90133	
MD = MATRIX DUPLICATE SAMPLE SW04301		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH RESULTS	UNITS		
TOTAL PETROLEUM HYDROCARBONS	mg/L	80.7	NA

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.
 NA DENOTES THAT A DUPLICATE ANALYSIS WAS NOT PERFORMED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90109: SW03401, SW05101, SW05601
- 90115: SW05001, SW05401, SW05401RP
- 90118: SW05701
- 90120: SW03801
- 90129: SW03701
- 90133: SW04301, SW04301RP
- 90136: SW04101, SW04201
- 90138: SW04001, SW05801
- 90141: SW06101, SW06201
- 90147: SW06001, SW05901

COMPOUND	ADVISORY LIMITS	RPD
	%R WATER	WATER
ALL COMPOUNDS	80-120	+/-20%

TABLE 2 - 37

GC/MS VOLATILE ORGANICS COMPOUNDS

CONE PENETROMETER WATER SAMPLE MATRIX SPIKE\MATRIX SPIKE DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE <i>SAMPLE CW1702RP</i>		SDG 90143		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	110	111	1
TRICHLOROETHENE	ug/L	102	101	1
BENZENE	ug/L	107	107	0
TOLUENE	ug/L	106	107	1
CHLOROBENZENE	ug/L	109	108	1

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90143: CW01601, CW01701, CW01702, CW01702RP

90144: CW01401, CW01402, CW01501, CW01502, CW01602

MS = MATRIX SPIKE <i>SAMPLE CW04402</i>		SDG 90160		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	94	103	9
TRICHLOROETHENE	ug/L	95	108	13
BENZENE	ug/L	92	104	*12
TOLUENE	ug/L	91	103	12
CHLOROBENZENE	ug/L	99	112	12

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90160: CW04402

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
1,1-DICHLOROETHENE	61%-145%		14
TRICHLOROETHENE	71%-120%		14
BENZENE	76%-127%		11
TOLUENE	76%-125%		13
CHLOROBENZENE	75%-130%		13

TABLE 2 - 37, CONTINUED

GC/MS VOLATILE ORGANICS COMPOUNDS

CONE PENETROMETER WATER SAMPLE MATRIX SPIKE\MATRIX SPIKE DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE <i>SAMPLE CW07701DL</i>		SDG 90176		
		MS	MSD	
MSD = MATRIX SPIKE DUPLICATE		%R	%R	%RPD
RPD = RELATIVE PERCENT DIFFERENCE				
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	92	93	1
TRICHLOROETHENE	ug/L	111	111	0
BENZENE	ug/L	100	101	1
TOLUENE	ug/L	97	96	1
CHLOROBENZENE	ug/L	92	92	0

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90176: CW07701, CW07701DL, CW07801, CW07801DL, CW07801DUP,
CW08101, CW05101, CW05102

MS = MATRIX SPIKE <i>SAMPLE JXCW09001</i>		SDG 90195		
		MS	MSD	
MSD = MATRIX SPIKE DUPLICATE		%R	%R	%RPD
RPD = RELATIVE PERCENT DIFFERENCE				
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	99	95	4
TRICHLOROETHENE	ug/L	82	94	14
BENZENE	ug/L	101	104	3
TOLUENE	ug/L	107	109	2
CHLOROBENZENE	ug/L	116	119	3

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90195: JXCW09001

COMPOUND	ADVISORY LIMITS	RPD
	%R WATER	WATER
1,1-DICHLOROETHENE	61%-145%	14
TRICHLOROETHENE	71%-120%	14
BENZENE	76%-127%	11
TOLUENE	76%-125%	13
CHLOROBENZENE	75%-130%	13

TABLE 2 - 38

GC/MS VOLATILE ORGANICS COMPOUNDS
 SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SB05001		SDG 90026		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/Kg	139	105	*28
TRICHLOROETHENE	ug/Kg	76	75	1
BENZENE	ug/Kg	101	100	1
TOLUENE	ug/Kg	101	98	3
CHLOROBENZENE	ug/Kg	104	101	3

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90026: SB05001, SB05001RP
- 90027: SB04201, SB04202, SB04601, SB05002
- 90028: SB04602, SB05601, SB06401, SB07401, SB08301, SB08302
- 90029: SB03801, SB03802, SB05602
- 90030: SB07402
- 90031: SB04001, SB06402
- 90032: SB03601, SB03601RP, SB03602, SB04002

MS = MATRIX SPIKE SAMPLE SB06401		SDG 02EB		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/Kg	100	105	5
TRICHLOROETHENE	ug/Kg	102	102	0
BENZENE	ug/Kg	100	103	3
TOLUENE	ug/Kg	117	114	2
CHLOROBENZENE	ug/Kg	102	105	3

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90026: SB05001, SB05001RP
- 90027: SB04201, SB04202, SB04601, SB05002
- 90028: SB04602, SB05601, SB06401, SB07401, SB08301, SB08302
- 90029: SB03801, SB03802, SB05602
- 90030: SB07402
- 90031: SB04001, SB06402
- 90032: SB03601, SB03601RP, SB03602, SB04002

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
1,1-DICHLOROETHENE	59%-172%		22
TRICHLOROETHENE	62%-137%		24
BENZENE	66%-142%		21
TOLUENE	59%-139%		21
CHLOROBENZENE	60%-133%		21

TABLE 2 - 38, CONTINUED

GC/MS VOLATILE ORGANICS COMPOUNDS
 SOIL SAMPLE MATRIX SPIKE\MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SB06801		SDG 90065		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/Kg	128	142	10
TRICHLOROETHENE	ug/Kg	120	134	11
BENZENE	ug/Kg	116	130	11
TOLUENE	ug/Kg	124	*140	12
CHLOROBENZENE	ug/Kg	121	*135	11

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90065: SB06801, SB06801RP, SB06403
 90067: SB05701, SB06501

MS = MATRIX SPIKE SAMPLE SB03601		SDG 03801		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/Kg	111	107	4
TRICHLOROETHENE	ug/Kg	102	102	0
BENZENE	ug/Kg	98	96	2
TOLUENE	ug/Kg	117	106	10
CHLOROBENZENE	ug/Kg	109	104	5

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG 03801

90029: SB03801, SB03802, SB05602
 90030: SB07402
 90031: SB04001, SB06402
 90032: SB03601, SB03601RP, SB03602, SB04002

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
1,1-DICHLOROETHENE	59%-172%		22
TRICHLOROETHENE	62%-137%		24
BENZENE	66%-142%		21
TOLUENE	59%-139%		21
CHLOROBENZENE	60%-133%		21

TABLE 2 - 39

SEMIVOLATILE ORGANICS COMPOUNDS
 SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG 90026		
		MS	MSD	
		%R	%R	%RPD
SVOA COMPOUNDS	UNITS			
PHENOL	ug/Kg	85	85	0
2-CHLOROPHENOL	ug/Kg	84	85	1
1,4-DICHLOROBENZENE	ug/Kg	73	86	16
N-NITROSO-DI-N-PROP.(1)	ug/Kg	78	83	6
1,2,4-TRICHLOROBENZENE	ug/Kg	82	93	13
4-CHLORO-3-METHYLPHENOL	ug/Kg	95	94	1
ACENAPHTHENE	ug/Kg	83	86	4
4-NITROPHENOL	ug/Kg	102	97	5
2,4-DINITROTOLUENE	ug/Kg	*92	*94	2
PENTACHLOROPHENOL	ug/Kg	105	100	5
PYRENE	ug/Kg	93	93	0

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90026: SB05001, SB05001RP
- 90027: SB04201, SB04202, SB04601, SB05002
- 90028: SB04602, SB05601, SB06401, SB07401, SB08301, SB08302
- 90029: SB03801, SB03802, SB05602
- 90030: SB07402
- 90031: SB04001, SB06402
- 90032: SB03601, SB03601RP, SB03602, SB04002

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		SOIL
PHENOL	26%-90%		35
2-CHLOROPHENOL	25%-102%		50
1,4-DICHLOROBENZENE	28%-104%		27
N-NITROSO-DI-N-PROP.(1)	41%-126%		38
1,2,4-TRICHLOROBENZENE	38%-107%		23
4-CHLORO-3-METHYLPHENOL	26%-103%		33
ACENAPHTHENE	31%-137%		19
4-NITROPHENOL	11%-114%		50
2,4-DINITROTOLUENE	28%-89%		47
PENTACHLOROPHENOL	17%-109%		47
PYRENE	35%-142%		36

TABLE 2 - 39, CONTINUED

SEMIVOLATILE ORGANICS COMPOUNDS
 SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 - NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE SB06401		SDG 02EB (90027)	
		MS	MSD	%R	%RPD
SVOA COMPOUNDS		UNITS			
PHENOL	ug/Kg	52	52	0	
2-CHLOROPHENOL	ug/Kg	52	48	8	
1,4-DICHLOROBENZENE	ug/Kg	44	45	2	
N-NITROSO-DI-N-PROP.(1)	ug/Kg	55	50	9	
1,2,4-TRICHLOROBENZENE	ug/Kg	50	50	0	
4-CHLORO-3-METHYLPHENOL	ug/Kg	65	72	10	
ACENAPHTHENE	ug/Kg	60	65	8	
4-NITROPHENOL	ug/Kg	65	62	5	
2,4-DINITROTOLUENE	ug/Kg	65	70	7	
PENTACHLOROPHENOL	ug/Kg	76	79	4	
PYRENE	ug/Kg	65	70	7	

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90026: SB05001, SB05001RP
- 90027: SB04201, SB04202, SB04601, SB05002
- 90028: SB04602, SB05601, SB06401, SB07401, SB08301, SB08302
- 90029: SB03801, SB03802, SB05602
- 90030: SB07402
- 90031: SB04001, SB06402
- 90032: SB03601, SB03601RP, SB03602, SB04002

COMPOUND	ADVISORY LIMITS	RPD
	% R SOIL	SOIL
PHENOL	26%-90%	35
2-CHLOROPHENOL	25%-102%	50
1,4-DICHLOROBENZENE	28%-104%	27
N-NITROSO-DI-N-PROP.(1)	41%-126%	38
1,2,4-TRICHLOROBENZENE	38%-107%	23
4-CHLORO-3-METHYLPHENOL	26%-103%	33
ACENAPHTHENE	31%-137%	19
4-NITROPHENOL	11%-114%	50
2,4-DINITROTOLUENE	28%-89%	47
PENTACHLOROPHENOL	17%-109%	47
PYRENE	35%-142%	36

TABLE 2 - 39, CONTINUED

SEMIVOLATILE ORGANICS COMPOUNDS
 SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE SB03601		SDG 03801	
		MS	MSD		
SVOA COMPOUNDS		UNITS	%R	%R	%RPD
PHENOL	ug/Kg	71	61	15	
2-CHLOROPHENOL	ug/Kg	64	57	11	
1,4-DICHLOROBENZENE	ug/Kg	58	49	17	
N-NITROSO-DI-N-PROP.(1)	ug/Kg	68	58	16	
1,2,4-TRICHLOROBENZENE	ug/Kg	63	58	8	
4-CHLORO-3-METHYLPHENOL	ug/Kg	75	64	16	
ACENAPHTHENE	ug/Kg	74	63	16	
4-NITROPHENOL	ug/Kg	68	61	11	
2,4-DINITROTOLUENE	ug/Kg	74	63	16	
PENTACHLOROPHENOL	ug/Kg	71	64	10	
PYRENE	ug/Kg	84	68	21	

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG 03801

- 90029: SB03801, SB03802, SB05602
- 90030: SB07402
- 90031: SB04001, SB06402
- 90032: SB03601, SB03601RP, SB03602, SB04002

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		SOIL
PHENOL	26%-90%		35
2-CHLOROPHENOL	25%-102%		50
1,4-DICHLOROBENZENE	28%-104%		27
N-NITROSO-DI-N-PROP.(1)	41%-126%		38
1,2,4-TRICHLOROBENZENE	38%-107%		23
4-CHLORO-3-METHYLPHENOL	26%-103%		33
ACENAPHTHENE	31%-137%		19
4-NITROPHENOL	11%-114%		50
2,4-DINITROTOLUENE	28%-89%		47
PENTACHLOROPHENOL	17%-109%		47
PYRENE	35%-142%		36

TABLE 2 - 39, CONTINUED

SEMIVOLATILE ORGANICS COMPOUNDS
 SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG 90065		
		MS	MSD	
SAMPLE SB06801		%R	%R	%RPD
SVOA COMPOUNDS		UNITS		
PHENOL	ug/Kg	*92	*94	2
2-CHLOROPHENOL	ug/Kg	82	85	4
1,4-DICHLOROBENZENE	ug/Kg	76	77	1
N-NITROSO-DI-N-PROP.(1)	ug/Kg	74	76	3
1,2,4-TRICHLOROBENZENE	ug/Kg	82	82	0
4-CHLORO-3-METHYLPHENOL	ug/Kg	89	92	3
ACENAPHTHENE	ug/Kg	75	77	3
4-NITROPHENOL	ug/Kg	106	109	3
2,4-DINITROTOLUENE	ug/Kg	88	*90	2
PENTACHLOROPHENOL	ug/Kg	89	93	4
PYRENE	ug/Kg	80	85	6

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90065: SB06801, SB06801RP, SB06403
 90067: SB05701, SB06501

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		SOIL
PHENOL	26%-90%		35
2-CHLOROPHENOL	25%-102%		50
1,4-DICHLOROBENZENE	28%-104%		27
N-NITROSO-DI-N-PROP.(1)	41%-126%		38
1,2,4-TRICHLOROBENZENE	38%-107%		23
4-CHLORO-3-METHYLPHENOL	26%-103%		33
ACENAPHTHENE	31%-137%		19
4-NITROPHENOL	11%-114%		50
2,4-DINITROTOLUENE	28%-89%		47
PENTACHLOROPHENOL	17%-109%		47
PYRENE	35%-142%		36

TABLE 2 - 40

PESTICIDES/PCBS

**SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE SB05001		SDG 90026		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/Kg	73	79	8
Heptachlor	ug/Kg	78	85	9
Aldrin	ug/Kg	81	89	9
Dieldrin	ug/Kg	*246	*320	26
Endrin	ug/Kg	93	100	7
4,4'-DDT	ug/Kg	91	99	8

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

- 90026: SB05001, SB05001RP
- 90027: SB04201, SB04202, SB04601, SB05002
- 90028: SB04602, SB05601, SB06401, SB07401, SB08301, SB08302
- 90029: SB03801, SB03802, SB05602
- 90030: SB07402
- 90031: SB04001, SB06402
- 90032: SB03601, SB03601RP, SB03602, SB04002

MS = MATRIX SPIKE SAMPLE SB06401		SDG 02EB (90027)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/Kg	105	105	0
Heptachlor	ug/Kg	100	100	0
Aldrin	ug/Kg	95	95	0
Dieldrin	ug/Kg	97	97	0
Endrin	ug/Kg	97	97	0
4,4'-DDT	ug/Kg	80	78	3

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

- 90026: SB05001, SB05001RP
- 90027: SB04201, SB04202, SB04601, SB05002
- 90028: SB04602, SB05601, SB06401, SB07401, SB08301, SB08302
- 90029: SB03801, SB03802, SB05602
- 90030: SB07402
- 90031: SB04001, SB06402
- 90032: SB03601, SB03601RP, SB03602, SB04002

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		SOIL
gamma-BHC(Lindane)	46%-127%		50
HEPTACHLOR	35%-130%		31
ALDRIN	34%-132%		43
DIELDRIN	31%-134%		38
ENDRIN	42%-139%		45
4,4'-DDT	23%-134%		50

TABLE 2 - 40, CONTINUED

PESTICIDES/PCBS

**SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE SB03601		SDG 03801		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/Kg	78	78	0
Heptachlor	ug/Kg	73	68	7
Aldrin	ug/Kg	*0	*0	0
Dieldrin	ug/Kg	91	100	9
Endrin	ug/Kg	49	*40	20
4,4'-DDT	ug/Kg	81	79	2

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

SDG 03801

90029: SB03801, SB03802, SB05602

90030: SB07402

90031: SB04001, SB06402

90032: SB03601, SB03601RP, SB03602, SB04002

MS = MATRIX SPIKE SAMPLE SB06801		SDG 90065		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/Kg	87	90	3
Heptachlor	ug/Kg	86	88	2
Aldrin	ug/Kg	87	89	2
Dieldrin	ug/Kg	89	95	7
Endrin	ug/Kg	99	106	7
4,4'-DDT	ug/Kg	96	102	6

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90065: SB06801, SB06801RP, SB06403

90067: SB05701, SB06501

COMPOUND	ADVISORY LIMITS	RPD
	% R SOIL	SOIL
gamma-BHC(Lindane)	46%-127%	50
HEPTACHLOR	35%-130%	31
ALDRIN	34%-132%	43
DIELDRIN	31%-134%	38
ENDRIN	42%-139%	45
4,4'-DDT	23%-134%	50

TABLE 2 - 41

METALS AND CYANIDE

**SOIL SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE 03601 MD = MATRIX DUPLICATE SAMPLE 03601 RPD = RELATIVE PERCENT DIFFERENCE		SDG 03801	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	MG/KG	NR	*35.8
ANTIMONY	MG/KG	*56	NC
ARSENIC	MG/KG	82.8	200.0
BARIIUM	MG/KG	93.7	40.0
BERYLLIUM	MG/KG	84.0	1.0
CADMIUM	MG/KG	92.0	*200
CALCIUM	MG/KG	NR	*44.5
CHROMIUM	MG/KG	89.0	5.7
COBALT	MG/KG	89.4	NC
COPPER	MG/KG	94.4	10.5
IRON	MG/KG	NR	13.2
LEAD	MG/KG	85.9	8.1
MAGNESIUM	MG/KG	NR	62.6
MANGANESE	MG/KG	100.6	*87.0
MERCURY	MG/KG	83.5	NC
NICKEL	MG/KG	89.2	NC
POTASSIUM	MG/KG	NR	200.0
SELENIUM	MG/KG	*70.9	NC
SILVER	MG/KG	86.0	NC
SODIUM	MG/KG	NR	13.3
THALLIUM	MG/KG	91.0	NC
VANADIUM	MG/KG	90.8	16.2
ZINC	MG/KG	82.2	0.0
CYANIDE	MG/KG	80.3	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

03801: SB05602, SB03801, SB03802, SB07402, SB06402, SB04001,
SB04002, SB03602, SB03601, SB03601RP

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 41, CONTINUED

METALS AND CYANIDE

SOIL SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SB05001 MD = MATRIX DUPLICATE SAMPLE SB05001 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90026	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINIUM	MG/KG	NR	*33.3
ANTIMONY	MG/KG	103.2	NC
ARSENIC	MG/KG	91.7	22.5
BARIUM	MG/KG	105.8	5.4
BERYLLIUM	MG/KG	100.6	200.0
CADMIUM	MG/KG	96.8	NC
CALCIUM	MG/KG	NR	13.1
CHROMIUM	MG/KG	99.5	14.2
COBALT	MG/KG	101.4	NC
COPPER	MG/KG	104.0	31.5
IRON	MG/KG	NR	*20.3
LEAD	MG/KG	*58.5	2.7
MAGNESIUM	MG/KG	NR	28.6
MANGANESE	MG/KG	91.7	*44.1
MERCURY	MG/KG	109.3	*54.2
NICKEL	MG/KG	99.6	NC
POTASSIUM	MG/KG	NR	NC
SELENIUM	MG/KG	81.9	NC
SILVER	MG/KG	95.6	NC
SODIUM	MG/KG	NR	0.9
THALLIUM	MG/KG	104.9	NC
VANADIUM	MG/KG	97.2	10.6
ZINC	MG/KG	96.3	4.6
CYANIDE	MG/KG	103.1	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90026: SB05001, SB05001RP

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 41, CONTINUED

**METALS AND CYANIDE
SOIL SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE SB06401 MD = MATRIX DUPLICATE SAMPLE SB06401 RPD = RELATIVE PERCENT DIFFERENCE		SDG 02EB	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	MG/KG	NR	1.8
ANTIMONY	MG/KG	76.4	NC
ARSENIC	MG/KG	*60.2	200.0
BARIUM	MG/KG	94.5	16.7
BERYLLIUM	MG/KG	90.0	NC
CADMIUM	MG/KG	88.0	NC
CALCIUM	MG/KG	NR	0.3
CHROMIUM	MG/KG	98.0	NC
COBALT	MG/KG	92.0	NC
COPPER	MG/KG	98.4	NC
IRON	MG/KG	NR	*55.4
LEAD	MG/KG	*125.7	*20.2
MAGNESIUM	MG/KG	NR	2.8
MANGANESE	MG/KG	98.8	66.7
MERCURY	MG/KG	81.3	NC
NICKEL	MG/KG	92.6	NC
POTASSIUM	MG/KG	NR	NC
SELENIUM	MG/KG	75.1	NC
SILVER	MG/KG	80.0	NC
SODIUM	MG/KG	NR	2.9
THALLIUM	MG/KG	95.8	NC
VANADIUM	MG/KG	93.2	66.7
ZINC	MG/KG	115.2	23.3
CYANIDE	MG/KG	*0	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

02EB: SB05002, SB04201, SB04202, SB04601, SB06401, SB07401,
SB05601, SB04602, SB8302, SB08301

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 41, CONTINUED

METALS AND CYANIDE

**SOIL SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE SB06801 MD = MATRIX DUPLICATE SAMPLE SB06801 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90065	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	MG/KG	NR	2.8
ANTIMONY	MG/KG	82.2	NC
ARSENIC	MG/KG	81.0	200.0
BARIUM	MG/KG	95.2	0.5
BERYLLIUM	MG/KG	90.1	NC
CADMIUM	MG/KG	100.3	NC
CALCIUM	MG/KG	NR	69.0
CHROMIUM	MG/KG	96.5	7.7
COBALT	MG/KG	96.4	NC
COPPER	MG/KG	95.6	200.0
IRON	MG/KG	NR	6.2
LEAD	MG/KG	*73.7	*45.8
MAGNESIUM	MG/KG	NR	12.5
MANGANESE	MG/KG	93.6	4.4
MERCURY	MG/KG	98.9	NC
NICKEL	MG/KG	95.8	115.2
POTASSIUM	MG/KG	NR	NC
SELENIUM	MG/KG	104.1	NC
SILVER	MG/KG	91.4	NC
SODIUM	MG/KG	NR	1.8
THALLIUM	MG/KG	92.1	NC
VANADIUM	MG/KG	92.9	15.4
ZINC	MG/KG	97.1	*80.3
CYANIDE	MG/KG	92.5	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90065: SB06801, SB06801RP, SB06403

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 42

GC/MS VOLATILE ORGANICS COMPOUNDS
 SEDIMENT SAMPLE MATRIX SPIKE\MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE <i>SAMPLE SD03601</i>		SDG 03501 (90100)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/Kg	104	109	5
TRICHLOROETHENE	ug/Kg	97	98	1
BENZENE	ug/Kg	88	88	0
TOLUENE	ug/Kg	86	88	2
CHLOROBENZENE	ug/Kg	95	95	0

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

(03501) 90100: SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301

MS = MATRIX SPIKE <i>SAMPLE SD04301RP</i>		SDG 90133		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/Kg	106	107	1
TRICHLOROETHENE	ug/Kg	100	104	4
BENZENE	ug/Kg	109	109	0
TOLUENE	ug/Kg	116	114	2
CHLOROBENZENE	ug/Kg	106	109	3

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90109: SD03401, SD05101, SD05601
 90115: SD05001, SD05401, SD05401RP
 90118: SD05701
 90120: SD03801
 90123: SD04701, SD05501, SD04501, SD04601
 90129: SD03701, SD03901
 90133: SD04301, SD04301RP
 90141: SD06101, SD06201
 90147: SD06001, SD05901

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
1,1-DICHLOROETHENE	59%-172%		22
TRICHLOROETHENE	62%-137%		24
BENZENE	66%-142%		21
TOLUENE	59%-139%		21
CHLOROBENZENE	60%-133%		21

TABLE 2 - 43

SEMIVOLATILE ORGANICS COMPOUNDS
 SEDIMENT SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG 03501 (90100)		
		MS	MSD	
SVOA COMPOUNDS		UNITS	%R	%RPD
PHENOL	ug/Kg	39	60	*42
2-CHLOROPHENOL	ug/Kg	39	57	37
1,4-DICHLOROBENZENE	ug/Kg	33	48	*37
N-NITROSO-DI-N-PROP.(1)	ug/Kg	*35	52	*39
1,2,4-TRICHLOROBENZENE	ug/Kg	*37	56	*41
4-CHLORO-3-METHYLPHENOL	ug/Kg	48	70	*37
ACENAPHTHENE	ug/Kg	43	65	*41
4-NITROPHENOL	ug/Kg	42	42	0
2,4-DINITROTOLUENE	ug/Kg	48	65	30
PENTACHLOROPHENOL	ug/Kg	67	88	27
PYRENE	ug/Kg	59	72	20

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

03501 (90100): SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		SOIL
PHENOL	26%-90%		35
2-CHLOROPHENOL	25%-102%		50
1,4-DICHLOROBENZENE	28%-104%		27
N-NITROSO-DI-N-PROP.(1)	41%-126%		38
1,2,4-TRICHLOROBENZENE	38%-107%		23
4-CHLORO-3-METHYLPHENOL	26%-103%		33
ACENAPHTHENE	31%-137%		19
4-NITROPHENOL	11%-114%		50
2,4-DINITROTOLUENE	28%-89%		47
PENTACHLOROPHENOL	17%-109%		47
PYRENE	35%-142%		36

TABLE 2 - 43, CONTINUED
SEMIVOLATILE ORGANICS COMPOUNDS
SEDIMENT SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE SD04301RP		SDG 90133	
		MS	MSD	%R	%R
SVOA COMPOUNDS	UNITS				
PHENOL	ug/Kg	*102	35		*98
2-CHLOROPHENOL	ug/Kg	100	35		*96
1,4-DICHLOROBENZENE	ug/Kg	92	32		*97
N-NITROSO-DI-N-PROP.(1)	ug/Kg	92	*31		*99
1,2,4-TRICHLOROBENZENE	ug/Kg	9	*35		*96
4-CHLORO-3-METHYLPHENOL	ug/Kg	*113	39		*97
ACENAPHTHENE	ug/Kg	100	37		*92
4-NITROPHENOL	ug/Kg	*120	37		*106
2,4-DINITROTOLUENE	ug/Kg	*110	37		*99
PENTACHLOROPHENOL	ug/Kg	*116	28		*122
PYRENE	ug/Kg	85	*31		*93

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90109: SD03401, SD05101, SD05601
 90115: SD05001, SD05401, SD05401RP
 90118: SD05701
 90120: SD03801
 90123: SD04701, SD05501, SD04501, SD04601
 90129: SD03701, SD03901
 90133: SD04301, SD04301RP
 90141: SD06101, SD06201
 90147: SD06001, SD05901

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		SOIL
PHENOL	26%-90%		35
2-CHLOROPHENOL	25%-102%		50
1,4-DICHLOROBENZENE	28%-104%		27
N-NITROSO-DI-N-PROP.(1)	41%-126%		38
1,2,4-TRICHLOROBENZENE	38%-107%		23
4-CHLORO-3-METHYLPHENOL	26%-103%		33
ACENAPHTHENE	31%-137%		19
4-NITROPHENOL	11%-114%		50
2,4-DINITROTOLUENE	28%-89%		47
PENTACHLOROPHENOL	17%-109%		47
PYRENE	35%-142%		36

TABLE 2 - 44

PESTICIDES/PCBS

**SEDIMENT SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE SD03601RP</i>		SDG 03501 (90100)		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/Kg	89	90	1
Heptachlor	ug/Kg	81	83	2
Aldrin	ug/Kg	87	96	10
Dieldrin	ug/Kg	110	107	3
Endrin	ug/Kg	91	96	5
4,4'-DDT	ug/Kg	95	96	1

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

03501 (90100): SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301

MS = MATRIX SPIKE <i>SAMPLE SD04301RP</i>		SDG 90133		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/Kg	78	86	10
Heptachlor	ug/Kg	76	77	1
Aldrin	ug/Kg	89	94	5
Dieldrin	ug/Kg	91	97	6
Endrin	ug/Kg	80	83	4
4,4'-DDT	ug/Kg	80	83	4

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

90109: SD03401, SD05101, SD05601
 90115: SD05001, SD05401, SD05401RP
 90118: SD05701
 90120: SD03801
 90123: SD04701, SD05501, SD04501, SD04601
 90129: SD03701, SD03901
 90133: SD04301, SD04301RP
 90141: SD06101, SD06201
 90147: SD06001, SD05901

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		
gamma-BHC(Lindane)	46%-127%		50
HEPTACHLOR	35%-130%		31
ALDRIN	34%-132%		43
DIELDRIN	31%-134%		38
ENDRIN	42%-139%		45
4,4'-DDT	23%-134%		50

TABLE 2 - 45

**METALS AND CYANIDE
SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE SD03601		SDG 90100A	
MD = MATRIX DUPLICATE SAMPLE SD03601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINIUM	mg/Kg	NR	0.3
ANTIMONY	mg/Kg	90.7	NC
ARSENIC	mg/Kg	113.0	36.6
BARIUM	mg/Kg	94.7	0.1
BERYLLIUM	mg/Kg	94.9	0.0
CADMIUM	mg/Kg	93.6	NC
CALCIUM	mg/Kg	NR	0.3
CHROMIUM	mg/Kg	77.8	1.9
COBALT	mg/Kg	94.4	NC
COPPER	mg/Kg	86.0	3.1
IRON	mg/Kg	NR	0.1
LEAD	mg/Kg	302.2	0.5
MAGNESIUM	mg/Kg	NR	0.6
MANGANESE	mg/Kg	92.3	0.5
NICKEL	mg/Kg	90.3	NC
POTASSIUM	mg/Kg	NR	NC
SELENIUM	mg/Kg	85.1	NC
SILVER	mg/Kg	92.2	NC
SODIUM	mg/Kg	NR	2.9
THALLIUM	mg/Kg	103.6	NC
VANADIUM	mg/Kg	89.0	3.4
ZINC	mg/Kg	*69.7	0.7

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90100: SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301
- 90109: SD03401, SD05101, SD05601
- 90115: SD04901, SD05001, SD05401, SD05401RP
- 90118: SD05701
- 90129: SD03701, SD03901
- 90133: SD04301, SD04301RP
- 90136: SD04101, SD04201
- 90138: SD04001, SD05801

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

**METALS AND CYANIDE
SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE SD03601</i>		SDG 90100	
MD = MATRIX DUPLICATE <i>SAMPLE SD03601</i>		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	mg/Kg	101.2	50.4
CYANIDE	mg/Kg	97.1	NC

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90100: SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301

MS = MATRIX SPIKE <i>SAMPLE SD05001</i>		SDG 90115	
MD = MATRIX DUPLICATE <i>SAMPLE SD05001</i>		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	mg/Kg	98.0	NC

MS = MATRIX SPIKE <i>SAMPLE SD05401</i>		SDG 90115	
MD = MATRIX DUPLICATE <i>SAMPLE SD05401</i>		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	mg/Kg	105.3	83.4

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90115: SD04901, SD05001, SD05401, SD05401RP

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

METALS AND CYANIDE

SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE	SAMPLE SD03801	SDG 90120	
MD = MATRIX DUPLICATE	SAMPLE SD03801	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	mg/Kg	94.1	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90120: SD03801

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

**METALS AND CYANIDE
SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE	SAMPLE SD05601	SDG 90109	
MD = MATRIX DUPLICATE	SAMPLE SD05601	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	mg/Kg	88.4	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90109: SD03401, SD05101, SD05601

MS = MATRIX SPIKE	SAMPLE SD05701	SDG 90118	
MD = MATRIX DUPLICATE	SAMPLE SD05701	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	mg/Kg	95.2	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90118: SD05701

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

**METALS AND CYANIDE
SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE SD04301 MD = MATRIX DUPLICATE SAMPLE SD04301 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90133A	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	mg/Kg	NR	4.6
ANTIMONY	mg/Kg	88.1	NC
ARSENIC	mg/Kg	99.0	8.2
BARIIUM	mg/Kg	93.9	14.1
BERYLLIUM	mg/Kg	93.8	13.6
CADMIUM	mg/Kg	91.9	NC
CALCIUM	mg/Kg	NR	4.3
CHROMIUM	mg/Kg	97.1	14.4
COBALT	mg/Kg	93.2	NC
COPPER	mg/Kg	94.7	11.7
IRON	mg/Kg	NR	5.0
LEAD	mg/Kg	*71.4	12.0
MAGNESIUM	mg/Kg	NR	4.9
MANGANESE	mg/Kg	95.6	7.3
NICKEL	mg/Kg	94.7	NC
POTASSIUM	mg/Kg	NR	NC
SELENIUM	mg/Kg	105.0	16.0
SILVER	mg/Kg	92.1	NC
SODIUM	mg/Kg	NR	1.5
THALLIUM	mg/Kg	99.4	NC
VANADIUM	mg/Kg	89.9	3.1
ZINC	mg/Kg	91.1	1.6

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90100: SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301
- 90109: SD03401, SD05101, SD05601
- 90115: SD04901, SD05001, SD05401, SD05401RP
- 90118: SD05701
- 90129: SD03701, SD03901
- 90133: SD04301, SD04301RP
- 90136: SD04101, SD04201
- 90138: SD04001, SD05801

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

**METALS AND CYANIDE
SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE	SAMPLE SD04301	SDG 90133	
MD = MATRIX DUPLICATE	SAMPLE SD04301	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
MERCURY	mg/Kg	113.5	7.1
CYANIDE	mg/Kg	96.8	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90133: SD04301, SD04301RP

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

**METALS AND CYANIDE
SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE SD04501		SDG 90123	
MD = MATRIX DUPLICATE SAMPLE SD04501		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	mg/Kg	NR	13.5
ANTIMONY	mg/Kg	96.0	NC
ARSENIC	mg/Kg	100.3	1.7
BARIUM	mg/Kg	100.7	16.1
BERYLLIUM	mg/Kg	98.0	21.8
CADMIUM	mg/Kg	99.1	NC
CALCIUM	mg/Kg	NR	25.4
CHROMIUM	mg/Kg	95.9	17.3
COBALT	mg/Kg	96.8	NC
COPPER	mg/Kg	101.4	26.3
IRON	mg/Kg	NR	6.5
LEAD	mg/Kg	*24.0	23.2
MAGNESIUM	mg/Kg	NR	20.0
MANGANESE	mg/Kg	93.0	32.8
MERCURY	mg/Kg	113.7	200.0
NICKEL	mg/Kg	95.8	NC
POTASSIUM	mg/Kg	NR	200.0
SELENIUM	mg/Kg	94.1	NC
SILVER	mg/Kg	*73.5	NC
SODIUM	mg/Kg	NR	NC
THALLIUM	mg/Kg	106.1	NC
VANADIUM	mg/Kg	92.1	6.6
ZINC	mg/Kg	92.1	12.1
CYANIDE	mg/Kg	97.2	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90123: SD04401, SD04501, SD05501, SD04701, SD04601

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

METALS AND CYANIDE

SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE	SAMPLE SD03701	SDG 90129	
MD = MATRIX DUPLICATE	SAMPLE SD03701	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	mg/Kg	99.6	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90129: SD03701, SD03901

COMPOUND	ADVISORY LIMITS	RPD
	%R SOIL	SOIL
ALL COMPOUNDS	75%-125%	+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
 Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

**METALS AND CYANIDE
SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE	SAMPLE SD04101	SDG 90136	
MD = MATRIX DUPLICATE	SAMPLE SD04101	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	mg/Kg	95.0	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90136: SD04101, SD04201

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

TABLE 2 - 45, CONTINUED

METALS AND CYANIDE

SEDIMENT SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE SD06001		SDG 90147	
MD = MATRIX DUPLICATE SAMPLE SD06001		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	mg/Kg	NR	3.9
ANTIMONY	mg/Kg	93.6	NC
ARSENIC	mg/Kg	92.5	7.4
BARIUM	mg/Kg	94.2	9.0
BERYLLIUM	mg/Kg	94.6	0.0
CADMIUM	mg/Kg	82.1	200.0
CALCIUM	mg/Kg	NR	*55.6
CHROMIUM	mg/Kg	100.9	5.0
COBALT	mg/Kg	93.3	200.0
COPPER	mg/Kg	90.6	35.7
IRON	mg/Kg	NR	1.8
LEAD	mg/Kg	*61.0	8.4
MAGNESIUM	mg/Kg	NR	18.3
MANGANESE	mg/Kg	90.2	8.5
MERCURY	mg/Kg	110.9	8.7
NICKEL	mg/Kg	94.2	21.2
POTASSIUM	mg/Kg	NR	NC
SELENIUM	mg/Kg	80.6	200.0
SILVER	mg/Kg	97.0	NC
SODIUM	mg/Kg	NR	6.2
THALLIUM	mg/Kg	93.6	200.0
VANADIUM	mg/Kg	92.2	1.4
ZINC	mg/Kg	92.4	3.3
CYANIDE	mg/Kg	89.8	0.1

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90147: SD06001, SD05901

90141: SD06101, SD06201

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract Required Detection Limit (CRDL)

TABLE 2 - 46

**TOTAL PETROLEUM HYDROCARBONS
SEDIMENT SAMPLE MATRIX SPIKE/ MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE	SAMPLE SD03501S	SDG 90100 (03501)	
MD = MATRIX DUPLICATE	SAMPLE SD03501D	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH RESULTS	UNITS		
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	101.5	1.0

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90100 (03501): SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301

MS = MATRIX SPIKE	SAMPLE SD04501S	SDG 90123	
MD = MATRIX DUPLICATE	SAMPLE SD04501D	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH RESULTS	UNITS		
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	96.3	2.5

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90109: SD03401, SD05101, SD05601
 90115: SD05001, SD05401, SD05401RP
 90118: SD05701
 90120: SD03801
 90123: SD04701, SD05501, SD04501, SD04601
 90129: SD03701, SD03901
 90133: SD04301, SD04301RP
 90141: SD06101, SD06201
 90147: SD06001, SD05901

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

NA DENOTES THAT A DUPLICATE ANALYSIS WAS NOT PERFORMED.

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	80-120		+/-20%

TABLE 2 - 46, CONTINUED

TOTAL PETROLEUM HYDROCARBONS
 SEDIMENT SAMPLE MATRIX SPIKE/ MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE	SAMPLE SD04301S	SDG 90133	
MD = MATRIX DUPLICATE	SAMPLE SD04301D	MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH RESULTS	UNITS		
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	*75.8	8.1

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

MS = MATRIX SPIKE	SAMPLE SD04301S #	SDG 90133	
MD = MATRIX DUPLICATE		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH RESULTS	UNITS		
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	*72.3	NA

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

HIGH LEVEL SPIKE

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

- 90109: SD03401, SD05101, SD05601
- 90115: SD05001, SD05401, SD05401RP
- 90118: SD05701
- 90120: SD03801
- 90123: SD04701, SD05501, SD04501, SD04601
- 90129: SD03701, SD03901
- 90133: SD04301, SD04301RP
- 90141: SD06101, SD06201
- 90147: SD06001, SD05901

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

NA DENOTES THAT A DUPLICATE ANALYSIS WAS NOT PERFORMED.

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	80-120		+/-20%

2-26 through 2-30 for the groundwater matrix, Tables 2-31 through 2-36 for the surface water matrix, Table 2-37 for the cone penetrometer water matrix, Tables 2-38 through 2-41 for the surface soil matrix, and Tables 2-42 through 2-46 for the sediment matrix.

In addition, to assess whether instrument calibration for volatile, semivolatile, and pesticide/PCB analytical methods resulted in non-compliant duplicate precision, tables were made of calibrations for each sample delivery group (SDG) which exhibited non-compliant calibrations. These are included in Appendix A. To assess potential non-compliance caused by physical and/or chemical interferences and indicated by non-compliant serial dilution results, tables were made of serial dilution results for each matrix. Serial dilution results are presented in Appendix B. The results can be found in Table B-1 for total metals in the groundwater matrix, Table B-2 for dissolved metals in the groundwater matrix, Table B-3 for total metals in the surface water matrix, Table B-4 for dissolved metals in the surface water matrix, Table B-5 for the surface soil matrix and Table B-6 for the sediment matrix.

2.1 Groundwater Matrix

The assessment of groundwater matrix environmental samples and associated duplicates for precision is provided in Tables 2-1 through 2-6. No target compounds were detected in either the water samples or associated duplicates for the GC/MS Volatiles (Table 2-1). Therefore, no precision assessment based on field duplicate reproducibility was possible for this parameter.

The assessment of precision based on the reproducibility of results between matrix spike and matrix spike duplicate (organic fractions), or matrix duplicate (metals fraction) pairs are provided in Tables 2-26 through 2-30. The reproducibility for MS/MSD/MD pairs was acceptable for the GC/MS Volatile fraction and for the Dissolved Metals fraction.

The GC/MS semivolatile analysis of the field samples MW4501, MW05401, MW05601, MW06901, and MW07901 and their associated duplicates exhibited positive results for the compound bis(2-ethylhexyl)phthalate in the sample and/or the associated duplicate. The compound was detected below the compound CRQLs in the original sample and/or the field duplicate. This compound exceeded the maximum RPD for waters in each of the samples (Table 2-2). The non-compliance can be attributed to the low concentrations detected in the samples and that the compound is a common laboratory contaminant. Assessment of the initial and continuing calibration criteria for the compound exhibiting a non-compliant RPD indicates that the system was "in-control" (Appendix A, Table A-2).

The semivolatile analysis of the MS/MSD pair for sample MW00601 exhibited one (1) compound, 1,4-dichlorobenzene, with an RPD slightly above the acceptable criteria (Table 2-27). The non-compliance could be attributed to laboratory inconsistencies, i.e., spiking error or an inaccurate spiking solution. Based on the assessment of other QC criteria, the non-compliance did not result in qualification of the sample data.

The pesticides/PCB analysis of the field duplicate pair MW04501 exhibited a non-compliant RPD for the only compound detected, Dieldrin. The compound was

detected below the CRQL in both the original sample and its associated duplicate (Table 2-3). The non-compliance can be attributed to the low concentration detected. Assessment of the initial and continuing calibration criteria for the compound exhibiting a non-compliant RPD indicates that the system was "in-control" (Appendix A, Table A-3).

The pesticide/PCB analysis of the MS/MSD pair of sample MW06101 exhibited a non-compliant RPD for the compound 4,4'-DDT (Table 2-28). The non-compliance can be attributed to laboratory inconsistencies as evidenced by the eighteen percent (18%) difference in spike recoveries between the MS and the MSD. (Accuracy based on MS/MSD recoveries is discussed in Section 3). Based on the assessment of other QC criteria, the non-compliance did not result in qualification of the sample data.

Seventeen (17) of the twenty-one (21) total metals target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample MW04501 exhibited non-compliant RPDs (Table 2-4, page 2-5). The analytes exhibiting non-compliant RPDs were aluminum, antimony, arsenic, barium, beryllium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, vanadium and zinc. The analytes antimony and cobalt were detected at concentrations less than the CRDLs in both the original sample and the field duplicate. The analytes arsenic and copper were detected at concentrations less than the CRDLs in the field duplicate. Mercury was detected in the original sample but not in the field duplicate. The non-compliance for the analytes antimony, arsenic, cobalt, mercury, and copper can be attributed to the low concentrations detected. The non-compliance for the analytes aluminum, barium, beryllium, chromium, iron, lead, magnesium, manganese, nickel, potassium, vanadium, and zinc could be attributed to field and/or laboratory inconsistencies. The concentrations in the original sample were, in all cases, significantly higher than in the field duplicate sample. This could indicate inconsistent field sampling technique. Assessment of the serial dilution criteria for the non-compliant compounds indicates that they were "in-control" (Appendix B, Table B-1).

Ten (10) of the twenty-one (21) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample MW05401 exhibited non-compliant RPDs (Table 2-4, page 2-5). The analytes exhibiting non-compliant RPDs were aluminum, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, silver and zinc. The analytes beryllium, nickel, and selenium were detected at concentrations below the CRDLs in both the original sample and the duplicate. The analytes cadmium and silver were detected in the original sample, but not in the field duplicate sample. The non-compliance for the analytes beryllium, nickel, selenium, cadmium, and silver can be attributed to the low concentrations detected. Negative bias for the analyte lead was noted in the preparation blank associated with the field duplicate (Table 4 - 15). (Representativeness based on blank contamination is discussed in Section 4.) The non-compliance for the analyte lead can be attributed to instrument anomalies. The non-compliance for the analytes aluminum, chromium, mercury and zinc could be attributed to field and/or laboratory inconsistencies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-1).

Four (4) of the nineteen (19) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample MW07101 exhibited non-compliant RPDs (Table 2-4, page 2-6). The analytes exhibiting non-compliant RPDs were arsenic, cobalt, lead and selenium. All of the non-compliant analytes were detected at concentrations below the CRDLs in the field sample and/or the duplicate. Cobalt and selenium were detected in the duplicate sample at concentrations below the CRDLs, and were not detected in the original sample. The non-compliance for the analytes arsenic, cobalt, lead, and selenium can be attributed to the low concentrations detected. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-1).

Three (3) of the ten (10) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample MW05601 exhibited non-compliant RPDs (Table 2-4, page 2-6). The analytes exhibiting non-compliant RPDs were aluminum, potassium and vanadium. Vanadium was detected in the duplicate sample at levels below the CRDLs, and was not detected in the original sample. The non-compliance for the analyte vanadium can be attributed to the low concentrations detected. The non-compliance for the analytes aluminum and potassium could be attributed to field and/or laboratory inconsistencies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-1).

Thirteen (13) of the fourteen (14) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample MW06901 exhibited non-compliant RPDs (Table 2-4, page 2-7). The analytes exhibiting non-compliant RPDs were aluminum, arsenic, barium, beryllium, calcium, chromium, iron lead, magnesium, manganese, potassium, sodium, and vanadium. The analytes arsenic, barium, and vanadium were detected in both the original sample and the duplicate at concentrations below the analyte CRDLs. The analytes beryllium and lead were detected in the original sample but not in the field duplicate sample. The analytes magnesium and manganese were detected at concentrations below the CRDLs in the field duplicate sample. The analyte potassium was detected at a concentration below the CRDL in the original sample. The non-compliance for the analyte arsenic, barium, vanadium, beryllium, lead, magnesium, manganese, and potassium can be attributed to the low concentrations detected. The non-compliance for the analytes aluminum, calcium, and iron were detected in the equipment rinseate blank associated with these samples (Table 4 - 10, SDG 90083). The analytes aluminum, potassium, and sodium were detected in the preparation blank associated with these samples (Table 4 - 15, SDG 90083). The non-compliance for the analytes aluminum, calcium, potassium, sodium, and iron can be attributed to laboratory and/or field contamination. The non-compliance for the analyte chromium was slight, and could be attributed to laboratory inconsistencies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-1).

Four (4) of the ten (10) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample MW07901 exhibited non-compliant RPDs (Table 2-4, page 2-7). The non-compliant analytes were aluminum, chromium, copper, and zinc. The analytes aluminum,

chromium, and copper were detected in the original sample but not in the associated field duplicate. The analyte zinc was detected in the original sample at a level below the analyte CRDL. The analytes aluminum and zinc were detected in the rinseate blank and/or the preparation blank associated with the samples (Tables 4 - 10 and 4 - 15, SDG 90083). The non-compliance for the analytes aluminum, chromium, copper, and zinc can be attributed to the low concentrations detected, as well as laboratory and/or field contamination. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-1).

One (1) of the matrix duplicate (MD) pairs, sample MW06601, analyzed for the total metals fraction exhibited a non-compliant RPD for the compound aluminum (Table 2-29, page 2-44). The RPD value was 23.2 percent difference (%D). The non-compliance was slight and could be attributed to laboratory inconsistencies. The reported aluminum results in samples associated with this matrix duplicate were qualified as estimated, J or UJ, and should be considered bias low.

Eleven (11) of the eighteen (18) target analytes detected in the field sample and/or the associated duplicate in the dissolved metals analysis of sample MW04501 exhibited non-compliant RPDs (Table 2-5, page 2-8). The non-compliant analytes were aluminum, arsenic, beryllium, cadmium, chromium, copper, iron, lead, nickel, potassium and vanadium. The analytes cadmium and nickel were detected in the original sample but not in the associated field duplicate. The analytes arsenic, beryllium, copper, and potassium were detected in the original sample and the field duplicate at concentrations below the analyte CRDLs. The non-compliance for the analytes cadmium, nickel, arsenic, beryllium, copper, and potassium can be attributed to the low concentrations detected. The analytes iron and lead were detected in the preparation blank associated with the samples (Table 4 - 16, SDG 90075). The non-compliance for the iron and zinc can be attributed to laboratory contamination. The analyte vanadium exhibited negative bias in the preparation blank associated with the field duplicate pair (Table 4 - 16, SDG 90075). The non-compliance for vanadium can be attributed to instrument anomalies. The non-compliance for the analytes aluminum and chromium could be attributed to field and/or laboratory inconsistencies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-2).

Four (4) of the thirteen (13) target analytes detected in the field sample and/or the associated duplicate in the dissolved metals analysis of sample MW05401 exhibited non-compliant RPDs (Table 2-5, page 2-8). The analytes exhibiting non-compliant RPDs were arsenic, copper, vanadium, and zinc. Arsenic, copper, and vanadium were detected in the original sample at concentrations below the CRDLs, and were not detected in the field duplicate sample. The compound zinc was detected in both the original sample and the field duplicate at concentrations below the analytes CRDL. The non-compliance for the analytes arsenic, copper, vanadium, and zinc can be attributed to the low concentrations detected. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-2).

Two (2) of the nine (9) target analytes detected in the field sample and/or the associated duplicate in the dissolved metals analysis of sample MW05601 exhibited non-compliant RPDs (Table 2-5, page 2-8). The analytes exhibiting non-compliant RPDs were copper and zinc. Copper was detected in the field duplicate sample and was not detected in the original sample. The non-compliance for the analyte copper can be attributed to the low concentrations detected. The compound zinc was detected in the rinseate blank associated with the field duplicate pair (Table 4-11, SDG 90081). The non-compliance for zinc can be attributed to field contamination. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-2).

Three (3) of the fourteen (14) target analytes detected in the field sample and/or the associated duplicate in the dissolved metals analysis of sample MW06901 exhibited non-compliant RPDs (Table 2-5, page 2-9). The analytes exhibiting non-compliant RPDs were antimony, lead, and manganese. All of the detected concentrations were less than the analyte CRDLs. The non-compliance for the analytes antimony, lead, and manganese can be attributed to the low concentrations detected. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-2).

Five (5) of the eleven (11) target analytes detected in the field sample and/or the associated duplicate in the dissolved metals analysis of sample MW07901 exhibited non-compliant RPDs (Table 2-5, page 2-9). The analytes exhibiting non-compliant RPDs were antimony, chromium, iron, lead, and zinc. Antimony and chromium were detected in the original sample but not in the field duplicate sample. Lead was detected in the field duplicate sample but not in the original sample. The non-compliance for the analytes antimony, chromium, and lead can be attributed to the low concentrations detected. The compound zinc was detected in the rinseate blank associated with the field duplicate pair (Table 4-11, SDG 90084). The non-compliance for zinc can be attributed to field contamination. The non-compliance for the analyte iron could be attributed to field and/or laboratory inconsistencies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-2).

Seven (7) of the sixteen (16) target analytes detected in the field sample and/or the associated duplicate in the dissolved metals analysis of sample MW07101 exhibited non-compliant RPDs (Table 2-5, page 2-10). The analytes exhibiting non-compliant RPDs were aluminum, arsenic, chromium, copper, iron, vanadium, and zinc. Arsenic was detected in the original sample but not in the field duplicate sample. Zinc was detected in the field duplicate sample but not detected in the original sample. The analytes copper and vanadium were detected at concentrations below the analyte CRDLs in both the original sample and the field duplicate sample. The non-compliance for the analytes arsenic, copper, vanadium, and zinc can be attributed to the low concentrations detected. The compound chromium was detected in the rinseate blank associated with the field duplicate pair (Table 4-11, SDG 90079). The non-compliance for the analyte chromium can be attributed to field contamination. The non-compliance for the analytes aluminum and iron was slight, and could be attributed to field and/or laboratory inconsistencies. Assessment of the

serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-2).

The radiological gamma scan analysis of the field duplicate pair MW06901 exhibited a non-compliant RPD for the nuclide Bismuth-214. The nuclide was detected in the original sample but not in the field duplicate. The radiological gamma scan analysis of the field duplicate pair MW04501 exhibited non-compliant RPDs for the nuclides Actinium-228, Bismuth-214, Lead-214, Thallium-208, and Radium-224. The nuclides were detected in the original sample or the field duplicate, but not in both samples. The non-compliance for both field duplicate pairs can be attributed to the low level of activity detected. The samples' count rates were essentially equivalent to ambient background.

Based on assessment of duplicate precision evaluation criteria, the ground water matrix analytical data was acceptable for each SDG, with the noted potential for bias. The high incidence of non-compliance in the semivolatile, total and dissolved metals, and radiological fractions is greatly attributed to low concentrations of target compounds/analytes/nuclides detected in the samples. Further, contamination from the field and/or the laboratory impacts precision in field and matrix duplicate analyses. The non-compliance did not result in sample data qualification except in the single noted case of a non-compliant matrix duplicate RPD for aluminum in the total metals analysis of the MD pair for sample MW06601.

2.2 Surface Water Matrix

The assessment of surface water matrix environmental samples and associated duplicates for precision is provided in Tables 2-7 through 2-13. No target compounds were detected in either the water samples or associated duplicates for the Pesticides/PCB fraction (Table 2-9) or the TPH fraction (Table 2-12). Therefore, no precision assessment based on field duplicate reproducibility was possible for these parameters.

The assessment of precision based on the reproducibility of results between matrix spike and matrix spike duplicate (organic fractions), or matrix duplicate (metals fraction) pairs are provided in Tables 2-31 through 2-36. The reproducibility for MS/MSD/MD pairs was acceptable for the GC/MS Volatile fraction (Table 2-31), the Semivolatile fraction (Table 2-32), the Total Metals fraction (Table 2-34), the Dissolved Metals fraction (Table 2-35), and for the TPH fraction (Table 2-36).

The GC/MS volatile analysis of the field sample SW03601 and its associated field duplicate exhibited a non-compliant RPD for the only detected compound, acetone. The compound was detected in the field duplicate at a level less than the CRQL, and was not detected in the original sample. The non-compliance can be attributed to the low concentration detected. Further, the compound acetone is a common laboratory contaminant. Its' presence in the sample and field duplicate could be affected by its presence in the laboratory. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-1).

The semivolatile analysis of the field sample SW03601 and its associated field duplicate exhibited a non-compliant RPD for the only detected compound, di-n-butylphthalate. The compound was detected in the field duplicate at a concentration less than the CRQL, and was not detected in the original sample. The non-compliance can be attributed to the low concentration detected. Further, the compound di-n-butylphthalate is a common laboratory contaminant. Its' presence in the sample and field duplicate could be affected by its presence in the laboratory. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-2).

The pesticide/PCB analysis of the MS/MSD pair of sample SW04301RP exhibited four (4) compounds with non-compliant RPD values. These compounds were lindane, heptachlor, aldrin, and dieldrin. The non-compliance in each case was slight. The non-compliance can be attributed to laboratory inconsistencies, i.e. spiking error. This is further evidenced by the disparity in percent recoveries (%Rs) between the MS and the MSD. The difference in recoveries range from 11% to 24% difference. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" for the non-compliant compound (Appendix A, Table A-3).

Three (3) of the twelve (12) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample SW03601 exhibited non-compliant RPDs (Table 2-10, page 2-15). The analytes exhibiting non-compliant RPDs were arsenic, lead, and magnesium. The analyte lead was detected in the field duplicate sample at a concentration below the CRDL, and was not detected in the original sample. The analyte arsenic was less than the analyte CRDL in both the original sample and the field duplicate. The non-compliance for the analytes arsenic and lead can be attributed to the low concentrations detected. The non-compliance for the analyte magnesium could be attributed to field and/or laboratory inconsistencies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-3).

One (1) of the ten (10) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample SW05401 exhibited non-compliant RPDs (Table 2-10, page 2-15). The analyte exhibiting a non-compliant RPD was lead. The analyte lead was detected in the original sample at a concentration below the CRDL, and was not detected in the field duplicate sample. The non-compliance for the analyte lead can be attributed to the low concentration detected. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-3).

Five (5) of the twelve (12) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample SW04301 exhibited non-compliant RPDs (Table 2-10, page 2-15). The analytes exhibiting non-compliant RPDs were aluminum, copper, lead, selenium, and zinc. The analytes lead and selenium were detected in the field duplicate samples at concentrations below the CRDL, and were not detected in the original field sample. The analytes copper and zinc were detected in the both samples at concentrations below the CRDL. The non-compliance for the analytes lead,

copper, zinc, and selenium can be attributed to the low concentrations detected. The analyte aluminum was detected in the rinseate blank associated with this field duplicate pair (Table 4-10, SDG 90133). The non-compliance for the analyte aluminum can be attributed to field contamination. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-3).

Two (2) of the ten (10) target analytes detected in the field sample and/or the associated duplicate in the dissolved metals analysis of sample SW05401 exhibited non-compliant RPDs (Table 2-11, page 2-16). The analytes exhibiting non-compliant RPDs were copper and zinc. The analyte copper was detected in the original field sample at a concentration less than the compound CRDL, and was not detected in the field duplicate sample. The analyte zinc was detected in both samples at concentrations less than the CRDL for zinc. The non-compliance for copper and zinc can be attributed to the low concentrations detected. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-4).

Two (2) of the ten (10) target analytes detected in the field sample and/or the associated duplicate in the dissolved metals analysis of sample SW04301 exhibited non-compliant RPDs (Table 2-11, page 2-16). The analytes exhibiting non-compliant RPDs were arsenic and zinc. Both analytes were detected in the original field sample at concentrations less than the compound CRDLs, and were not detected in the field duplicate sample. The non-compliance for copper and zinc can be attributed to the low concentrations detected. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-4).

Five (5) of the ten (10) target analytes detected in the field sample and/or the associated field duplicate in the dissolved metals analysis of sample SW03601 exhibited non-compliant RPDs (Table 2-11, page 2-16). The analytes exhibiting non-compliant RPDs were arsenic, copper, lead, selenium, and zinc. All of the detected analytes were reported at concentrations less than the analytes' CRDLs. Selenium was detected in the original sample but not in the field duplicate sample. Lead was detected in the field duplicate sample, but not in the original sample. Copper was detected in both the original sample and the field duplicate. The non-compliance for selenium, copper, and lead can be attributed to the low concentrations detected. Zinc was detected in both the original sample and the field duplicate. Zinc was also detected in the rinseate blank associated with the field duplicate pair (Table 4-11, page 4-18, SDG 90105). The non-compliance for the analyte zinc can be attributed to field contamination. Arsenic was detected in the original sample but not in the field duplicate. Arsenic was also detected at a negative concentration in the method blank associated with the field duplicate pair (Table 4-16, page 4-34, SGD 90105). The non-compliance for the analyte arsenic can be attributed to instrument anomalies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-4).

The radiological gamma-scan analysis of the field duplicate pair for sample SW05401 exhibited one (1) nuclide with a non-compliant RPD (Table 2-13). The nuclide Lead-214 was detected in the field duplicate sample, but not in the

original field sample. The level of activity detected in the field duplicate was slightly above background level. The non-compliance is attributed to the low level of activity detected.

Based on assessment of duplicate precision evaluation criteria, the surface water matrix analytical data was acceptable for each SDG.

2-3 Cone Penetrometer Water Matrix

The assessment of cone penetrometer water matrix environmental samples and associated duplicates for precision is provided in Table 2-14. The samples were analyzed for GC/MS Volatiles only. The assessment of precision based on the reproducibility of results between matrix spike and matrix spike duplicate for the cone penetrometer water samples is provided in Table 2-37. The reproducibility for MS/MSD pairs was acceptable for both of the matrix spikes performed.

The target compounds detected in the field duplicate pair of sample CW01702, 1,2-dichloroethane, benzene, and xylene, exhibited acceptable RPDs.

Two (2) of the five (5) compounds detected in the GC/MS volatile analysis of the field duplicate pair of sample CW07801 exhibited non-compliant RPDs. The non-compliant compounds were methylene chloride and 1,1-dichloroethene. Both compounds were detected in the original sample at concentrations less than the compound CRQLs, and were not detected in the field duplicate sample. The non-compliance can be attributed to the low concentrations detected. Further, methylene chloride is a common laboratory contaminant. Its' presence in the field duplicate pair could be affected by its' common presence in the laboratory. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-1).

Based on assessment of duplicate precision evaluation criteria, the cone penetrometer water matrix analytical data was acceptable for each SDG.

2-4 Surface Soil Matrix

The assessment of surface soil matrix environmental samples and associated duplicates for precision is provided in Tables 2-15 through 2-19. No target compounds were detected in either the soil samples or associated duplicates for the GC/MS Volatiles fraction (Table 2-15). Therefore, no precision assessment based on field duplicate reproducibility was possible for this fraction.

The assessment of precision based on the reproducibility of results between matrix spike and matrix spike duplicate (organic fractions), or matrix duplicate (metals fraction) pairs are provided in Tables 2-38 through 2-41. The reproducibility for MS/MSD/MD pairs was acceptable for the Semivolatile fraction (Table 2-39), and for the Pesticides/PCB fraction (Table 2-40).

The GC/MS volatile analysis of the MS/MSD pair of field sample SB05001 exhibited one (1) compound, 1,1-dichloroethene, which was non-compliant for precision. The non-compliance could be attributed to field and/or laboratory

inconsistencies and did not result in sample result qualification. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" for all of the non-compliant compounds (Appendix A, Table A-1).

The semivolatile analysis of the field duplicate pair for sample SB03601 exhibited all eleven (11) compounds with non-compliant RPDs (Table 2-16). All of the detected compounds were below the compound CRQLs in both the original sample and the field duplicate. Ten (10) of the compounds were detected in only one (1) of the two (2) samples, original or field duplicate. The non-compliance is attributed to the low concentrations detected. The non-compliance for the one (1) compound detected in both the field samples and the field duplicate, bis(2-ethylhexyl)phthalate, can be attributed to the compound's presence as a common laboratory and field duplicate contaminant. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" for all of the non-compliant compounds (Appendix A, Table A-2).

The semivolatile analysis of the field duplicate pair for sample SB05001 exhibited one (1) compound, di-n-butylphthalate, with a non-compliant RPD. The compound was detected in the original sample at a concentration below the CRQL, and was not detected in the field duplicate sample. The non-compliance can be attributed to the low concentration detected. Further, the compound di-n-butylphthalate is a common laboratory contaminant. Its' presence in the sample and field duplicate could be affected by its presence in the laboratory. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" for the non-compliant compound (Appendix A, Table A-2).

The pesticide analysis of the field duplicate pair of sample SB03601 exhibited an acceptable RPD for each the seven (7) target compounds which were detected (Table 2-17, page 2-22). The pesticide analysis of the field duplicate pair of sample SB05001 exhibited an acceptable RPD for dieldrin, the only compound detected (Table 2-17, page 2-22).

One (1) of the fifteen (15) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample SB03601 exhibited a non-compliant RPD (Table 2-18, page 2-23). The analyte exhibiting a non-compliant RPD was mercury. The analyte was not detected in the original field sample, but was detected in the field duplicate sample. The non-compliance for mercury can be attributed to the low concentrations detected. Assessment of the serial dilution criteria for the non-compliant analyte indicates that it was "in-control" (Appendix B, Table B-5).

Six (6) of the eleven (11) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample SB05001 exhibited non-compliant RPDs (Table 2-18, page 2-23). The analytes exhibiting non-compliant RPDs were mercury, aluminum, beryllium, chromium, iron, and manganese. The target analytes mercury and chromium were detected in the original sample and the field duplicate at concentrations less than the analytes' CRDLs. The analyte beryllium was detected in the original field sample at a concentration less than the CRDL, and was not detected in the

field duplicate sample. The non-compliance for beryllium, chromium, and mercury can be attributed to the low concentrations detected. The analyte iron was detected in the method blank associated with the field duplicate pair (Table 4-15, SDG 90026). The non-compliance for iron can be attributed to laboratory contamination. The target analytes aluminum and manganese exhibited non-compliant RPDs in the matrix duplicate analysis of the original field sample as well as non-compliance of the field duplicate pair RPDs (Table 2-41, SDG 90026). The non-compliance could be attributed to sample inhomogeneity. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-5).

Four (4) of the ten (10) target analytes detected in the field sample and/or the associated duplicate in the total metals analysis of sample SB06801 exhibited non-compliant RPDs (Table 2-18, page 2-23). The analytes exhibiting non-compliant RPDs were calcium, magnesium, manganese, and zinc. Calcium, manganese, and zinc were detected in the preparation blank associated with the field duplicate sample (Table 4-15, SDG 90065). The non-compliance for calcium, manganese, and zinc can be attributed to laboratory contamination. The non-compliance for the analyte magnesium could be attributed to laboratory and/or field inconsistencies, i.e. inhomogeneous sample aliquot. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-5).

One (1) of the matrix duplicate (MD) pairs, sample SB03601, analyzed for the total metals fraction exhibited non-compliant RPDs for the analytes aluminum, cadmium, calcium, and manganese (Table 2-41, page 2-87). The RPD values for these four (4) compounds were 35.8 percent difference (%D), 200%D, 44.5%D, and 87%D, respectively. The non-compliance could be attributed to laboratory inconsistencies, i.e. inhomogeneous sample aliquot. The reported aluminum, cadmium, calcium, and manganese results in field samples associated with SDG 03801 were qualified as estimated, J or UJ, and should be considered bias low.

The matrix duplicate pair of sample SB05001, analyzed for the total metals fraction, exhibited non-compliant RPDs for the analytes aluminum, iron, manganese, and mercury (Table 2-41, page 2-88). The RPD values for these four (4) compounds were 33.3%D, 20.3%D, 44.1%D, and 54.2%D, respectively. The non-compliance could be attributed to laboratory inconsistencies, i.e. inhomogeneous sample aliquot. The reported manganese and mercury results in field samples associated with SDG 90026 were qualified as estimated, J or UJ, and should be considered bias low. The non-compliance for the analytes aluminum and iron was slight, and did not result in qualification of the field sample results.

The matrix duplicate pair of sample SB06401, analyzed for the total metals fraction, exhibited non-compliant RPDs for the analytes iron and lead (Table 2-41, page 2-89). The RPD values for these two (2) compounds were 55.4%D, and 20.2%D, respectively. The non-compliance could be attributed to laboratory inconsistencies, i.e. inhomogeneous sample aliquot. The reported iron results in field samples associated with SDG 02EB were qualified as estimated, J or UJ, and should be considered bias low. The non-compliance for the analyte

lead was slight, and did not result in qualification of the field sample results.

The matrix duplicate pair of sample SB06801, analyzed for the total metals fraction, exhibited non-compliant RPDs for the analytes lead and zinc (Table 2-41, page 2-90). The RPD values for these two (2) compounds were 45.8%D, and 80.3%D, respectively. The non-compliance could be attributed to laboratory inconsistencies, i.e. inhomogeneous sample aliquot. The reported lead and zinc results in field samples associated with SDG 90065 were qualified as estimated, J or UJ, and should be considered bias low. The non-compliance for the analyte lead was slight, and did not result in qualification of the field sample results.

The radiological gamma scan analysis of the field duplicate pair SB05001 exhibited non-compliant RPDs for the nuclides Bismuth-214, Radium-224, Thorium-234, Uranium-234, and Uranium-238 (Table 2-19). The nuclide Radium-224 was detected in the field duplicate, but not in the original sample. The nuclide was also detected in the associated method blank (Table 4-17). The non-compliance can be attributed to the laboratory contamination. The non-compliance for the nuclides Bismuth-214, Thorium-234, and Uranium-234 could be attributed to laboratory and/or field inconsistencies. The radiological gamma scan analysis of the field duplicate pair SB06801 exhibited non-compliant RPDs for the nuclides Radium-224, Thorium-231, and Thorium-234. The nuclides were detected in the original sample or the field duplicate, but not in both samples. The nuclides Radium-234 and Thorium-234 were detected in the method blank associated with the field duplicate pair (Table 4-17). The non-compliance for the nuclides Radium-234 and Thorium-234 can be attributed to laboratory contamination. The non-compliance for the nuclide Thorium-231 can be attributed to the low level of activity detected. In addition, the samples' count rates were essentially equivalent to ambient background.

Based on assessment of duplicate precision evaluation criteria, the surface soil matrix analytical data was acceptable for each SDG with the noted potential for bias.

2-4 Sediment Sample Matrix

The assessment of sediment matrix environmental samples and associated duplicates for precision is provided in Tables 2-20 through 2-25. Field duplicate precision for the field duplicate pairs analyzed for the Total Petroleum Hydrocarbon fraction exhibited acceptable RPDs (Table 2-24).

The assessment of precision based on the reproducibility of results between matrix spike and matrix spike duplicate (organic fractions), or matrix duplicate (metals fraction) pairs are provided in Tables 2-42 through 2-46. The reproducibility for MS/MSD/MD pairs was acceptable for the Volatile fraction (Table 2-42), the Pesticides/PCB fraction (Table 2-44) and the Total Petroleum Hydrocarbon fraction (Table 2-46).

The GC/MS volatile analysis of the field sample SD03601 and its associated field duplicate exhibited a non-compliant RPD for the only detected compound, 2-butanone (Table 2-20). The non-compliance was slight and could be attribut-

ed to the laboratory and/or field inconsistencies, i.e. an inhomogeneous aliquot. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-1).

The GC/MS volatile analysis of the field sample SD05401 and its associated field duplicate exhibited a non-compliant RPD for the only detected compound, 2-butanone (Table 2-20). The compound was detected in the original sample at a concentration less than the CRQL, and in the field duplicate sample at a concentration above the CRQL. The non-compliance can be attributed to the low concentrations detected. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-1).

The GC/MS volatile analysis of the field sample SD04301 and its associated field duplicate exhibited non-compliant RPDs for the two (2) detected compounds, 2-butanone and acetone (Table 2-20). The compounds acetone and 2-butanone are a common laboratory contaminant. Their presence in the sample and field duplicate could be affected by their common presence in the laboratory. The non-compliance could be attributed to laboratory inconsistencies. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-1).

The semivolatile analysis of the field sample SD03601 and its associated duplicate exhibited non-compliant RPDs for five (5) of the ten (10) target compounds detected (Table 2-21). Threw (3) of the non compliant compounds, phenol, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene were detected in the original sample but not in the field duplicate sample. The other two (2) non compliant compounds, phenanthrene and bis(2-ethylhexyl)phthalate were detected in the field duplicate sample, but not in the original sample. The non-compliance can be attributed to the low concentrations detected. Further, bis(2-ethylhexyl)phthalate is a common laboratory contaminant. Its' presence in the sample and field duplicate could be affected by its' common presence in the laboratory. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-2).

The MS/MSD semivolatile analysis of the sample SD03601 exhibited six (6) spike compounds with non-compliant RPDs (Table 2-27). Based on the assessment of other QC criteria, the non-compliance did not result in qualification of the field sample data. The RPDs are the result of significantly higher recoveries in the MSD than the MS. The non-compliance could be attributed to an inhomogeneous sample aliquot from which the split sample was taken or spiking inconsistencies.

The MS/MSD semivolatile analysis of the sample SD04301RP exhibited all eleven (11) spike compounds with non-compliant RPDs (Table 2-27). Based on the assessment of other QC criteria, the non-compliance did not result in qualification of the field sample data. The RPDs are the result of significantly higher recoveries in the MS than the MSD for all but one (1) compound, 1,2,4-trichlorobenzene. The non-compliance could be attributed to an inhomogeneous sample aliquot from which the split sample was taken or spiking inconsistencies.

The pesticide analysis of field sample SD03601 and its associated field duplicate exhibited two (2) compounds with non-compliant RPDs (Table 2-22). The non-compliant compounds were 4,4'-DDE and AR1260. The compound 4,4'-DDE was detected in the field duplicate at a concentration less than the CRQL, and in the original sample above the CRQL. The non-compliance for the compound 4,4'-DDE can be attributed to the low concentration detected, as well as to the presence of the multi-component compound, AR1260, which can affect quantitation of single component pesticides. The non-compliance for the compound AR1260 could be attributed to laboratory and/or field inconsistencies. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-3).

The pesticide analysis of field sample SD05401 and its associated field duplicate exhibited one (1) compound with a non-compliant RPD (Table 2-22). The non-compliant compound was AR1260. The sample and the field duplicate were analyzed at different dilution factors, which can attribute to differences in quantitation. The non-compliance for the compound AR1260 could be attributed to laboratory inconsistencies. Assessment of the initial and continuing calibration criteria indicates that the system was "in-control" (Appendix A, Table A-3).

Eight (8) of the sixteen (16) target analytes detected in the field duplicate pair of sample SD05401 exhibited non-compliant RPDs. The non-compliant analytes were calcium, cobalt, copper, lead, magnesium, mercury, nickel and zinc. The analyte mercury was detected in the original sample at a concentration less than the CRDL, and in the field duplicate at a concentration slightly above the CRDL. The analyte nickel was detected in the field duplicate, and not in the original sample. The analyte magnesium was detected in both the original sample and the field duplicate at concentrations less than the analyte CRDLs. The non-compliance for mercury, nickel, and magnesium can be attributed to the low concentrations detected. The analytes cobalt and zinc were detected in the rinse blank associated with the field duplicate pair (Table 4-10). The non-compliance for cobalt and zinc can be attributed to field contamination. The target analytes copper and lead were detected with negative bias in the preparation blank associated with the field duplicate pair (Table 4-15). The non-compliance can be attributed to instrument inconsistencies. The target analyte calcium exhibited a non-compliant serial dilution %Difference in one (1) of the serial dilutions associated with the samples. This type of deficiency is indicative of matrix interference. The non-compliance for the analyte calcium can be attributed to potential matrix interference. Assessment of the serial dilution criteria for other analytes indicates that they were "in-control" (Appendix B, Table B-6).

Four (4) of the thirteen (13) target analytes detected in the field duplicate pair of sample SD03601 exhibited non-compliant RPDs. The non-compliant target analytes were aluminum, beryllium, chromium, and mercury. The target analyte aluminum exhibited a non-compliant serial dilution %Difference in one (1) of the serial dilutions associated with the samples (Appendix B, Table B-6). This type of deficiency is indicative of matrix interference. The non-compliance for the analyte aluminum can be attributed to potential matrix interference. The target analyte beryllium was detected in the field duplicate sample, but not in the original sample. The target analyte mercury was

detected in the original sample, and in the field duplicate at a concentration below the CRDL. The non-compliance for the analytes mercury and beryllium can be attributed to the low concentrations detected. The target analyte chromium was also detected in the preparation blank associated with the field duplicate pair (Table 4-15). The non-compliance for chromium can be attributed to laboratory contamination. Assessment of the serial dilution criteria for other analytes indicates that they were "in-control" (Appendix B, Table B-6).

The analyte calcium exhibited a non-compliant RPD in the MD pair of sample SD06001 (Table 2-45, page 2-104). The non-compliance could be attributed to sample inhomogeneity. The positive and non-detect results for the analyte in associated samples from SDGs 90147 and 90141 were qualified as estimated, J or UJ.

Two (2) of the eight (8) nuclides detected in the field duplicate pair of sample SD03601 exhibited non-compliant RPDs (Table 2-25). The non-compliant nuclides were Bismuth-212 and Uranium-235. Three (3) of eight (8) nuclides detected in the field duplicate pair of sample SD05401 exhibited non-compliant RPDs (Table 2-25). They were Bismuth-212, Thorium-228, and Uranium-235. The results in the field samples associated with these field duplicate pairs were rejected due to extremely high levels of preparation blank contamination (Table 4-17). (Representativeness based on blank contamination is discussed in Section 4) Contamination levels of the magnitude noted could affect the detection of other nuclides in the sample. The non-compliance in these field duplicate pairs can be attributed to laboratory contamination.

Five (5) of the five (5) nuclides detected in the field duplicate pair of sample SD04301 exhibited non-compliant RPDs (Table 2-25). These nuclides were Cesium-137, Lead-212, Lead-214, Thallium-208, and Uranium-235. The nuclides Lead-212, Lead-214, and Thallium-208 were detected in the preparation blank associated with the field duplicate pair (Table 4-17). The nuclides were also detected in the field sample or the duplicate, but not both. The non-compliance can be attributed to laboratory contamination. Uranium-235 was detected in the field duplicate sample, and not in the original field sample. The non-compliance for Uranium-235 can be attributed to the low level of activity detected. The nuclide Cesium-137 exhibited an RPD slightly above 35%, at 38%. The non-compliance was slight and could be attributed to laboratory and/or field inconsistencies.

Based on assessment of duplicate precision evaluation criteria, the sediment matrix analytical data was acceptable for each SDG for the GC/MS volatiles, semivolatiles, pesticides/PCBs, total and dissolved metals, and total petroleum hydrocarbons, with the noted potential for bias. Duplicate precision for the radiological parameters was adversely impacted by preparation blank contamination which lead to rejection of sample results. However, the rejections were not due to non-compliant precision results. (Qualifications/rejections based on Representativeness is discussed in Section 4). Therefore, based on the assessment of duplicate precision evaluation criteria, the sediment matrix analytical data was acceptable for the radiological fraction.

3.0 ACCURACY

The assessment of accuracy is evaluated by comparison of the percent recoveries (%R) computed from the known concentration of analyte spikes and their recovered concentration versus the analytical method acceptance criteria. Spike recoveries provide an indication of bias, where the reported data may either overestimate or underestimate the actual concentration of detected compounds and/or the detection limits. Recoveries outside acceptable criteria may be caused by factors such as matrix interference, poor analytical precision, or instrument calibration.

The following Sections summarize the evaluation of analytical accuracy for the water matrix and the soil matrix for the following analytical groups:

- GC/MS volatile organic compounds (GC/MS VOCs);
- semivolatile organic compounds (SVOCs);
- pesticides, PCBs;
- total metals, and
- total petroleum hydrocarbon (TPH).

Accuracy was assessed using MS and MSD samples for organic analyses and MS samples for inorganic analyses for the monitoring well water samples, as well as surrogate compound recoveries for those analytical fractions which utilize them. The results of the evaluation of accuracy for the MS/MSD samples are provided in Tables 2-26 through 2-30 for the ground water matrix, 2-31 through 2-36 for the surface water matrix, 2-37 for the cone penetrometer water matrix, 2-38 through 2-41 for the surface soil matrix, and 2-42 through 2-46 for the sediment matrix. The results of the evaluation of accuracy for the surrogates in the samples are provided in Tables 3-1 through 3-3 for the water matrix and Tables 3-4 through 3-6 for the soil/sediment matrix.

3.1 Water Matrix

The MS/MSD sample pairs for groundwater and surface water analyzed for pesticides/PCBs exhibited "in-control" recovery results (Tables 2-28 & 2-33). The MS/MSD pairs for surface water analyzed for GC/MS volatiles and total petroleum hydrocarbons exhibited "in-control" recovery results (Tables 2-31 & 2-36). The MS/MSD pairs for cone penetrometer water analyzed for GC/MS volatiles exhibited "in-control" recovery results (Table 2-37).

Groundwater Matrix

The volatile MS/MSD of sample MW06101 exhibited one (1) non-compliant compound recovery (Table 2-26). Chlorobenzene was recovered below the QC limit in the MS, but was recovered acceptably in the MSD. The non-compliance was slight (70% recovery with a lower QC limit of 75%), and based on the assessment of other QC criteria did not result in sample result qualification.

The semivolatile MS/MSDs of samples MW06101 and MW05601RP exhibited one (1) compound, pentachlorophenol, which was recovered above the QC limits in both the MS and the MSD (Table 2-27, page 2-36 & 2-38). This indicates that any quantified values for pentachlorophenol results in the associated field

TABLE 3.1

**SURROGATE % RECOVERIES
GC/MS VOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
90026	SB00001EB (1)	104	95	99	0
	SB00001FB (1)	102	105	102	0
	SB00001TB (1)	105	114	99	0
02EB	SB02EB (1)	102	103	92	0
	SB02TB (1)	103	97	90	0
	SB03EB (1)	102	98	93	0
	SB03TB (1)	103	97	92	0
03801	SB04EB (1)	108	94	88	0
	SB04TB (1)	100	96	79	0
	SB05EB(1)	107	94	89	0
	SB05TB (1)	108	92	88	0
	SB06EB (1)	106	93	90	0
	SB06TB (1)	107	95	89	0
	SB07EB (1)	108	92	92	0
	SB07TB (1)	106	94	89	0
	SB08EB (1)	106	92	90	0
90065	SB00002FB (1)	110	97	104	0
	SB00009EB (1)	109	96	105	0
	SB00009TB (1)	110	97	105	0
90067	SB00001EB (1)	98	95	95	0
	SB00001TB (1)	98	98	97	0
012EB (90073)	MW0012EB	102	98	93	0
	MW0012TB	102	98	96	0
	MW4101	101	95	84	0
	MW4201	99	96	84	0
	MW4501	103	99	93	0
	MW4501MS	92	100	95	0
	MW4501MSD	93	97	93	0
	MW4501RP	103	98	93	0
	MW5201	102	99	92	0
	MW5301	102	100	94	0
	MW5801	101	96	85	0
	MW5901	100	94	77	0
003FB (90072)	MW0003FB	104	99	97	0
	MW0011EB	102	98	95	0
	MW0011TB	104	98	97	0
	MW06601	105	96	96	0
	MW07601	104	98	96	0

TABLE 3.1, CONTINUED

SURROGATE % RECOVERIES
GC/MS VOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
90076	MW00013EB	100	98	90	0
	MW00013TB	101	99	91	0
	MW00701	96	99	88	0
	MW01001	100	100	89	0
	MW03501	101	100	89	0
	MW03601	98	98	88	0
	MW03901	102	99	91	0
	MW04001	101	99	90	0
	MW04601	101	100	90	0
	MW04701	100	99	88	0
	MW04801	110	91	86	0
	MW04901	106	92	89	0
	MW05001	100	100	85	0
	MW05101	102	100	86	0
	MW05401	100	98	87	0
	MW05401RP	100	100	84	0
	MW08001	99	100	90	0
MW08101	100	98	89	0	
90078	MW00014EB	102	101	90	0
	MW00014TB	102	100	90	0
	MW00901	102	100	89	0
	MW06101	108	92	87	0
	MW06201	100	98	87	0
	MW06701	101	98	88	0
	MW07001	101	100	89	0
	MW07101	100	100	88	0
	MW07101RP	103	101	87	0
	MW07201	*113	94	87	1
	MW07201RE	97	107	88	0
	MW07701	103	101	86	0
	MW08201	101	100	90	0
	MW08301	101	101	90	0
	MW06101MS	106	98	88	0
MW06101MSD	102	99	89	0	
03501	SW0004FB	100	102	88	0
	SW00019EB	100	104	88	0
	SW00019TB	100	106	86	0
	SW03501	99	103	88	0
	SW03601	99	102	85	0
	SW03601MS	96	98	92	0
	SW03601MSD	94	96	94	0
SW03601RP	100	102	90	0	

TABLE 3.1, CONTINUED

**SURROGATE % RECOVERIES
GC/MS VOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
017EB	MW00017EB	102	92	88	0
	MW00017TB	104	94	88	0
	MW00018EB	104	90	80	0
	MW00018TB	102	92	80	0
	MW0601	104	90	78	0
	MW0601MS	92	*82	91	1
	MW0601MSD	90	*81	93	1
	MW0801	104	90	80	0
	MW1101	104	92	88	0
	MW3701	106	86	80	0
	MW3801	104	90	80	0
	MW4301	104	90	80	0
	MW4401	104	92	82	0
	MW6801	106	92	84	0
	MW6901	104	92	82	0
	MW6901RP	104	92	80	0
	MW7801	106	92	86	0
	MW7901	104	92	88	0
MW7901RP	106	92	90	0	
90082	MW00016EB	98	98	99	0
	MW00016TB	105	99	94	0
	MW05501	98	98	98	0
	MW05601	101	101	98	0
	MW05601RP	100	99	100	0
	MW05701	97	98	108	0
	MW06001	100	99	105	0
	MW06301	99	98	100	0
	MW06401	100	98	101	0
	MW06501	97	98	99	0
	MW07301	99	97	100	0
	MW07401	98	97	102	0
	MW07501	99	98	99	0
	MW05601MS	100	99	100	0
MW05601MSD	101	98	99	0	
90115	SW0021EB	98	100	99	0
	SW00021TB	96	100	99	0
	SW05001	93	96	100	0
	SW05401	94	97	99	0
	SW05401RP	93	98	101	0
90120	SW00023EB	105	99	105	0
	SW00023TB	104	99	108	0
	SW03801	104	99	106	0

TABLE 3.1, CONTINUED
SURROGATE % RECOVERIES
GC/MS VOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
90109	SW00020EB	98	98	105	0
	SW00020TB	96	95	99	0
	SW03401	97	100	107	0
	SW05101	99	101	106	0
	SW05601	96	99	107	0
90118	SW00022EB	98	100	104	0
	SW00022TB	96	97	104	0
	SW05701	97	98	103	0
90123	SW00024EB	100	100	110	0
	SW00024TB	98	98	105	0
	SW04501	99	101	106	0
	SW04601	98	101	108	0
	SW04701	99	100	111	0
90129	SW00025EB	104	101	107	0
	SW00026TB	105	102	107	0
	SW03701	103	101	107	0
90133	SW00028EB	99	97	109	0
	SW00027TB	101	100	106	0
	SW04301	101	100	108	0
	SW04301RP	99	99	106	0
	SW04301MD	99	103	108	0
90136	SW04301MS	98	101	111	0
	SW00030EB	98	99	108	0
	SW00028TB	97	100	109	0
	SW04101	100	99	110	0
90144	SW04201	97	96	100	0
	CW00032TB	99	102	108	0
	CW00036EB	100	101	107	0
	CW01401	101	102	107	0
	CW01402	98	100	107	0
	CW01501	101	103	110	0
90143	CW01502	98	101	108	0
	CW01602	102	104	106	0
	CW00031TB	103	103	105	0
	CW00034EB	97	95	102	0
	CW01601	96	97	100	0
	CW01701	96	94	102	0
	CW01702	96	98	102	0
	CW01702RP	96	97	101	0
CW01702MD	95	95	103	0	
CW01702MS	96	98	104	0	

TABLE 3 - 2
SURROGATE % RECOVERIES
SEMIVOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	S1	S2	S3	S4	S5	S6	S7	S8	TOTAL OUT
80026	SB00001EB (1)	101	99	101	90	83	84	101	85	0
	SB00001FB (1)	97	84	100	87	88	80	95	89	0
02EB	SB02EB (1)	62	80	88	64	57	83	63	58	0
	SB03EB (1)	66	82	88	67	61	88	67	64	0
03801	SB04EB (1)	70	70	92	69	66	84	71	62	0
	SB05EB (1)	74	70	96	75	72	88	72	62	0
	SB06EB (1)	78	72	100	77	73	92	73	94	0
	SB07EB (1)	66	82	88	65	61	81	64	58	0
	SB08EB (1)	78	70	100	73	69	89	72	84	0
90065	SB00002FB (1)	97	86	87	87	82	59	86	88	0
	SB00009EB (1)	99	88	86	92	87	85	89	88	0
90067	SB00001EB (1)	99	88	85	93	90	86	90	88	0
012EB (90073)	MW0012EB	80	78	114	95	81	89	80	80	0
	MW4101	62	62	78	77	67	91	65	58	0
	MW4201	62	62	72	47	67	83	65	62	0
	MW4501	76	74	50	92	78	97	78	72	0
	MW4501MS	68	68	42	81	68	89	69	66	0
	MW4501MSD	74	74	44	85	73	91	72	70	0
	MW4501RP	76	78	72	92	80	99	79	78	0
	MW5201	78	78	72	96	80	96	80	80	0
	MW5301	74	78	88	21	56	93	44	72	0
	MW5801	74	72	36	84	75	91	75	74	0
	MW5901	70	72	80	35	68	77	52	66	0
003FB (90072)	MW0003FB	66	56	94	81	73	87	69	60	0
	MW0011EB	68	58	92	77	69	64	98	62	0
	MW06601	60	54	80	75	64	72	93	58	0
	MW07601	58	54	*28	72	64	65	93	56	1
90076	MW00013EB	94	101	110	92	87	82	93	81	0
	MW00701	99	103	98	25	89	75	78	86	0
	MW01001	91	104	100	98	93	79	110	93	0
	MW03501	90	99	100	87	85	90	81	90	0
	MW03601	81	79	89	83	86	77	80	75	0
	MW03901	91	97	111	88	80	82	90	83	0
	MW04001	96	104	92	51	87	87	96	94	0
	MW04601	93	97	76	92	86	83	92	85	0
	MW04701	78	81	93	70	65	78	69	78	0
	MW04801	81	85	94	74	69	75	74	83	0
	MW04901	76	84	82	74	70	79	73	82	0
	MW05001	83	79	74	75	71	73	82	82	0
	MW05101	78	81	81	75	70	78	73	79	0
	MW05401	76	80	107	72	66	79	70	74	0
	MW05401RP	82	101	124	84	79	76	90	83	0
	MW08001	93	99	107	90	86	85	92	89	0

TABLE 3 - 2, CONTINUED

SURROGATE % RECOVERIES
SEMIVOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	S1	S2	S3	S4	S5	S6	S7	S8	TOTAL OUT
90078	MW00014EB	81	85	102	76	66	77	77	68	0
	MW00901	97	88	94	42	21	81	83	55	0
	MW06101	79	78	98	81	71	88	83	55	0
	MW06201	91	92	102	84	75	82	86	75	0
	MW06701	88	90	103	82	72	83	83	74	0
	MW07001	89	91	103	87	78	87	85	71	0
	MW07101	85	84	103	79	69	83	80	82	0
	MW07101RP	81	87	105	78	66	80	77	83	0
	MW07201	84	76	102	82	73	80	83	57	0
	MW07701	82	88	93	82	75	80	87	71	0
	MW08201	82	80	95	74	64	84	78	54	0
	MW08301	88	79	89	86	76	77	88	80	0
	MW06101MS	86	88	89	84	75	86	85	69	0
	MW06101MSD	76	81	87	76	81	78	74	52	0
03501	SW0004FB	60	58	84	81	51	59	59	60	0
	SW00019EB	82	80	94	58	44	56	56	58	0
	SW03501	60	58	70	81	56	87	80	58	0
	SW03801	68	64	70	71	51	92	65	62	0
	SW03801MS	68	64	72	72	51	91	87	66	0
	SW03801MSD	68	68	80	71	51	93	65	62	0
	SW03801RP	64	68	82	69	63	93	67	64	0
017EB	MW00017EB	64	80	84	89	64	61	64	82	0
	MW00018EB	60	56	62	65	63	68	81	60	0
	MW0601	60	64	54	73	64	65	67	62	0
	MW0601MS	80	88	96	93	75	115	83	72	0
	MW0601MSD	92	92	92	109	93	120	99	92	0
	MW0801	40	*40	50	49	37	52	44	38	1
	MW1101	80	56	50	56	56	60	59	80	0
	MW3701	60	54	*24	68	57	88	64	60	1
	MW3801	58	52	62	88	57	84	61	58	0
	MW4301	58	54	*32	81	53	65	57	56	1
	MW4401	58	56	50	63	57	67	59	58	0
	MW6801	80	56	*28	85	61	69	60	60	0
	MW6901	82	56	44	87	83	68	64	64	1
	MW6901RP	62	60	60	89	64	64	65	64	0
	MW7801	52	46	*28	55	52	80	55	52	0
	MW7901	58	52	34	61	57	61	59	56	0
MW7901RP	62	60	52	67	83	73	65	62	0	
90082	MW00018EB	84	91	137	79	72	64	84	72	0
	MW05501	77	96	90	73	68	78	79	74	0
	MW05601	91	88	113	84	77	74	88	67	0
	MW05801RP	84	99	105	84	77	79	88	84	0
	MW05701	79	102	115	83	73	94	84	69	0
	MW06001	82	104	102	80	75	89	85	78	0
	MW06301	64	62	48	77	64	81	67	56	0
	MW06401	80	102	107	78	70	89	81	78	0
	MW06501	85	95	113	84	78	88	90	73	0
	MW07301	79	101	125	80	73	90	83	70	0
	MW07401	86	109	106	83	78	89	88	82	0
	MW07501	81	100	124	76	71	80	82	74	0
	MW05801MS	87	80	106	80	70	76	80	69	0
	MW05601MSD	86	87	104	76	67	75	78	71	0

TABLE 3 - 2, CONTINUED
SURROGATE % RECOVERIES
SEMIVOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	S1	S2	S3	S4	S5	S6	S7	S8	TOTAL OUT
90115	SW0021EB	81	78	75	78	77	58	79	81	0
	SW05001	70	65	*21	59	65	64	66	68	1
	SW05401	82	78	34	81	88	82	82	80	0
	SW05401RP	79	73	34	75	87	79	79	79	0
90120	SW00023EB	95	89	71	92	92	75	88	89	0
	SW03801	95	83	49	99	100	90	94	87	0
90109	SW00020EB	101	85	88	93	101	83	95	88	0
	SW03401	99	83	50	92	105	91	97	87	0
	SW05101	95	48	*21	95	104	64	97	75	1
	SW05601	86	63	*22	75	87	73	84	75	1
90118	SW00022EB	97	87	86	96	90	73	91	89	0
	SW05701	97	86	44	101	102	97	96	90	0
90123	SW00024EB	92	87	42	89	91	65	88	86	0
	SW04501	89	61	*26	90	95	73	89	78	1
	SW04801	86	79	*28	83	85	81	84	80	1
	SW04701	87	74	*22	85	91	81	88	80	1
	SW05501	93	80	36	96	102	92	94	87	0
90129	SW00025EB	93	89	85	86	88	68	88	87	0
	SW03701	93	82	45	89	89	84	88	86	0
90133	SW00028EB	86	82	77	82	84	73	81	80	0
	SW04301	90	84	41	86	92	85	86	82	0
	SW04301RP	87	79	40	83	87	85	83	81	0
	SW04301MD	83	76	37	80	79	81	79	75	0
	SW04301MS	90	80	*31	83	85	85	84	81	1
90136	SW00030EB	91	83	82	83	84	69	85	85	0
	SW04101	82	76	37	81	83	82	80	77	0
	SW04201	87	78	35	82	85	78	82	81	0
90138	SW00033EB	106	101	100	98	95	95	96	97	0
	SW04001	106	100	58	99	102	109	98	100	0
	SW05801	103	96	52	97	99	103	96	94	0
90141	SW00035EB	110	102	85	100	96	96	98	100	0
	SW06101	100	92	40	95	92	101	93	89	0
	SW06201	104	96	39	97	96	103	95	94	0
90147	SW00037EB	95	86	68	96	93	90	89	89	0
	SW05901	85	77	*25	75	85	85	81	79	1
	SW06001	91	77	*32	85	95	88	88	86	1

(1) - FIELD QA/QC FOR SOIL SAMPLES

S1 = NITROBENZENE-D5	QC LIMITS 35% - 114%	
S2 = 2-FLUOROBIPHENYL	QC LIMITS 43% - 116%	
S3 = TERPHENYL-D14	QC LIMITS 33% - 141%	
S4 = PHENOL-D5	QC LIMITS 10% - 110%	
S5 = 2-FLUOROPHENOL	QC LIMITS 21% - 110%	
S6 = 2,4,6-TRIBROMOPHENOL	QC LIMITS 10% - 123%	
S7 = 2-CHLOROPHENOL-D4	QC LIMITS 33% - 110%	(ADVISORY)
S8 = 1,2-DICHLOROBENZENE-D4	QC LIMITS 16% - 110%	(ADVISORY)

D - INDICATES SURROGATE DILUTED OUT
 * - INDICATES VALUE OUTSIDE QC LIMITS

# SAMPLES	% REC IN	% REC OUT	% TOTAL IN
131	1034	14	98.7%

TABLE 3 - 3

**SURROGATE % RECOVERIES
PESTICIDE/PCB WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	TCX1	TCX2	DCB1	DCB2	TOTAL OUT
90026	SB00001EB (1)	96	89	72	70	0
	SB00001FB (1)	68	63	102	98	0
02EB	SB02EB (1)	105	95	*32	*30	2
	SB03EB (1)	85	80	*45	*47	2
03801	SB04EB (1)	95	85	*55	*49	2
	SB05EB (1)	90	80	*38	*37	2
	SB06EB (1)	90	75	65	60	0
	SB07EB (1)	110	95	70	70	0
	SB08EB (1)	75	60	*50	*55	2
90065	SB00002FB (1)	68	70	103	96	0
	SB00009EB (1)	91	90	106	105	0
90067	SB00001EB (1)	*54	*56	67	73	0
012EB (90073)	MW0012EB	110	65	65	65	0
	MW4101	85	75	*32	*37	2
	MW4201	85	75	*49	*55	2
	MW4501	75	65	*31	*36	2
	MW4501MS	70	60	*31	*36	2
	MW4501MSD	70	65	*30	*35	2
	MW4501RP	75	70	*29	*33	2
	MW5201	105	95	*46	*50	2
	MW5301	95	85	*35	*36	2
	MW5801	*50	*38	*23	*28	4
003FB (90072)	MW0003FB	90	85	90	95	0
	MW0011EB	100	90	75	80	0
	MW06601	90	85	*37	*40	2
	MW07601	100	80	*23	*25	2
90076	MW00013EB	79	79	*59	*53	2
	MW00701	*49	*49	*24	*21	4
	MW01001	89	78	80	74	0
	MW03501	77	79	*26	*23	2
	MW03601	78	78	*27	*24	2
	MW03901	78	75	*30	*25	2
	MW04001	86	89	*33	*29	2
	MW04601	85	84	*40	*36	2
	MW04701	75	77	*20	*18	2
	MW04801	83	86	63	*57	1
	MW04901	74	78	*23	*20	2
	MW05001	61	62	*30	*26	2
	MW05101	88	84	*18	*15	2
	MW05401	89	88	*34	*33	2
	MW05401RP	82	83	*28	*25	2
	MW05401RPMS	79	79	*30	*27	2
	MW05401RPMSD	80	79	*20	*18	2
	MW08001	96	88	*35	*31	2
	MW08101	79	101	*44	*40	2

TABLE 3 - 3, CONTINUED

**SURROGATE % RECOVERIES
PESTICIDE/PCB WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	TCX1	TCX2	DCB1	DCB2	TOTAL OUT
90078	MW00014EB	85	87	77	74	0
	MW00901	79	86	*44	*41	2
	MW06101	79	76	*24	*23	2
	MW06201	71	72	*32	*31	2
	MW06701	79	81	*26	*23	2
	MW07001	84	83	*31	*31	2
	MW07101	77	79	*31	*33	2
	MW07101RP	78	75	*25	*24	2
	MW07201	79	81	*30	*30	2
	MW07701	84	79	*26	*24	2
	MW08201	73	78	*24	*24	2
	MW08301	77	81	*56	*53	2
	MW06101MS	80	77	*21	*21	2
	MW06101MSD	82	80	*26	*26	2
03501	SW0004FB	*59	66	104	98	1
	SW00019EB	65	70	88	88	0
	SW03501	*56	*44	104	100	2
	SW03601	*59	*50	102	100	2
	SW03601MS	*51	66	92	94	1
	SW03601MSD	62	77	96	98	0
SW03601RP	*57	*43	100	98	2	
017EB	MW00017EB	95	75	60	65	0
	MW00018EB	110	85	85	85	0
	MW0601	100	75	60	65	0
	MW0601MS	105	60	60	60	0
	MW0601MSD	120	60	*55	*55	2
	MW0801	90	85	65	70	0
	MW1101	85	85	80	85	0
	MW3701	100	80	*36	*34	2
	MW3801	110	90	95	90	0
	MW4301	125	120	*49	*50	2
	MW4401	90	70	*48	*50	2
	MW6801	90	85	*31	*33	2
	MW6901	95	85	*42	*44	2
	MW6901RP	100	95	70	75	0
	MW7801	85	70	*32	*34	2
MW7901	75	70	*36	*39	2	
MW7901RP	100	85	*55	60	1	
90082	MW00016EB	115	80	90	100	0
	MW05501	80	85	*24	*28	2
	MW05601	95	80	*55	60	1
	MW05601MS	95	75	*55	60	1
	MW05601MSD	100	80	*43	*46	2
	MW05601RP	95	80	*55	60	1
	MW05701	60	60	*16	*19	2
	MW06001	90	95	*32	*35	2
	MW06301	95	80	*66	*35	2
	MW06401	100	80	*34	*37	2
	MW06501	80	85	*29	*31	2
	MW07301	80	65	*18	*20	2
	MW07401	80	85	60	65	0
	MW07501	85	90	*23	*27	2

TABLE 3 - 3, CONTINUED

**SURROGATE % RECOVERIES
PESTICIDE/PCB WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	TCX1	TCX2	DCB1	DCB2	TOTAL OUT
90115	SW0021EB	62	*58	106	96	1
	SW05001	*48	*51	80	86	2
	SW05401	*42	*48	88	100	2
	SW05401RP	*46	*52	101	98	2
90120	SW00023EB	63	66	80	90	0
	SW03801	68	78	92	97	0
90109	SW00020EB	*56	62	100	108	1
	SW03401	*51	*52	98	96	2
	SW05101	*55	*55	97	85	2
	SW05601	66	61	81	76	0
90118	SW00022EB	*54	*55	89	88	2
	SW05701	*41	*45	88	88	2
90123	SW00024EB	*42	*42	100	94	2
	SW04501	*45	*45	88	77	2
	SW04601	*47	*44	83	78	2
	SW04701	*45	*45	92	86	2
	SW05501	*40	*38	76	70	2
90129	SW00025EB	*49	*56	96	100	2
	SW03701	*52	*42	87	94	2
90133	SW00028EB	*58	60	102	109	1
	SW04301	*49	*41	96	102	2
	SW04301RP	*45	*37	88	92	2
	SW04301MD	61	68	96	102	0
	SW04301MS	*36	*49	88	94	2
90136	SW00030EB	60	*54	109	112	1
	SW04101	*44	*42	99	101	2
	SW04201	*43	*36	100	103	2
90138	SW00033EB	74	*54	84	92	1
	SW04001	65	*44	96	94	1
	SW05801	62	*50	82	80	1
90141	SW00035EB	86	72	91	95	0
	SW06101	*55	*44	80	82	2
	SW06201	64	*50	82	86	1
90147	SW00037EB	66	63	74	76	0
	SW05901	*52	*51	84	91	2
	SW06001	*54	*49	76	89	2

(1) - FIELD QA/QC FOR SOIL SAMPLES

TCX = TETRACHLORO-M-XYLENE QC LIMITS 60% - 150%
DCB = DECACHLOROBIPHENYL QC LIMITS 60% - 150%

D - INDICATES SURROGATE DILUTED OUT
* - INDICATES VALUE OUTSIDE QC LIMITS

TCX1 - COLUMN 1 DCB 1 - COLUMN 1
TCX2 - COLUMN 2 DCB 2 - COLUMN 2

# SAMPLES	% REC IN	% REC OUT	% TOTAL IN
134	341	195	63.6%

TABLE 3 - 4

**SURROGATE % RECOVERIES
GC/MS VOLATILE SOIL & SEDIMENT SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
90026	SB05001	103	100	94	0
	SB05001RP	98	101	99	0
	SB05001MD	99	97	101	0
	SB05001MS	99	95	100	0
02EB	SB04201	101	74	89	0
	SB04202	99	78	90	0
	SB04601	110	70	89	0
	SB04602	103	78	87	0
	SB05002	102	80	93	0
	SB05601	101	75	89	0
	SB06401	114	67	93	0
	SB06401MS	114	68	95	0
	SB06401MSD	106	70	94	0
	SB07401	120	67	88	0
	SB08301	98	80	83	0
	SB08302	101	80	83	0
	03801	SB03601	111	66	94
SB03601MS		106	69	91	0
SB03601MSD		100	73	92	0
SB03602		101	79	89	0
SB03801		106	73	92	0
SB03802		102	80	93	0
SB04001		100	77	90	0
SB04002		101	80	89	0
SB05602		105	75	93	0
SB06402		102	77	88	0
SB07402		100	79	90	0
SB03601RP		102	72	88	0
90065		SB06403	110	97	106
	SB06801	110	97	106	0
	SB06801RP	110	95	105	0
	SB06801MD	112	94	107	0
	SB06801MS	109	95	107	0
90067	SB057001	103	97	90	0
	SB065001	103	91	92	0

TABLE 3 - 4, CONTINUED

SURROGATE % RECOVERIES
GC/MS VOLATILE SOIL & SEDIMENT SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
03501	SD03501	100	78	81	0
	SD03601	99	82	82	0
	SD03601MS	96	85	84	0
	SD03601MSD	94	87	84	0
	SD03601RP	99	86	80	0
	SD04801	102	75	79	0
	SD05201	97	88	84	0
	SD05301	97	84	84	0
90115	SD04901	99	91	105	0
	SD05001	96	94	103	0
	SD05401	99	90	104	0
	SD05401RP	101	88	105	0
90120	SD03801	99	94	102	0
90109	SD03401	98	95	103	0
	SD05101	98	91	105	0
	SD05601	101	89	106	0
	SD05601DL	99	90	105	0
90118	SD05701	99	93	103	0
90123	SD04401	117	87	105	0
	SD04501	104	97	107	0
	SD04601	106	98	107	0
	SD04701	106	97	107	0
	SD05501	104	97	108	0
90129	SD03701	105	102	108	0
	SD03901	120	85	107	0
90133	SD04301	110	93	107	0
	SD04301RP	111	93	108	0
	SD04301MD	113	91	106	0
	SD04301MS	115	92	109	0
90136	SD04101	108	96	107	0
	SD04201	104	99	111	0
90138	SD04001	110	100	109	0
	SD05801	103	101	111	0
90141	SD06101	96	95	100	0
	SD06201	95	92	101	0
90147	SD05901	98	94	100	0
	SD06001	95	95	99	0

SMC1 = TOLUENE-D8

SMC2 = BROMOFLUOROBENZENE

SMC3 = 1,2-DICHLOROETHANE-D4

QC LIMITS 84% - 138%

QC LIMITS 59% - 113%

QC LIMITS 70% - 121%

# SAMPLES	% REC IN	%REC OUT	% TOTAL IN
72	216	0	100%

TABLE 3 - 5
SURROGATE % RECOVERIES
SEMIVOLATILE SOIL & SEDIMENT SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	S1	S2	S3	S4	S5	S6	S7	S8	TOTAL OUT	
90026	SB05001	92	90	96	85	85	99	83	84	0	
	SB05001RP	95	89	96	91	106	101	93	84	0	
	SB05001MD	94	90	96	92	100	100	91	84	0	
	SB05001MS	86	85	94	89	97	103	87	72	0	
02EB	SB04201	40	43	61	46	42	72	46	41	0	
	SB04202	45	47	83	50	46	83	50	46	0	
	SB04601	45	52	75	47	44	87	47	45	0	
	SB04602	47	46	84	50	47	87	50	49	0	
	SB05002	43	45	85	48	45	77	48	43	0	
	SB05801	47	53	75	51	51	91	51	50	0	
	SB06401	44	51	61	49	49	76	52	49	0	
	SB06401MS	47	58	72	58	52	87	56	47	0	
	SB06401MSD	46	56	77	56	49	90	52	49	0	
	SB07401	45	52	72	49	46	84	49	45	0	
	SB08301	52	82	90	58	54	100	58	55	0	
	SB08302	54	54	100	62	58	111	58	54	0	
	03801	SB03601	52	57	72	63	56	70	58	52	0
		SB03601MS	62	67	83	70	63	84	67	62	0
SB03601MSD		52	57	87	60	53	70	56	50	0	
SB03602		53	58	67	62	56	69	59	53	0	
SB03801		43	45	37	46	42	57	46	41	0	
SB03802		53	58	72	62	58	72	59	53	0	
SB04001		56	67	73	61	53	76	61	56	0	
SB04002		56	61	70	61	51	77	58	52	0	
SB05602		46	51	70	57	50	79	54	51	0	
SB06402		52	57	76	61	58	78	58	52	0	
SB07402		52	56	86	51	48	70	54	52	0	
SB03601RP		55	61	61	65	57	87	61	52	0	
90065		SB06403	88	81	85	91	95	70	85	78	0
		SB06801	93	87	93	92	98	80	88	83	0
	SB06801RP	10	90	98	104	107	82	97	88	0	
	SB06801MD	98	87	93	99	102	77	93	85	0	
	SB06801MS	96	85	88	97	100	75	92	84	0	
90067	SB057001	92	84	92	89	89	74	87	82	0	
	SB065001	84	76	85	84	91	74	83	78	0	

TABLE 3 - 5, CONTINUED

**SURROGATE % RECOVERIES
SEMIVOLATILE SOIL & SEDIMENT SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	S1	S2	S3	S4	S5	S6	S7	S8	TOTAL OUT
03501	SD03501	50	62	65	52	50	77	50	50	0
	SD03601	49	54	72	54	51	78	51	49	0
	SD03601MS	37	42	67	45	39	66	39	38	0
	SD03601MSD	58	72	81	66	57	87	60	54	0
	SD03601RP	40	58	62	47	41	71	41	42	0
	SD04801	42	47	72	51	43	71	45	42	0
	SD05201	36	37	73	39	36	65	36	36	0
SD05301	36	38	63	42	39	58	36	35	0	
90115	SD04901	99	97	90	97	107	106	94	95	0
	SD05001	99	91	89	97	106	86	83	90	0
	SD05401	101	95	90	106	115	103	100	92	0
	SD05401RP	94	86	82	96	108	81	91	87	0
90120	SD03801	79	75	75	76	83	83	71	75	0
90109	SD03401	99	94	86	99	106	101	95	95	0
	SD05101	84	81	89	88	91	103	82	82	0
	SD05601	93	87	82	93	103	98	90	90	0
90118	SD05701	80	75	71	82	95	77	76	73	0
90123	SD04401	88	80	76	91	111	87	91	79	0
	SD04501	84	79	77	86	94	84	83	87	0
	SD04601	65	60	58	66	73	59	63	62	0
	SD04701	81	76	72	83	90	84	80	78	0
	SD05501	82	73	75	83	97	78	77	75	0
90129	SD03701	90	91	95	85	91	100	80	82	0
	SD03901	115	108	100	113	*129	121	104	102	1
90133	SD04301	104	98	98	103	*123	112	95	94	1
	SD04301RP	105	99	98	105	*124	107	96	94	1
	SD04301MD	37	36	37	39	41	37	34	33	0
	SD04301MS	110	101	99	113	*129	110	97	97	1
90136	SD04101	87	80	75	85	101	88	84	83	0
	SD04201	87	81	76	85	101	89	83	81	0
90138	SD04001	98	87	79	95	*122	105	92	89	1
	SD05801	89	84	80	83	75	95	63	80	0
90141	SD06101	95	85	83	92	119	95	89	87	0
	SD06201	90	81	80	87	113	86	84	81	0
90147	SD05901	84	80	77	81	103	90	78	75	0
	SD06001	92	82	83	88	113	96	85	81	0

S1 = NITROBENZENE-D5	QC LIMITS 23% - 120%	
S2 = 2-FLUOROBIPHENYL	QC LIMITS 30% - 115%	
S3 = TERPHENYL-D14	QC LIMITS 18% - 137%	
S4 = PHENOL-D5	QC LIMITS 24% - 113%	
S5 = 2-FLUOROPHENOL	QC LIMITS 25% - 121%	
S6 = 2,4,6-TRIBROMOPHENOL	QC LIMITS 19% - 122%	
S7 = 2-CHLOROPHENOL-D4	QC LIMITS 20% - 130%	(ADVISORY)
S8 = 1,2-DICHLOROBENZENE-D4	QC LIMITS 20% - 1300%	(ADVISORY)

D - INDICATES SURROGATES DILUTED OUT
* - INDICATES VALUE OUTSIDE QC LIMITS

# SAMPLES	% REC IN	% REC OUT	% TOTAL IN
71	563	5	99.1%

TABLE 3 - 6

**SURROGATE % RECOVERIES
PESTICIDE/PCB SOIL & SEDIMENT SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	TCX1	TCX2	DCB1	DCB2	TOTAL OUT
90026	SB05001	92	87	103	97	0
	SB05001RP	00	00	00	00	0
	SB05001MD	86	83	114	109	0
	SB05001MS	85	78	108	10	0
02EB	SB04201	86	86	100	86	0
	SB04202	62	75	87	87	0
	SB04601	103	82	103	96	0
	SB04602	69	76	88	88	0
	SB05002	66	72	84	84	0
	SB05601	75	89	96	82	0
	SB06401	85	98	98	92	0
	SB06401MS	85	92	85	78	0
	SB06401MSD	85	92	85	78	0
	SB07401	73	86	73	79	0
	SB08301	65	72	63	70	0
	SB08302	87	93	104	93	0
	03801	SB03601	93	79	86	93
SB03601DL		112	00	79	00	0
SB03601MS		100	79	86	86	0
SB03601MSD		100	79	79	86	0
SB03601RP		93	86	86	86	0
SB03601RPDL		00	00	119	00	0
SB03602		74	80	92	86	0
SB03801		86	71	*3143	*3214	2
SB03802		86	92	92	99	0
SB04001		86	86	86	79	0
SB04002		72	84	84	84	0
SB05602		95	89	95	95	0
SB06402		67	73	73	67	0
SB07402		84	90	74	78	0
90065	SB06403	105	92	119	99	0
	SB06801	96	83	118	101	0
	SB06801RP	107	92	126	107	0
	SB06801MD	107	93	115	99	0
	SB06801MS	104	92	107	92	0
90067	SB057001	83	86	107	104	0
	SB065001	89	92	110	107	0

TABLE 3 - 6, CONTINUED
SURROGATE % RECOVERIES
PESTICIDE/PCB SOIL & SEDIMENT SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	TCX1	TCX2	DCB1	DCB2	TOTAL OUT
03501	SD03501	85	113	101	99	0
	SD03601	78	100	99	91	0
	SD03601MS	83	90	92	90	0
	SD03601MSD	79	88	95	94	0
	SD03601RP	86	93	97	94	0
	SD04801	78	105	90	101	0
	SD05201	64	86	79	80	0
	SD05301	78	96	101	106	0
90109	SD03401	77	104	98	108	0
	SD05101	0D	0D	0D	0D	0
	SD05601	75	86	96	103	0
90118	SD05701	70	82	96	108	0
90123	SD04401	94	65	107	107	0
	SD04501	94	61	117	106	0
	SD04601	101	98	125	110	0
	SD04701	101	112	120	106	0
	SD05501	102	111	118	121	0
90129	SD03701	77	88	104	102	0
	SD03901	81	70	88	85	0
90133	SD04301	91	99	93	91	0
	SD04301RP	99	97	101	92	0
	SD04301MD	87	89	94	112	0
	SD04301MS	88	94	90	84	0
90136	SD04101	80	72	110	102	0
	SD04201	88	78	110	101	0
90138	SD04001	94	62	104	86	0
	SD05801	86	66	85	89	0
90141	SD06101	0D	0D	0D	0D	0
	SD06201	86	70	107	106	0
90147	SD05901	89	75	100	106	0
	SD06001	78	96	86	94	0

TCX1- COLUMN1
 TCX2- COLUMN2
 DCB1- COLUMN1
 DCB2- COLUMN2

TCX - TETRACHLORO-M-XYLENE
 DCB - DECACHLOROBIPHENYL

QC LIMITS 60% - 150%
 QC LIMITS 60% - 150%

D - INDICATES SURROGATE DILUTED OUT
 * - INDICATES VALUE OUTSIDE OF QC LIMITS

# SAMPLES	% REC IN	% REC OUT	% TOTAL IN
68	270	2	99.3%

samples may be overestimated. However, based on the assessment of other QC criteria did not result in sample result qualification.

Six (6) of the ten (10) spike compounds in the semivolatile MS/MSD of sample MW00601 exhibited recoveries below the QC limits in one or both the MS and MSD (Table 2-37, page 2-37). This indicates the potential for low bias in the associated sample results. However, based on the assessment of other quality control parameters, the sample results were not qualified.

One (1) analyte, lead, exhibited a %R below the minimum acceptable criteria for accuracy in the total metals analysis of the MS of sample SB00009EB associated with the QC blanks in SDG 90065 (Table 2-29, page 2-42). The non-detect results for lead in the field QC blank samples SB00009EB and SB00002 were appropriately qualified as estimated, UJ.

Five (5) analytes; lead, selenium, thallium, arsenic and antimony, exhibited %Rs below the minimum acceptable criteria for accuracy in total metals analysis of the MS of sample MW04501 associated with SDG-90073 (Table 2-29, page 2-45). The analytes arsenic and antimony were recovered below 30%. Therefore, non-detect results for arsenic and antimony in samples in SDG 90073 were rejected, R, and positive results were qualified as estimated, J, due to the clear low bias present. Lead, selenium and thallium exhibited %Rs between 30% and 70%. This indicates that the quantified values for the positive and non-detect results for these analytes in the associated samples may be underestimated. The positive and non-detect results for the analytes selenium, lead, and thallium in associated samples were qualified as estimated, J or UJ.

The target analyte aluminum exhibited a %R above the maximum criteria for accuracy in the total metals analysis of the MS of sample MW03601 associated with SDG 90076 (Table 2-29, page 2-46), which indicates that reported positive results for this analyte may be overestimated. The quantitated aluminum results in associated samples were qualified as estimated, J.

The target analytes antimony, arsenic, and lead exhibited %Rs below the minimum QC criteria in the total metals analysis of the MS of sample MW06101 associated with SDG 90078 (Table 2-29, page 2-47). This indicates that reported non-detect and positive values for the analytes may be underestimated. The positive and non-detect results for antimony, arsenic, and lead in associated samples were qualified as estimated, J or UJ.

The target analyte silver exhibited %Recovery results below the QC criteria for accuracy in the total metals analysis of the MS of samples MW05601 associated with SDG 90082, and MW01101 associated with SDG 90083 (Table 2-29, pages 2-48 and 2-49, respectively). This indicates that reported non-detect and positive values for the analyte may be underestimated. The positive and non-detect values for silver in associated samples were qualified as estimated, J or UJ. The target analyte mercury was recovered above the QC criteria for accuracy in the MS of sample MW01101 associated with SDG 90083 (Table 2-29, page 2-49). This indicates that positive results reported for mercury in associated samples may be overestimated. The quantitated values for mercury were qualified as estimated, J.

Three (3) target analytes, antimony, arsenic, and thallium, exhibited %Recovery results less than the minimum criteria for accuracy in the dissolved metals analysis of the MS of sample MW04501 associated with SDG 90075 (Table 2-30, page 2-52). This indicates that the reported non-detect and positive values for the analytes may be underestimated. The positive and non-detect values for antimony, arsenic and thallium in associated samples were qualified as estimated, J or UJ.

The target analyte mercury was recovered above the maximum QC limit in the dissolved metals analysis of sample MW07601 associated with SDG 90074 (Table 2-30, page 2-51). This indicates that any reported positive values for the analyte, in associated samples, may be underestimated. Any positive values for mercury in associated samples were qualified as estimated, J.

The target analyte silver was recovered below the minimum acceptable criteria for accuracy in the dissolved metals analysis of the MS of sample MW05601 associated with SDG 90081 (Table 2-30, page 2-54), MS of sample MW06801 associated with SDG 90084 (Table 2-30, page 2-55), and in the MS of sample MW00601 associated with SDG 90087 (Table 2-30, page 2-56). This indicates a potential for low bias for the analyte silver in all associated samples. The positive and non-detect values reported for silver were qualified as estimated, J or UJ.

Surface Water Matrix

The semivolatile analysis of the MS/MSD pair of surface water sample SW04301RP associated with SDG 90133 exhibited one (1) compound, 4-nitrophenol, with non-compliant recovery (Table 2-32, page 2-60). The compound was recovered below the QC criteria for accuracy. This indicates that the reported non-detect and positive values for the compound may be underestimated. However, based on the assessment of other QC criteria, sample results were not qualified.

The target analyte thallium was recovered below the minimum acceptable criteria for accuracy in the total metals analysis of sample SW03601 associated with SDG 90100 (Table 2-34, page 2-62). The target analyte Selenium was recovered below the minimum acceptable criteria for accuracy in the total metals analysis of sample SW04301 associated with SDG 90133 (Table 2-34, page 2-67). This indicates that the reported non-detect and positive values for the analytes in associated samples may be underestimated. The positive and non-detect values for thallium and selenium in associated samples were qualified as estimated, J or UJ.

The target analyte thallium was recovered below the minimum acceptable criteria for accuracy in the dissolved metals analysis of samples SW04601 associated with SDG 90124 (Table 2-35, page 2-70), SW05101 associated with SDG 90110 (Table 2-35, page 2-71), and SW03601 associated with SDG 90105 (Table 2-35, page 2-72). The target analyte Selenium was recovered below the minimum acceptable criteria for accuracy in the total metals analysis of sample SW04601 associated with SDG 90124 (Table 2-35, page 2-70). The non-compliance noted indicates that the reported non-detect and positive values for the analytes in associated samples may be underestimated. The positive and non-detect values for thallium and selenium in associated samples were qualified

as estimated, J or UJ. The target analyte lead was recovered at 0% recovery in the MS of sample SW04601 associated with SDG 90124 (Table 2-35, page 2-70). This indicates that the laboratory may not be able to detect lead in field samples. Therefore, all non-detect results for the analyte lead were rejected (R) in the associated field samples and all positive results for the analyte lead in the associated samples were qualified as estimated (J).

All surrogate recoveries except one (1) surrogate recovery in field samples for GC/MS volatile organics were "in-control" (Table 3-1). The surrogate compound toluene-d₈ was recovered low in sample MW07201, which resulted in estimation of positive and non detect results (J/UJ). In addition, two (2) laboratory QC samples, MW0601MS and MW0601MSD, exhibited low recovery for the surrogate compound bromofluorobenzene. The non-compliance was slight and did not result in field sample data qualification. Ninety-nine and one-half percent (99.5%) of the volatile surrogate recoveries were acceptable.

The semivolatile surrogate compound Terphenyl-d₁₄ was recovered below the acceptable criteria for accuracy in fourteen (14) samples (thirteen (13) field samples and one (1) laboratory QC spike). The semivolatile surrogate compound 2-fluorobiphenyl was recovered below the acceptable criteria for accuracy in one (1) field sample. However, the SOW and the National Functional Guidelines allow up to one (1) surrogate per fraction to be outside the QA/QC limit without sample qualifications, as long as the surrogate recovery is greater than 10%. Ninety-eight and seven-tenths percent (98.7%) of the semivolatile surrogate recoveries were acceptable.

The pesticide/PCB surrogate recoveries were not in-control in the majority of field samples analyzed (Table 3-3). The surrogate compound tetrachloro-m-xylene (TCX) was recovered below the acceptable criteria in thirty-seven (37) samples. The surrogate compound decachlorobiphenyl was recovered below the acceptable criteria in sixty-eight (68) samples. This indicates an overall potential for low bias in field sample results. However, based on the assessment of other QC criteria, only field samples exhibiting non-compliant recovery of both surrogate compounds were qualified as estimated, J or UJ. Therefore, the positive and non-detect results for all target compounds in samples MW00701, and MW5801 were qualified as estimated (J/UJ).

For the volatiles, semivolatiles, pesticide/PCB, and TPH analytical fractions, none of the compounds or group of compounds were rejected. Therefore, based on an overall assessment of MS/MSD and surrogate sample accuracy evaluation criteria, the water matrix analytical data was acceptable for each SDG for these fractions, with the noted potential for bias. The metals target analytes lead and arsenic were rejected in one (1) field sample, antimony and arsenic were rejected in one (1) field QC blank, and antimony was rejected in six (6) field samples. However, this constituted a rejection of less than one percent (1%) of the sample data points for either matrix.

3-2 Soil/Sediment Matrix

The MS/MSD sample pairs for sediment matrix analyzed for GC/MS Volatiles and pesticides/PCBs exhibited "in-control" recovery results (Tables 2-42 & 2-44).

Soil Matrix

The volatile analysis of the MS/MSD pair of sample SB06801 exhibited the non-compliant recovery of two (2) compounds in the MSD (Table 2-38). Toluene and chlorobenzene were recovered below the QC criteria for accuracy. This indicates the potential for low bias. However, based on the assessment of additional QC criteria the analytical results were not qualified.

The semivolatile analysis of the MS/MSD pair of sample SB05001 exhibited one (1) compound with non-compliant recoveries (Table 2-39, page 2-81). The compound 2,4-dinitrotoluene was recovered above the advisory limits in both the MS and the MSD. The semivolatile analysis of the MS/MSD pair of sample SB06801 exhibited two (2) compounds with non-compliant recoveries (Table 2-39, page 2-84). The compounds 2,4-dinitrophenol and phenol were recovered above the advisory limits for accuracy in the MS or MSD, or both. This is indicative of potential high bias in positive sample results for these compounds. However, positive results for the compounds were not noted in the associated samples, so results were not qualified.

The pesticide/PCB analysis of the MS/MSD of sample SB05001 exhibited non-compliant recoveries in the MS and the MSD for the compound dieldrin (Table 2-40, page 2-85). The compound was reported in the original sample and field duplicate sample analysis at a concentration which required dilution at a factor of 1:20. The RPDs between the field duplicate pair were acceptable. The spike recovery is affected by the high concentration of the target compound present in the field sample prior to spiking. Therefore, the sample results were not qualified. The analysis of the MS/MSD pair of sample SB03601 exhibited two (2) compounds with non-compliant recoveries (Table 2-40, page 2-88). The compound endrin was recovered below the QC criteria in the MSD. This indicates the potential for low bias. However, based on the assessment of other QC criteria, the results in associated samples were not qualified. The compound aldrin was not recovered in the MS or the MSD of this QC spike pair. This indicates that the laboratory may not be able to detect aldrin in the sample and its field duplicate. Therefore, the non-detect aldrin results in samples SB03601 and SB03601RP were rejected (R) and all positive results were qualified as estimated (J).

The target analyte lead was recovered below the acceptable criteria for accuracy in the metals analysis of the MS of samples SB05001 and SB06801 (Table 2-41, pages 2-88, 2-90). The target analytes antimony and selenium were recovered below the acceptable criteria in the MS of sample SB03601. The analyte arsenic was recovered below the acceptable criteria in the MS of sample SB06401. These recoveries indicate potential low bias for the analytes mentioned. Therefore, the positive and non-detect values reported for selenium and antimony in samples in SDG 03801, arsenic in SDG 02EB, and lead in SDGs 90026, 02EB and 90065 were qualified as estimated, J or UJ. The target analyte lead was recovered above the acceptable criteria for accuracy in the metals analysis of the MS of sample SB06401 (Table 2-41, page 2-89). This recovery indicates potential high bias for lead in associated samples. Therefore, any positive values reported for lead in SDG 02EB were qualified as estimated, J. The target compound cyanide was not recovered in the MS of sample SB06401. This indicates that the laboratory may not be able to detect

cyanide in the associated samples. Therefore, all non-detect results reported for cyanide in the samples in SDG 02EB were rejected (R) and all positive results for cyanide were qualified as estimated (J).

Sediment Matrix

The semivolatile analysis of the MS/MSD pair of sample SD03601 exhibited two (2) compounds with non-compliant recoveries (Table 2-43, page 2-92). N-nitroso-di-n-propylamine and 1,2,4-trichlorobenzene exhibited recoveries below the advisory limits in the MS. This indicates a potential for low bias. However, based on the assessment of other QC criteria, sample results were not qualified. The MS/MSD pair of sample SD04301RP exhibited non-compliant recoveries for five (5) compounds in the MS and two (2) compounds in the MSD (Table 2-43, page 2-93). The recoveries in the MS were above the advisory limits and those in the MSD were below the advisory limits. However, based on assessment of other QC criteria, the sample results did not require qualification.

The metals analysis of the MS of sample SD04501 associated with SDG 90123 exhibited non-compliant recoveries for the analytes lead and selenium (Table 2-45, page 2-101). The analytes were recovered below the acceptable criteria for accuracy which indicates a potential for low bias in associated sample results. Further, the recovery for lead was less than 30%. The non-detect results reported for lead were rejected, R, and positive results were qualified as estimated, J, in associated samples. The positive and non-detect results reported for selenium were qualified as estimated, J or UJ, in associated samples.

The MS of sample SD03601 exhibited a non-compliant recovery for the analyte zinc, and the MS of sample SD04301 exhibited a non-compliant recovery for the analyte lead (Table 2-45, page 2-95). Both analytes were recovered below the acceptable criteria for accuracy. This is indicative of a potential for low bias in associated sample results. The positive and non-detect results for lead and zinc in associated samples (SDGs 90100, 90109, 90115, 90118, 90129, 90133, 90136, and 90138) were qualified as estimated, J or UJ.

The total petroleum hydrocarbon analysis of the MS and MSD of SD04301 associated with SDG 90133 exhibited a non-compliant recovery in both (Table 2-46, page 2-106). This indicates the potential for low bias in reported sample results. The positive and non-detect results in associated samples were qualified as estimated, J or UJ.

All surrogate recoveries result in field and QC samples for GC/MS volatile organics were "in-control" (Table 3-4).

The semivolatile surrogate compound 2-fluorophenol was recovered above the acceptable criteria for accuracy in five (5) samples (three (3) field samples and two (2) QC samples). However, the SOW and the National Functional Guidelines allow up to one (1) surrogate per fraction to be outside the QA/QC limit without sample qualifications, as long as the surrogate recovery is greater than 10%. Ninety-nine and one-tenth percent (99.1%) of the semivolatile surrogate recoveries were acceptable. Per the method and the

National Functional Guidelines, up to one (1) surrogate recovery per fraction may not meet QA/QC criteria, as long as the recovery is greater than 10%.

The pesticide/PCB surrogate compound DCB was recovered high in one (1) field sample on both columns (Table 3-6). This non-compliant recovery appears to be due to interferences. However, based on the assessment of other QC criteria, the sample results were not qualified. Ninety-nine point three-tenths percent (99.3%) of the pesticide/PCB surrogate recoveries were acceptable.

For the volatiles, semivolatiles, and TPH analytical fractions, none of the compounds were rejected. Therefore, based on an overall assessment of MS/MSD and surrogate sample accuracy evaluation criteria, the soil/sediment matrix analytical data was acceptable for each SDG for these fractions, with the noted potential for bias. The pesticide target compound aldrin was rejected in one (1) field sample and in one (1) field duplicate sample. However, this constituted a rejection of less than one percent (1%) of the sample data points for either fraction. The metals target analyte cyanide was rejected in ten (10) soil samples. The metals target analyte selenium was rejected in one (1) sediment sample due to a spike recovery below 30% in a sample submitted by the laboratory for QC purposes only (no table is included for this sample). The analyte lead was rejected in one (1) field sample.

4.0 REPRESENTATIVENESS

Representativeness of the environmental sample analytical data was assessed using trip blanks, field blanks, equipment rinseate blanks, and laboratory method blanks. The environmental samples and associated blanks were analyzed for the following target analyte groups:

- GC/MS volatile organic compounds (GC/MS VOCs);
- semivolatile organic compounds (SVOCs);
- pesticides, PCBs;
- total metals;
- total petroleum hydrocarbon (TPH), and
- radiological nuclides (method blanks only).

The trip blank samples were analyzed for only GC/MS volatile organic target analytes. Field blanks, equipment rinseate blanks, and laboratory method blanks were analyzed for target analytes in each listed category. The assessment of representativeness is summarized in tabular form for each type of blank, trip blank results are summarized in Table 4-1, field blank results are summarized in Tables 4-2 through 4-6, equipment rinseate blank results are summarized in Tables 4-7 through 4-11, and method blank results are summarized in Tables 4-12 through 4-17.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation by Heartland. The corrective action consisted of amending the laboratory reported results for organic and inorganic target analytes by the criteria. The following describes the Validation Qualifier code in the blank summary tables.

Organic Target Analytes

- CRQL Validation Qualifier. If a sample result for the blank contaminant was less than the CRQL and less than 10 times the blank value, the sample result was rejected and amended as estimated non-detected at the CRQL for the target compound.
- U Validation Qualifier. If a sample result for the blank contaminant was greater than the sample CRQL and less than 10 times the blank value, the sample result for the blank contaminant was amended as non detect at the concentration reported in the sample results.
- No Action (NA). If a sample result for the blank contaminant was greater than the CRQL and 10 times the blank value, the result was not amended.

Inorganic Target Analytes

- U Validation Qualifier. If a sample result for the blank contaminant was less than the IDL and less than 5 times the blank value, the sample result was amended as non-detected.

TABLE 4 - 1

GC/MS VOLATILES DETECTED IN TRIP BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	TB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
02EB	SB00002TB	SB05002, SB04201, SB04202, SB04601	NO CONTAMINATION FOUND			
	SB00003TB	SB06401, SB07401, SB05601, SB04602, SB08302, SB08301	NO CONTAMINATION FOUND			
03801	SB00004TB	SB05602, SB03801, SB03802	NO CONTAMINATION FOUND			
	SB00005TB	SB07402	NO CONTAMINATION FOUND			
	SB00006TB	SB06402, SB04001	NO CONTAMINATION FOUND			
	SB00007TB	SB04002, SB03602, SB03601, SB03601RP	NO CONTAMINATION FOUND			
90026	SB00001TB	SB05001, SB05001RP, SB00001FB	NO CONTAMINATION FOUND			
90065	SB0009TB	SB06801, SB06801RP	ACETONE	24	ug/L	CRQL
		SB06403, SB06801MS, SB06801MSD	ACETONE	24	ug/L	U
90067	SB00010TB	SB05701, SB06501	NO CONTAMINATION FOUND			
90072	MW0011TB	MW00003FB, SB6601, SB7601	NO CONTAMINATION FOUND			
90073	MW00012TB	MW4101, MW4201, MW4501, MW4501RP, MW5201, MW5301, MW5801, MW5901	NO CONTAMINATION FOUND			
90076	MW00013TB	MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP	NO CONTAMINATION FOUND			
90078	MW00014TB	MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701	METHYLENE CHLORIDE ACETONE	2 14	ug/L ug/L	
03501	SW00019TB	SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301, SW00004FB, SW03501, SW03601 SW03601RP	NO CONTAMINATION FOUND			
017EB	MW00017TB	MW00801, MW00017EB, MW01101, MW04301, MW04401, MW06801, MW06901, MW06901RP, MW07801, MW07901, MW07901RP	NO CONTAMINATION FOUND			
	MW00018TB	MW00018EB, MW00601, MW03701, MW03801	NO CONTAMINATION FOUND			
90082	MW00016TB	MW00016EB, MW05601, MW05601RP, MW06301, MW06401, MW07301, MW07401, MW05701, MW06001, MW06501, MW07501, MW05501	NO CONTAMINATION FOUND			
90120	SW00023TB	SW03801, SD03801	ACETONE	20	ug/L	U
90115	SW00021TB	SD05001, SD05401, SD05401RP	ACETONE	9	ug/L	U
90109	SW00020TB	SW00020EB, SW03401, SW05101, SW05601, SD03401, SD05101, SD05601	NO CONTAMINATION FOUND			
90118	SW00022TB	SW00022EB, SW05701, SD05701	NO CONTAMINATION FOUND			

TABLE 4 - 1, CONTINUED

GC/MS VOLATILES DETECTED IN TRIP BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	TB CONC.	UNITS	VALIDATION QUALIFIER
90129	SW00026TB	SW03701	METHYLENE CHLORIDE	16	ug/L	CRQL
		SW03701	ACETONE	23	ug/L	U
90133	SW00027TB	SW00028EB, SW04301, SW04301RP, SD04301, SD04301RP	NO CONTAMINATION FOUND			
90123	SW00024TB	SW04601	METHYLENE CHLORIDE	1	ug/L	CRQL
90144	CW00032TB	CW01401, CW01402, CW01501, CW01502, CW01602, CW00036EB	NO CONTAMINATION FOUND			
90143	CW00031TB	CW01601, CW01701, CW01702, CW01702RP, CW00034EB	NO CONTAMINATION FOUND			
90136	SW00028TB	SW00030EB, SW04101, SW04201, SD04101, SD04201	NO CONTAMINATION FOUND			
90138	SW00029TB	SW00033EB, SW04001, SW05801, SD04001, SD05801	NO CONTAMINATION FOUND			
90141	SW00030TB	SW00035EB, SD06201	METHYLENE CHLORIDE	1	ug/L	CRQL
90147	SW00033TB	SW06001, SW05901, SD06001, SD05901, SW00037EB	NO CONTAMINATION FOUND			
90160	JXCW00034TB	JXCW04402, JXCW04402MS, JXCW04402MSD, JXCW00046EB	NO CONTAMINATION FOUND			
90176	JXCW00035TB	JXCW00063EB, JXCW07801DUP	ACETONE	9	ug/L	U
		JXCW08101				CRQL
	JXCW07701					
	JXCW00036TB	JXCW00064EB, JXCW05101, JXCW05102	NO CONTAMINATION FOUND			
90195	JXCW00037TB	JXCW00071EB, JXCW09001, JXCW09001MS, JXCW09001MSD, JXCW09001DL	ACETONE	15	ug/L	

TABLE 4 - 2GC/MS VOLATILES DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
90026	SB00001FB	SB05001, SB05001RP, SB00001FB	METHYLENE CHLORIDE	1	ug/L	
90065	SB00002FB	SB06801, SB06801RP, SB06403	METHYLENE CHLORIDE ACETONE	1 12	ug/L ug/L	
90072	MW00003FB	MW6601, MW7601	NO CONTAMINATION FOUND			
03501	SW00004FB	SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301, SW03501, SW03601, SW03601RP	ACETONE	10	ug/L	

TABLE 4 - 3SEMIVOLATILES DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
90026	SB00001FB	SB05001, SB05001RP	NO CONTAMINATION FOUND			
90065	SB00002FB	SB06801, SB06801RP, SB06403	NO CONTAMINATION FOUND			
90072	MW00003FB	MW6601, MW7601	NO CONTAMINATION FOUND			
03501	SW00004FB	SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301, SW03501, SW03601, SW03601RP	NO CONTAMINATION FOUND			

TABLE 4 - 4**PESTICIDES/PCBS DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
90026	SB00001FB	SB05001, SB05001RP, SB00001FB	NO CONTAMINATION FOUND			
90065	SB00002FB	SB06801, SB06801RP, SB06403	NO CONTAMINATION FOUND			
90072	MW00003FB	MW6601, MW7601	NO CONTAMINATION FOUND			
03501	SW00004FB	SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301, SW03501, SW03601, SW03601RP	NO CONTAMINATION FOUND			

TABLE 4 - 5

**TOTAL METALS AND CYANIDE DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	FB	UNITS	VALIDATION
		SAMPLES		CONC.		QUALIFIER
90026	SB00001FB	SB05001, SB05001RP, SB00001FB	COPPER	22.9	ug/L	
90065	SB00002FB	SB06801, SB06801RP, SB06403	BARIUM	1.5	ug/L	U
			CALCIUM	19.4	ug/L	U
			CHROMIUM	2.2	ug/L	U
			COPPER	14.3	ug/L	U
			IRON	7.2	ug/L	U
			SELENIUM	2.5	ug/L	U
			SILVER	1.3	ug/L	U
			SODIUM	167.0	ug/L	U
			VANADIUM	1.5	ug/L	U
		ZINC	9.6	ug/L	U	
90072	MW00003FB	MW6601, MW7601	NO CONTAMINATION FOUND			
90100	SW00004FB	SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301, SW03501, SW03601, SW03601RP	NO CONTAMINATION FOUND			

TABLE 4 - 6

DISSOLVED METALS DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
90074	MW00003FB	MW06601, MW07601	COPPER ZINC	6.4 2.9	ug/L ug/L	
90105	SW00004FB	SW03501, SW03601, SW03601RP	SODIUM	31.10	ug/L	

TABLE 4 - 7

**GC/MS VOLATILES DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/Fs FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
02EB	SB00002EB	SB05002, SB04201, SB04202, SB04601	NO CONTAMINATION FOUND			
	SB00003EB	SB06401, SB07401, SB05601, SB04602, SB08302, SB08301	NO CONTAMINATION FOUND			
03801	SB00004EB	SB05602, SB03601, SB03802	NO CONTAMINATION FOUND			
	SB00005EB	SB07402	NO CONTAMINATION FOUND			
	SB00006EB	SB06402, SB04001	NO CONTAMINATION FOUND			
	SB00007EB	SB04002, SB03602, SB03601, SB03601RP	NO CONTAMINATION FOUND			
	SB00008EB	SB04002, SB03602, SB03601, SB03601RP	NO CONTAMINATION FOUND			
90026	SB00001EB	SB00001FB	METHYLENE CHLORIDE	1	ug/L	CRQL
		SB05001, SB05001RP, SB00001FB	ACETONE	11	ug/L	
90065	SB00009EB	SB06801, SB06801RP, SB06403, SB00002FB	ACETONE	11	ug/L	
90067	SB00010EB	SB05701, SB06501	NO CONTAMINATION FOUND			
90072	MW0011EB	MW06601, MW07601, MW00003FB	NO CONTAMINATION FOUND			
90073	MW0012EB	MW4101, MW4201, MW4501, MW4501RP, MW5201, MW5301, MW5801, MW5901	NO CONTAMINATION FOUND			
90076	MW00013EB	MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP	NO CONTAMINATION FOUND			
90078	MW00014EB	MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701	METHYLENE CHLORIDE ACETONE	2 14	ug/L ug/L	
		MW08301, MW07101RP, MW07201, MW06101, MW06101MS, MW06101MSD	CHLOROMETHANE	1	ug/L	CRQL
03501	SW00019EB	SD03601, SD03601D, SD03501	ACETONE	8	ug/L	U
017EB	MW00017EB	MW00801, MW01101, MW04301, MW04401, MW06801, MW06901, MW06901RP, MW07801, MW07901, MW07901RP	NO CONTAMINATION FOUND			
	MW00018EB	MW00601, MW03801, MW03701	NO CONTAMINATION FOUND			
90082	MW00016EB	MW07301, MW07401, MW05701, MW06001	CHLOROMETHANE	3	ug/L	CRQL
90120	SW00023EB	SW03801, SD03801	NO CONTAMINATION FOUND			
90115	SW00021EB	SW05401, SW05001, SD04901, SD05001, SD05401, SD05401RP	ACETONE	9	ug/L	
90109	SW00020EB	SW03401, SW05101, SW05601, SD03401, SD05101, SD05601	NO CONTAMINATION FOUND			
90118	SW00022EB	SD05701	METHYLENE CHLORIDE	1	ug/L	NA
		SD05701	2-BUTANONE	3	ug/L	CRQL

TABLE 4 - 7, CONTINUED

GC/MS VOLATILES DETECTED IN EQUIPMENT RINSE BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
90129	SW00025EB	SW03701, SD03701, SD03901	METHYLENE CHLORIDE ACETONE	16 38	ug/L ug/L	
90133	SW00028EB	SW04301, SW04301RP, SD04301, SD04301RP	METHYLENE CHLORIDE	1	ug/L	
90123	SW00024EB	SD04401, SD04501, SD05501, SD04701, SD04601, SW004501, SW05501, SW04601, SW04701	NO CONTAMINATION FOUND			
90144	CW00036EB	CW01401, CW01402, CW01501, CW01602	NO CONTAMINATION FOUND			
90143	CW00034EB	CW01601 CW01702, CW01702TP, CW01702MS, CW01702MSD	METHYLENE CHLORIDE ACETONE	1 15	ug/L ug/L	CRQL U
90136	SW00030EB	SW04101, SW04201, SD04101 SD04201	NO CONTAMINATION FOUND			
90138	SW00033EB	SW04001, SW05801, SD04001 SD05801	NO CONTAMINATION FOUND			
90141	SW00035EB	SW06101, SW06201, SD06101 SD06201	NO CONTAMINATION FOUND			
90147	SW00037EB	SW06001, SW05901, SD06001, SD05901	NO CONTAMINATION FOUND			
90160	JXCW00046EB	JXCW04402, JXCW04402MS, JXCW04402MSD	ACETONE	15	ug/L	U
90176	JXCW00063EB	JXCW07701, JXCW07801, JXCW07701MS, JXCW07701MSD, JXCW08101	CHLOROMETHANE ACETONE	3 20		
	JXCW00064EB	JXCW05101, JXCW05102	NO CONTAMINATION FOUND			
90195	JXCW00071EB	JXCW09001, JXCW09001DL, JXCW09001MS, JXCW09001MSD	NO CONTAMINATION FOUND			

TABLE 4 - 8

**SEMIVOLATILES DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
02EB	SB00002EB	SB05002, SB04201, SB04202, SB04601	BIS(2-ETHYLHEXYL)PHTHALAT	10	ug/L	
	SB00003EB	SB06401, SB07401, SB05601, SB04602, SB08302, SB08301	BIS(2-ETHYLHEXYL)PHTHALAT	1	ug/L	
03801	SB00004EB	SB05602, SB03801, SB03802	NO CONTAMINATION FOUND			
	SB00005EB	SB07402	NO CONTAMINATION FOUND			
	SB00006EB	SB06402, SB04001	NO CONTAMINATION FOUND			
	SB00007EB	SB04002, SB03602, SB03601, SB03601RP	NO CONTAMINATION FOUND			
	SB00008EB	SB04002, SB03602, SB03601, SB03601RP	NO CONTAMINATION FOUND			
90026	SB00001EB	SB05001, SB05001RP, SB00001FB	BIS(2-ETHYLHEXYL)PHTHALAT	9	ug/L	
90065	SB0009EB	SB06801, SB06801RP, SB06403, SB00002FB	NO CONTAMINATION FOUND			
90067	SB00010EB	SB05701, SB06501	NO CONTAMINATION FOUND			
90072	MW0011EB	MW06601, MW07601, MW00003FB	NO CONTAMINATION FOUND			
90073	MW0012EB	MW4101, MW4201, MW5901 MW5201	DI-N-BUTYLPHTHALATE	1	ug/L	CRQL
90076	MW00013EB	MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP	DIETHYLPHTHALATE	3	ug/L	
90078	MW00014EB	MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701	NO CONTAMINATION FOUND			
03501	SW00019EB	SD03601, SD03601D, SD03501, SD04801, SD05201, SD05301, SW03501, SW03601, SW03601RP	NO CONTAMINATION FOUND			
017EB	MW00017EB	MW00801, MW01101, MW04301, MW04401, MW06801, MW06901, MW06901RP, MW07801, MW07901, MW07901RP	NO CONTAMINATION FOUND			
	MW00018EB	MW00601, MW03801, MW03701	NO CONTAMINATION FOUND			
90082	MW00016EB	MW05601, MW05601RP, MW06301, MW06401, MW07301, MW07401, MW05701, MW06001, MW06501, MW07501, MW05501	NO CONTAMINATION FOUND			
90120	SW00023EB	SW03801, SD03801	NO CONTAMINATION FOUND			
90115	SW00021EB	SW05401, SW05001, SD04901, SD05001, SD05401, SD05401RP	PHENOL	1	ug/L	
90109	SW00020EB	SW03401, SW05101, SW05601, SD03401, SD05101, SD05601	NO CONTAMINATION FOUND			
90118	SW00022EB	SW05701, SD05701	NO CONTAMINATION FOUND			

TABLE 4 - 8, CONTINUED

SEMIVOLATILES DETECTED IN EQUIPMENT RINSE BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
90129	SW00025EB	SW03701, SD03701, SD03901	NO CONTAMINATION FOUND			
90133	SW00028EB	SW04301, SW04301RP, SD04301, SD04301RP	NO CONTAMINATION FOUND			
90123	SW00024EB	SD04401, SD04501, SD05501, SD04701, SD04601, SW004501, SW05501, SW04601, SW04701	NO CONTAMINATION FOUND			
90136	SW00030EB	SW04101, SW04201, SD04101 SD04201 SD04201	NO CONTAMINATION FOUND			
90138	SW00033EB	SW04001	DI-N-OCTYLPHTHALATE	2	ug/L	CRQL
		SW04001, SW05801, SD04001 SD05801	PHENOL	3	ug/L	
90141	SW00035EB	SW06101, SW06201, SD06101 SD06201	NO CONTAMINATION FOUND			
90147	SW00037EB	SW06001, SW05901, SD06001, SD05901	NO CONTAMINATION FOUND			

TABLE 4 - 9

**PESTICIDES/PCBS DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
02EB	SB00002EB	SB05002, SB04201, SB04202, SB04601	NO CONTAMINATION FOUND			
	SB00003EB	SB06401, SB07401, SB05601, SB04602, SB08302, SB08301	NO CONTAMINATION FOUND			
03801	SB00004EB	SB05602, SB03801, SB03802	NO CONTAMINATION FOUND			
	SB00005EB	SB07402	NO CONTAMINATION FOUND			
	SB00006EB	SB06402, SB04001	NO CONTAMINATION FOUND			
	SB00007EB	SB04002, SB03602, SB03601, SB03601RP	NO CONTAMINATION FOUND			
	SB00008EB	SB04002, SB03602, SB03601, SB03601RP	NO CONTAMINATION FOUND			
90026	SB00001EB	SB05001, SB05001RP, SB00001FB	NO CONTAMINATION FOUND			
90065	SB00009EB	SB06801, SB06801RP, SB06403, SB00002FB	NO CONTAMINATION FOUND			
90067	SB00010EB	SB05701, SB06501	NO CONTAMINATION FOUND			
90072	MW00011EB	MW06601, MW07601, MW00003FB	NO CONTAMINATION FOUND			
90073	MW00012EB	MW4101, MW4201, MW4501, MW4501RP, MW5201, MW5301, MW5801, MW5901	NO CONTAMINATION FOUND			
90076	MW00013EB	MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP	NO CONTAMINATION FOUND			
90078	MW00014EB	MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701	NO CONTAMINATION FOUND			
03501	SW00019EB	SD03601, SD03601D, SD03501, SD04801, SD05201, SD05301, SW03501, SW03601, SW03601RP	NO CONTAMINATION FOUND			
017EB	MW00017EB	MW00801, MW01101, MW04301, MW04401, MW06801, MW06901, MW06901RP, MW07801, MW07901, MW07901RP	NO CONTAMINATION FOUND			
	MW00018EB	MW00601, MW03801, MW03701	NO CONTAMINATION FOUND			

TABLE 4 - 9, CONTINUED

PESTICIDES/PCBS DETECTED IN EQUIPMENT RINSE BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
90082	MW00016EB	MW05601, MW05601RP, MW06301, MW06401, MW07301, MW07401, MW05701, MW06001, MW06501, MW07501, MW05501	NO CONTAMINATION FOUND			
90120	SW00023EB	SW03801, SD03801	NO CONTAMINATION FOUND			
90115	SW00021EB	SW05401, SW05001, SD04901, SD05001, SD05401, SD05401RP	NO CONTAMINATION FOUND			
90109	SW00020EB	SW03401, SW05101, SW05601, SD03401, SD05101, SD05601	NO CONTAMINATION FOUND			
90118	SW00022EB	SW05701, SD05701	NO CONTAMINATION FOUND			
90129	SW00025EB	SW03701, SD03701, SD03901	NO CONTAMINATION FOUND			
90133	SW00028EB	SW04301, SW04301RP, SD04301, SD04301RP	NO CONTAMINATION FOUND			
90123	SW00024EB	SD04401, SD04501, SD05501, SD04701, SD04601, SW004501, SW05501, SW04601, SW04701	NO CONTAMINATION FOUND			
90136	SW00030EB	SW04101, SW04201, SD04101, SD04201	NO CONTAMINATION FOUND			
90138	SW00033EB	SW04001, SW05801, SD04001, SD05801	NO CONTAMINATION FOUND			
90141	SW00035EB	SW06101, SW06201, SD06101, SD06201	NO CONTAMINATION FOUND			
90147	SW00037EB	SW06001, SW05901, SD06001, SD05901	NO CONTAMINATION FOUND			

TABLE 4 - 10

**TOTAL METALS AND CYANIDE DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB	UNITS	VALIDATION	
		SAMPLES		CONC.		QUALIFIER	
02EB	SB00002EB	SB05002, SB04201, SB04202, SB04601	CALCIUM MAGNESIUM	201.0 56.0	ug/L ug/L		
	SB00003EB	SB06401, SB07401, SB05601, SB04602, SB08302, SB08301	MAGNESIUM	33.0	ug/L		
03801	SB00004EB	SB05602, SB03801, SB03802	CALCIUM SODIUM ZINC	51.0 189.0 69.0	ug/L ug/L ug/L		
	SB00005EB	SB07402	ALUMINUM IRON MAGNESIUM SODIUM ZINC	151.0 56.0 333.0 338.0 319.0	ug/L ug/L ug/L ug/L ug/L		
	SB00006EB	SB06402, SB04001	NO CONTAMINATION FOUND				
	SB00007EB	SB04002, SB03602, SB03601, SB03601RP	ZINC	22.0	ug/L		
	SB00008EB	SB04002, SB03602, SB03601, SB03601RP	COPPER ZINC	11.0 969.0	ug/L ug/L		
	90026	SB00001EB	SB05001, SB05001RP, SB00001FB	IRON ZINC	9.2 2.6	ug/L ug/L	
	90065	SB00009EB	SB06801, SB06801RP, SB06403, SB00002FB	ARSENIC LEAD	2.5 2.0	ug/L ug/L	
90067	SB00010EB	SB05701, SB06501	ALUMINUM BARIUM BERYLLIUM CALCIUM CHROMIUM IRON ZINC	41.6 1.0 0.2 47.0 2.6 67.3 37.9	ug/L ug/L ug/L ug/L ug/L ug/L		
90072	MW0011EB	MW06601, MW07601, MW00003FB	COPPER ZINC	2.6 3.1	ug/L ug/L		
90073	MW0012EB	MW4101, MW4201, MW4501, MW4501RP, MW5201, MW5301, MW5801, MW5901	SODIUM	51.1	ug/L		
90076	MW00013EB	MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP	NO CONTAMINATION FOUND				

TABLE 4 - 10, CONTINUED

TOTAL METALS AND CYANIDE DETECTED IN EQUIPMENT RINSE BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB CONC.	UNITS	VALIDATION
		SAMPLES				QUALIFIER
90078	MW00014EB	MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701	ZINC	1.2	ug/L	
90100	SW00019EB	SD03601, SD03601D, SD03501, SD04801, SD05201, SD05301, SW03501, SW03601, SW03601RP	COPPER ZINC	9.80 4.30	ug/L ug/L	
90083	MW00017EB	MW00801, MW01101, MW04301, MW04401, MW06801, MW06901, MW06901RP, MW07801, MW07901, MW07901RP	ALUMINUM CALCIUM IRON ZINC	128.00 263.00 9.10 5.30	ug/L ug/L ug/L ug/L	
90082	MW00016EB	MW05601, MW05601RP, MW06301, MW06401, MW07301, MW07401, MW05701, MW06001, MW06501, MW07501, MW05501	ALUMINUM IRON ZINC	22.70 6.00 4.30	ug/L ug/L ug/L	
90100	SW00020EB	SW03401, SW05101, SW05601	IRON ZINC	8.40 6.10	ug/L ug/L	
90120	SW00023EB	SW03801, SD03801	ZINC	2.60	ug/L	
90115	SW00021EB	SW05401, SW05001, SD04901, SD05001, SD05401, SD05401RP	COBALT ZINC	3.70 6.40	ug/L ug/L	
90109	SW00020EB	SW03401, SW05101, SW05601, SD03401, SD05101, SD05601	ALUMINUM COPPER ZINC	31.90 3.20 3.50	ug/L ug/L ug/L	
90118	SW00022EB	SW05701, SD05701	ZINC	2.00	ug/L	
90129	SW00025EB	SW03701, SD03701, SD03901	COPPER LEAD SODIUM ZINC	2.90 1.50 22.70 2.60	ug/L ug/L ug/L ug/L	
90133	SW00028EB	SW04301, SW04301RP, SD04301, SD04301RP	ALUMINUM CHROMIUM COPPER	27.30 2.50 2.70	ug/L ug/L ug/L	
90123	SW00024EB	SD04401, SD04501, SD05501, SD04701, SD04601, SW004501, SW05501, SW04601, SW04701	IRON LEAD	6.90 1.90	ug/L ug/L	
90136	SW00030EB	SW04101, SW04201, SD04101 SD04201	ALUMINUM CHROMIUM LEAD	63 3.00 1.80	ug/L ug/L ug/L	

TABLE 4 - 10, CONTINUED

TOTAL METALS AND CYANIDE DETECTED IN EQUIPMENT RINSE BLANKS

NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
90138	SW00033EB	SW04001, SW05801, SD04001 SD05801	NO CONTAMINATION FOUND			
90141	SW00035EB	SW06101, SW06201, SD06101 SD06201	IRON	35.4	ug/L	
			CYANIDE	0.41	ug/L	
90147	SW00037EB	SW06001, SW05901, SD06001, SD05901	ALUMINUM	29.3	ug/L	
			CADMIUM	1.1	ug/L	
			IRON	22.5	ug/L	
			MANGANESE	1.0	ug/L	

TABLE 4 - 11

**DISSOLVED METALS DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
90074	MW00011EB	MW06601, MW07601, MW00003FB	NO CONTAMINATION FOUND			
90075	MW00012EB	MW4101, MW4201, MW4501, MW4501RP, MW5201, MW5301, MW5801, MW5901	COPPER ZINC	10.7 7.4	ug/L ug/L	
90077	MW00013EB	MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP	LEAD SODIUM	1.3 35.1	ug/L ug/L	
90079	MW00014EB	MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701	BARIUM CHROMIUM COPPER LEAD MAGNESIUM MANGANESE	1.4 3.4 1.1 0.5 24.6 1.6	ug/L ug/L ug/L ug/L ug/L ug/L	
90081	MW00016EB	MW05501, MW05601, MW05601RP, MW05701, MW06001, MW06301, MW06401, MW06501, MW07301, MW07401, MW07501	MANGANESE VANADIUM ZINC	1.2 2.6 10.8	ug/L ug/L ug/L	
90084	MW00017EB	MW00801, MW01101, MW04301, MW04401, MW06801, MW06901, MW07801, MW07901, MW07901RP	ANTIMONY ZINC	20.6 10.8	ug/L ug/L	
90087	MW00018EB	MW00601, MW03701, MW03801	IRON MERCURY ZINC	7.10 0.49 11.00	ug/L ug/L ug/L	
90086	MW00018EB	MW00601, MW03701, MW03801	ALUMINUM ZINC	24.20 4.20	ug/L ug/L	
90124	SW00024EB	SW04501, SW04601, SW04701, SW05501	IRON	12.80	ug/L	
90113	SW00021EB	SW05001, SW05401, SW05401RP	IRON ZINC	7.20 12.50	ug/L ug/L	
90114	SW00022EB	SW05701	IRON ZINC	6.30 3.40	ug/L ug/L	
90105	SW00019EB	SW00004FB, SW03501, SW03601, SW03601RP	ALUMINUM ZINC	24.80 21.80	ug/L ug/L	
90119	SW00023EB	SW03801	ZINC	4.10	ug/L	

TABLE 4 - 11, CONTINUED

DISSOLVED METALS DETECTED IN EQUIPMENT RINSE BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
90130	SW00025EB	SW00025EB, SW03701	BERYLLIUM	0.42	ug/L	
			SODIUM	25.0	ug/L	
			ZINC	2.3	ug/L	
90135	SW00028EB	SW04301, SW04301RP	IRON	17.6	ug/L	
90137	SW00030EB	SW04101, SW04201	BARIUM	1.70	ug/L	
			MAGNESIUM	31.80	ug/L	
90139	SW00033EB	SW04001, SW05801	COPPER	8.10	ug/L	
90142	SW00035EB	SW06101, SW06201	ALUMINUM	53.7	ug/L	
			CADMIUM	0.88	ug/L	
			IRON	108	ug/L	
			MANGANESE	1.0	ug/L	
90148	SW00037EB	SW05901, SW06001	ALUMINUM	52.8	ug/L	
			ARSENIC	0.60	ug/L	
			BARIUM	2.5	ug/L	
			IRON	8.5	ug/L	
			MAGNESIUM	18.0	ug/L	
			MANGANESE	1.0	ug/L	
			NICKEL	8.7	ug/L	

TABLE 4 - 12

**GC/MS VOLATILES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
02EB	VBLK1	02EB, 02TB, 03EB, 03TB	NO CONTAMINATION FOUND			
	VBLK2	SB04201, SB04202, SB04601, SB04602, SB05002, SB05601, SB06401, SB06401MS, SB06401MSD, SB07401, SB08301, SB08302	NO CONTAMINATION FOUND			
03801	VBLK1	SB03602, SB03802, SB07402	ACETONE	3	ug/Kg	U
		SB04001, SB04002, SB05602, SB06402, SB03601MS	ACETONE	3	ug/Kg	CRQL
	VBLK2	SB04EB, SB04TB, SB05EB, SB05TB, SB06EB, SB06TB, SB07EB, SB07TB, SB08EB	NO CONTAMINATION FOUND			
90026	VBLK44	SB00001FB, SB00001TB	NO CONTAMINATION FOUND			
	VBLK46	SB00001EB	NO CONTAMINATION FOUND			
	VBLK4F	SB05001	NO CONTAMINATION FOUND			
	VBLK4H	SB05001RP, SB05001MD, SB05001MS	NO CONTAMINATION FOUND			
90065	VBLK51	SB00002FB, SB00009EB, SB00009TB, SB06403, SB06801, SB06801RP, SB06801MD, SB06801MS	4-METHYL-2-PENTANONE 2-HEXANONE	2 4	ug/L ug/L	
90067	VBLKW1	SB00001EB, SB00001TB	METHYLENE CHLORIDE	3	ug/L	CRQL
		SB00001TB	ACETONE	4	ug/L	CRQL
	VBLKS1	SB05701, SB06501	METHYLENE CHLORIDE	5	ug/Kg	CRQL
		SB05701	ACETONE	10	ug/Kg	U
		SB06501	ACETONE	10	ug/Kg	CRQL
90072	VBLK1	MW0003FB, MW0011EB, MW0011TB, MW06601, MW07601	NO CONTAMINATION FOUND			
90073	VBLK1	MW0012EB, MW0012TB, MW4501, MW4501RPM, MW5201, MW5301	NO CONTAMINATION FOUND			
	VBLK2	MW04101, MW04201, MW04501MS, MW04501MSD, MW05801, MW05901	NO CONTAMINATION FOUND			
90076	VBLKW1	MW00013EB, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP	METHYLENE CHLORIDE	3	ug/L	CRQL
		MW03901, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04701, MW05001, MW05101, MW05401, MW05401RP	ACETONE	5	ug/L	CRQL
		MW04001, MW04801, MW04901	ACETONE	5	ug/L	U
90078	VBLKW1_0807	MW00014TB, MW00014EB, MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701, MW06101MS, MW06101MSD	METHYLENE CHLORIDE	2	ug/L	CRQL
		MW00014TB, MW00014EB, MW06701, MW07701, MW06101MS	ACETONE	3	ug/L	U
		MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06101MSD	ACETONE	3	ug/L	CRQL

TABLE 4 - 12, CONTINUED

GC/MS VOLATILES DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90082	VBLKW1_0810	MW00016TB, MW00016EB MW05601, MW07401	METHYLENE CHLORIDE	2	ug/L	CRQL
		MW00016EB, MW07401, MW05701	ACETONE	4	ug/L	CRQL
		MW05601, MW06001	ACETONE	4	ug/L	U
	VBLKW1_0814	MW05501, MW05601RP, MW06301, MW06401, MW06501, MW07301, MW07501, MW05601MS, MW05601MSD	METHYLENE CHLORIDE BENZENE	1 1	ug/L ug/L	
		MW05601RP, MW06301, MW07501, MW05601MSD	ACETONE	6	ug/L	CRQL
		MW06401, MW07301, MW06501, MW05501, MW05601MS	ACETONE	6	ug/L	U
03501	VBLK1	SW00004FB, SW000119EB, SW00019TB, SW03501, SW03601, SW03601MS, SW03601MSD, SW03601RP	NO CONTAMINATION FOUND			
	VBLK2	SD05301, SD05201, SD04801	ACETONE	3	ug/Kg	CRQL
		SD03601RP, SD03601, SD03501 SD03601MS, SD03601MSD	ACETONE ACETONE	3 3	ug/Kg ug/Kg	NA U
017EB	VBLK1	MW00017EB, MW00017TB, MW07901	NO CONTAMINATION FOUND			
	VBLK2	MW07801	ACETONE	10	ug/L	CRQL
	VBLK3	MW00018TB, MW0601MS, MW0601MSD	NO CONTAMINATION FOUND			
90120	VBLK5H	SD03801	NO CONTAMINATION FOUND			
	VBLK5Q	SW00023EB, SW00023TB, SW03801	NO CONTAMINATION FOUND			
90115	VBLK5D	SD04901, SD05001, SD05401, SD05401RP	NO CONTAMINATION FOUND			
	VBLK5L	SW05401RP, SW05401, SW05001	DICHLOROETHENE	2	ug/L	CRQL
90109	VBLK5H	SD03401, SD05101, SD05601, SD05601DL	NO CONTAMINATION FOUND			
	VBLK5J	SW00020EB, SW03401, SW05101, SW05601	NO CONTAMINATION FOUND			
	VBLK5K	SW00020TB	DICHLOROETHENE	2	ug/L	
90118	VBLK5H	SD05701	NO CONTAMINATION FOUND			
	VBLK5M	SW00022EB, SW00022TB, SW05701	NO CONTAMINATION FOUND			
90129	VBLK5P	SD03701	NO CONTAMINATION FOUND			
	VBLK5Q	SW00025EB, SW00026TB, SW03701	NO CONTAMINATION FOUND			
	VBLK5R	SD03901	NO CONTAMINATION FOUND			
90133	VBLK5P	SD04301, SD04301RP, SD04301MD, SD04301MS	NO CONTAMINATION FOUND			
	VBLK5S	SW00027TB, SW00028EB, SW04301, SW04301RP, SW04301MS, SW04301MS	NO CONTAMINATION FOUND			

TABLE 4 - 12, CONTINUED

GC/MS VOLATILES DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90123	VBLK5N	SW00024EB, SW00024TB, SW04501, SW0601, SW04701, SW05501	NO CONTAMINATION FOUND			
	VBLK5P	SD04401, SD04501, SD04601, SD04701, SD05501	NO CONTAMINATION FOUND			
90144	VBLK5T	CW00032TB, CW00036EB, CW01401, CW01402, CW01501, CW01502, CW01602	NO CONTAMINATION FOUND			
90143	VBLK5V	CW00034EB, CW01601, CW01701, CW01702, CW01702RP, CW01702MD, CW01702MS	NO CONTAMINATION FOUND			
	VBLK5W	CW00031TB	NO CONTAMINATION FOUND			
90136	VBLK5P	SD04101, SD04201	NO CONTAMINATION FOUND			
	VBLK5S	SW00028TB, SW00030EB, SW04101, SW04201	NO CONTAMINATION FOUND			
90138	VBLK5R	SD04001, SD05801	NO CONTAMINATION FOUND			
	VBLK5S	SW00029TB, SW00033EB, SW04001, SW05801	NO CONTAMINATION FOUND			
90141	VBLK5T	SW00030TB, SW00035EB, SW06101, SW06201	NO CONTAMINATION FOUND			
	VBLK5U	SD06101, SD06201	NO CONTAMINATION FOUND			
90147	VBLK5W	SW00033TB, SW00037EB, SW05901, SW06001	NO CONTAMINATION FOUND			
	VBLK5U	SD05901, SD06001	NO CONTAMINATION FOUND			
90160	VBLK69	JXCW00034TB, JXCW04402, JXCW04402MS, JXCW04402MSD, JXCW00046EB	NO CONTAMINATION FOUND			
90176	VBLK6Q	JXCW07801	NO CONTAMINATION FOUND			
	VBLK6R	JXCW05102, JXCW07801DL	NO CONTAMINATION FOUND			
	VBLK6S	JXCW00035TB, JXCW00036TB, JXCW00063EB, JXCW00064EB, JXCW05101, JXCW07701	NO CONTAMINATION FOUND			
	VBLK6T	JXCW07701DL, JXCW07801DUP, JXCW08101, JXCW07701MS, JXCW07701MSD	NO CONTAMINATION FOUND			
90195	VBLK6W	JXCW00037TB, JXCW00071EB, JXCW09001, JXCW09001MS, JXCW09001MSD	NO CONTAMINATION FOUND			
	VBLK6X	JXCW09001DL	NO CONTAMINATION FOUND			

TABLE 4 - 13

**SEMIVOLATILES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
02EB	SBLK1A	SB02EB, SB03EB	DI-N-BUTYLPHTHALATE	1	ug/L	
	SBLK2	SB004201, SB04202, SB04601, SB04602, SB05002, SB05601, SB06401, SB07401, SB08301, SB08302, SB06401MS, SB06401MSD	DI-N-BUTYLPHTHALATE	18	ug/Kg	CRQL
		SB04201, SB04601, SB04602, SB05002, SB07401, SB08301, SB08302, SB06401MS, SB06401MSD	BIS(2-ETHYLHEXYL)PHTHALATE	19	ug/Kg	CRQL
		SB04202	BIS(2-ETHYLHEXYL)PHTHALATE	19	ug/Kg	U
03801	SBLK1	SB04EB, SB05EB, SB06EB	NO CONTAMINATION FOUND			
	SBLK2	SB07EB, SB08EB	NO CONTAMINATION FOUND			
	SBLK3	SB03601, SB03601RP, SB03602, SB03801, SB03802, SB04002, SB04001, SB05602, SB06402, SB07402, SB03601MS, SB03601MSD	DI-N-BUTYLPHTHALATE	29	ug/Kg	CRQL
90026	SBLK21	SB05001, SB05001RP, SB05001MD, SB05001MS	NO CONTAMINATION FOUND			
	SBLK24	SB00001EB, SB00001FB	NO CONTAMINATION FOUND			
90065	SBLK3L	SB06801, SB06801RP, SB06403, SB06801MS, SB06801MSD	DI-N-BUTYLPHTHALATE	360	ug/Kg	U
	SBLK3P	SB0002FB, SB0009EB	NO CONTAMINATION FOUND			
90067	SBLK3N	SB05701, SB06501	DI-N-BUTYLPHTHALATE	340	ug/Kg	U
	SBLK3R	SB00010EB	NO CONTAMINATION FOUND			
90072 (003FB)	SBLK1	MW0003FB, MW0011EB, MW6601, MW7601	NO CONTAMINATION FOUND			
90073 (012E)	SBLK1	MW0012EB, MW4101, MW4201, MW4501, MW4501RP, MW5201, MW5301, MW5601, MW5901	NO CONTAMINATION FOUND			
90076	SBLKW1_0803	MW00013FB, MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501	DIETHYLPHTHALATE	2	ug/L	CRQL
	SBLKW2_0803	MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401	DIETHYLPHTHALATE	3	ug/L	CRQL
	SBLKW3_0803	MW05401RP	DIETHYLPHTHALATE	3	ug/L	CRQL
90078	SBLKW1_0805	MW00014EB, MW00901, MW06201, MW06701, MW07001, MW07101, MW07101RP, MW07201, MW08201, MW08301	NO CONTAMINATION FOUND			
	SBLKW2_0805	MW06101, MW06101MS, MW06101MSD	BIS(2-ETHYLHEXYL)PHTHALATE	2	ug/L	CRQL

TABLE 4 - 13, CONTINUED

SEMIVOLATILES DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90082	SBLKW1_0807	MW00016EB, MW05601, MW05601RP, MW05601MS, MW05601MSD	NO CONTAMINATION FOUND			
	SBLKW2_0807	MW05501, MW05701, MW06001, MW06401, MW06501, MW07301, MW07401, MW07501	NO CONTAMINATION FOUND			
	SBLK1	MW06301	BIS(2-ETHYLHEXYL)PHTHALATE	1		
03501	SBLK1	SW03501, SW03601	BIS(2-ETHYLHEXYL)PHTHALATE	1	ug/L	CRQL
	SBLK2	SD03501, SD03601RP, SD04801, SD05201, SD05301	DI-N-BUTYLPHTHALATE	81	ug/Kg	CRQL
0017EB	SBLK1	MW00017EB, MW00018EB, MW0601, MW0801, MW01101, MW03701, MW03801, MW04301, MW04401, MW06801, MW06901, MW06901RP, MW07801, MW07901, MW07901RP	NO CONTAMINATION FOUND			
	SBLK2	MW00601MS, MW00601MSD	NO CONTAMINATION FOUND			
90115	SBLK4T	SD05401RP	DI-N-BUTYLPHTHALATE	130	ug/Kg	CRQL
	SBLK56	SW00021EB, SW05001, SW05401, SW05401RP	NO CONTAMINATION FOUND			
90120	SBLK4Y	SW03801	NO CONTAMINATION FOUND			
	SBLK50	SW00023EB	NO CONTAMINATION FOUND			
	SBLK55	SD03801	DI-N-BUTYLPHTHALATE	210	ug/Kg	CRQL
90118	SBLK4Y	SW00022EB, SW05701	NO CONTAMINATION FOUND			
	SBLK55	SD05701	DI-N-BUTYLPHTHALATE	210	ug/Kg	CRQL
90109	SBLK4K	SW00020EB, SW03401, SW05101, SW05601	NO CONTAMINATION FOUND			
	SBLK4T	SD03401, SD05601	DI-N-BUTYLPHTHALATE	130	ug/Kg	
	SBLK4V	SD05101	DI-N-BUTYLPHTHALATE	180	ug/Kg	
90129	SBLK51	SW03701	NO CONTAMINATION FOUND			
	SBLK52	SW00025EB	NO CONTAMINATION FOUND			
	SBLK59	SD03701, SD03901	DI-N-BUTYLPHTHALATE	560	ug/Kg	U
90133	SBLK54	SW00028EB, SW04301, SW04301RP, SW04301MD, SW04301MS	NO CONTAMINATION FOUND			
	SBLK5A	SD04301, SD04301RP, SD04301MS, SD04301MD	DI-N-BUTYLPHTHALATE	520	ug/Kg	U
90123	SBLK50	SW00024EB, SW04501, SW04601, SW04701, SW05501	NO CONTAMINATION FOUND			
	SBLK55	SD04401, SD04501, SD05501	DI-N-BUTYLPHTHALATE	210	ug/Kg	CRQL
	SBLK57	SD04701, SD04601	DI-N-BUTYLPHTHALATE	220	ug/Kg	CRQL
90136	SBLK54	SW00030EB, SW04101, SW04201	NO CONTAMINATION FOUND			
	SBLK5Q	SD04101, SD04201	DI-N-BUTYLPHTHALATE	350	ug/Kg	CRQL

TABLE 4 - 13, CONTINUED
SEMIVOLATILES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90138	SBLK5B	SW00033EB, SW04001, SW05601	NO CONTAMINATION FOUND			
	SBLK5N	SD04001, SD05801	DI-N-BUTYLPHTHALATE	180	ug/Kg	CRQL
90141	SBLK5B	SW00035EB, SW06101, SW06201	NO CONTAMINATION FOUND			
	SBLK5N	SD06101, SD06201	DI-N-BUTYLPHTHALATE	180	ug/Kg	CRQL
90147	SBLK5M	SW00037EB, SW05901, SW06001	NO CONTAMINATION FOUND			
	SBLK5N	SD05901	DI-N-BUTYLPHTHALATE	180	ug/Kg	CRQL

TABLE 4 - 14

**PESTICIDES/PCBs DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBE	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
02EB	PBLK1	SB00002EB, SB00003EB	NO CONTAMINATION FOUND			
	PBLK2	SB05002, SB04201, SB04202, SB04601, SB06401, SB06401MS, SB06401MSD, SB07401, SB05601, SB04602, SB08302, SB08301	NO CONTAMINATION FOUND			
03801	PBLK1	SB0004EB, SB0005EB, SB0006EB	NO CONTAMINATION FOUND			
	PBLK2	SB0007EB, SB0008EB	NO CONTAMINATION FOUND			
	PBLK3	SB05602, SB03801, SB03802, SB07402, SB06402, SB04001, SB04002, SB03602, SB03601, SB03601MS, SB03601MSD,	NO CONTAMINATION FOUND			
90026	PBLK08	SB05001, SB05001MS, SB05001MS SB05001RP	NO OCNTAMINATION FOUND			
	PBLK07	SB00001FB, SB00001EB	NO CONTAMINATION FOUND			
90065	PBLK01	SB0009EB, SB0009FB	NO CONTAMINATION FOUND			
	PBLK02	SB06801, SB06801MD, SB06801MS, SB06801RP, SB06403	NO CONTAMINATION FOUND			
90067	PBLK20	SB00010EB	NO CONTAMINATION FOUND			
	PBLK23	SB05701, SB06501	NO CONTAMINATION FOUND			
90072 (003FB)	PBLK1	MW0003FB, MW0011EB, MW06601, MW07601	NO CONTAMINATION FOUND			
90073 (002E)	PBLK1	MW0012EB, MW4101, MW4201, MW4501MS, MW4501MSD, MW4501 MW4501, MW5201, MW5801, MW5901	NO CONTAMINATION FOUND			
90076	PBLKW1_08_04	MW00013EB, MW04601, MW03901, MW04001, MW08101, MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP, MW05401RPMS, MW05401RPMSD	NO CONTAMINATION FOUND			
	PBLKW2_08_04	MW01001, MW08001	NO CONTAMINATION FOUND			
90078	PBLKW1_08_05	MW00014EB, MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06101MS, MW06101MSD, MW06 MW06701, MW07701	NO CONTAMINATION FOUND			

TABLE 4 - 14, CONTINUED

PESTICIDES/PCBs DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBE	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
017EB	PBLK1	MW00017EB, MW00018EB, MW0060 MW00801, MW01101, MW03701, MW03801, MW04301, MW04401, MW06801, MW06901, MW06901RP, MW07801, MW07901, MW07901RP.	NO CONTAMINATION FOUND			
	PBLK2	MW00601MS, MW00601MSD	NO CONTAMINATION FOUND			
90082	PBLK1	MW00016EB, MW05601, MW05601R MW06301, MW06401, MW07301, MW07401, MW05701, MW06001, MW06501, MW07501, MW05501	NO CONTAMINATION FOUND			
03501	PBLK01	SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301	NO CONTAMINATION FOUND			
	PBLK02	SW00004FB, SW00019EB, SW03501 SW03601, SW03601RP	NO CONTAMINATION FOUND			
90120	PBLK1	SD03801	NO CONTAMINATION FOUND			
	PBLK2	SW03801, SW00023EB	NO CONTAMINATION FOUND			
90115	PBLK01	SD04901, SD05001, SD05401RP	NO CONTAMINATION FOUND			
	PBLK07	SD05401	NO CONTAMINATION FOUND			
	PBLK02	SW00021EB, SW05001, SW05401, SW05401RP	NO CONTAMINATION FOUND			
90109	PBLK02	SW00020EB, SW03401, SW05101, SW05601	NO CONTAMINATION FOUND			
	PBLK01	SD03401, SD05601, SD05101	NO CONTAMINATION FOUND			
90118	PBLK01	SD05701	NO CONTAMINATION FOUND			
	PBLK02	SW00022EB, SW05701	NO CONTAMINATION FOUND			
90129	PBLK01	SW03701, SW00025EB	NO CONTAMINATION FOUND			
	PBLK07	SD03701, SD03901	NO CONTAMINATION FOUND			
90133	PBLK01	SW00028EB, SW04301, SW04301RP SW04301MS, SW04301MSD	NO CONTAMINATION FOUND			
	PBLK07	SD04301, SD04301RP, SD04301MS, SD04301MSD	NO CONTAMINATION FOUND			
90123	PBLK01	SW04501, SW05501, SW04601, SW04701, SW00024EB	NO CONTAMINATION FOUND			
	PBLK03	SD04401, SD04501, SD05501, SD04701, SD04601	NO CONTAMINATION FOUND			
90136	PBLK01	SW00030EB, SW04101, SW04201	NO CONTAMINATION FOUND			
	PBLK07	SD04101, SD04201	NO CONTAMINATION FOUND			

TABLE 4 - 14, CONTINUED

**PESTICIDES/PCBs DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBE	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90138	PBLK01	SD04001, SD05801	NO CONTAMINATION FOUND			
	PBLK02	SW00033EB, SW04001, SW05801	NO CONTAMINATION FOUND			
90141	PBLK01	SD06101, SD06201	NO CONTAMINATION FOUND			
	PBLK02	SW06101, SW06201, SW00035EB	NO CONTAMINATION FOUND			
90147	PBLK01	SD06001, SD05901	NO CONTAMINATION FOUND			
	PBLK02	SW06001, SW05901, SW00037EB	NO CONTAMINATION FOUND			

TABLE 4 - 15

TOTAL METALS AND CYANIDE DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
02EB	SB0002EB, SB0003EB	ALUMINUM	131.00	ug/L	U
		CALCIUM	36.00	ug/L	U
		IRON	35.00	ug/L	U
		LEAD	2.50	ug/L	U
		ZINC	13.00	ug/L	U
	SB0002EB, SB0003EB	ARSENIC	-1.6	ug/L	UJ
		MANGANESE	-6.0	ug/L	UJ
	SB05002, SB04201, SB04202, SB04601, SB06401, SB06401MS, SB06401MSD, SB07401, SB05601, SB04602, SB08302, SB08301	ALUMINUM	3.80	mg/Kg	
		LEAD	0.30	mg/Kg	
		ZINC	0.60	mg/Kg	
SB05002, SB04201, SB04202, SB04601, SB06401, SB06401MS, SB06401MSD, SB07401, SB05601, SB04602, SB08302, SB08301	MANGANESE	-1.2	mg/Kg	J/UJ	
	SILVER	-1.4	mg/Kg	J/UJ	
03801	SB00004EB, SB00005EB, SB00006EB, SB00007EB, SB00008EB	BARIUM	2.00	ug/L	U
		BERYLLIUM	1.00	ug/L	U
		MANGANESE	2.00	ug/L	U
		ZINC	7.00	ug/L	U
	SB00004EB, SB00005EB, SB00006EB, SB00007EB, SB00008EB	ALUMINUM	-36.0	ug/L	J/UJ
		IRON	-17.0	ug/L	J/UJ
	SB05602, SB03801, SB03802, SB07402, SB06402, SB04001, SB04002, SB03602, SB03601, SB03601MS, SB03601MSD	ZINC	0.80	mg/Kg	U
		ALUMINUM	-31.0	mg/Kg	J/UJ
	SB05602, SB03801, SB03802, SB07402, SB06402, SB04001, SB04002, SB03602, SB03601, SB03601MS, SB03601MSD	CALCIUM	-36.0	mg/Kg	J/UJ
		IRON	-14.6	mg/Kg	J/UJ
SB05602, SB03801, SB03802, SB07402, SB06402, SB04001, SB04002, SB03602, SB03601, SB03601MS, SB03601MSD	MAGNESIUM	-34.8	mg/Kg	J/UJ	
90026	SB00001EB, SB00001FB	COPPER	2.40	ug/L	
		SODIUM	21.10	ug/L	U
	SB05001, SB05001RP, SB05001MS, SB05001MSD	CALCIUM	111.00	mg/Kg	U
		COPPER	4.66	mg/Kg	U
		IRON	14.60	mg/Kg	
		MAGNESIUM	66.10	mg/Kg	U
SB05001, SB05001RP, SB05001MS, SB05001MSD	SODIUM	10.40	mg/Kg	U	
90065	SB0009EB, SB0009EBD, SB0009EBS, SB0002FB, SB0002FBD, SB0002FBS	MANGANESE	0.79	ug/L	
		SODIUM	21.00	ug/L	
	SB0009EB, SB0009EBD, SB0009EBS, SB0002FB, SB0002FBD, SB0002FBS	POTASSIUM	-538	ug/L	UJ
	SB06801, SB06801MS, SB06801MD, SB06403	CALCIUM	1.96	mg/Kg	
		IRON	2.14	mg/Kg	
		MANGANESE	0.10	mg/Kg	
		SODIUM	14.76	mg/Kg	U
		ZINC	0.82	mg/Kg	
	SB06801, SB06801MS, SB06801MD, SB06403	COPPER	-1.70	mg/Kg	J/UJ
LEAD		-0.39	mg/Kg	J/UJ	
POTASSIUM		-92.7	mg/Kg	J/UJ	
SILVER		-0.26	mg/Kg	J/UJ	
THALLIUM		-0.21	mg/Kg	J/UJ	

TABLE 4 - 15, CONTINUED
TOTAL METALS AND CYANIDE DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90067	SB00010EB, SB00010EBD, SB00010EBS	SODIUM	57.00	ug/L	U
	SB00010EB, SB00010EBD, SB00010EBS	COPPER	-10.9	ug/L	J/UJ
	SB00010EB, SB00010EBD, SB00010EBS	CYANIDE	-1.05	ug/L	J/UJ
	SB05701, SB06501	IRON	2.14	mg/Kg	
		SODIUM	14.80	mg/Kg	U
		ZINC	0.82	mg/Kg	
	SB05701, SB06501	BERYLLIUM	-0.04	mg/Kg	J/UJ
		COPPER	-1.7	mg/Kg	J/UJ
		LEAD	-0.39	mg/Kg	J/UJ
		THALLIUM	-0.21	mg/Kg	J/UJ
90072	MW00003FB, MW00011EB, MW06601, MW06601MS, MW06601MD, MW07601	SODIUM	41.00	ug/L	U
90073	MW0012EB, MW4101, MW4201, MW4501, MW4501MW, MW4501MSD, MW4501RP, MW5201, MWS301, MW5801, MWS901	NO CONTAMINATION FOUND			
90076	MW00013EB, MW04601, MW04601S, MW04601D, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03501S, MW03501D, MW03601, MW03601S, MW03601D, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP	LEAD	-0.83	ug/L	J/UJ
90078	MW00014EB, MW08201, MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06101MS, MW06101MSD, MW06201, MW06701, MW07701	CALCIUM	23.60	ug/L	U
		SODIUM	61.70	ug/L	U
017EB	MW00017EB, MW00018EB, MW00601, MW00801, MW01101, MW03701, MW6801, MW03801, MW04301, MW04401, MW06901, MW06901RP, MW07801, MW07901, MW07901RP	ALUMINUM	24.00	ug/L	U
		ANTIMONY	22.80	ug/L	U
90082	MW00016EB, MW05601, MW05601RP, MW06301, MW06401, MW07301, MW07401, MW05701, MW06001, MW06501, MW07501, MW05501	POTASSIUM	445.00	ug/L	U
		SODIUM	24.40	ug/L	U
		ANTIMONY	25.10	ug/L	U
		COPPER	2.45	ug/L	U
		SELENIUM	1.90	ug/L	U
03501 (90100)	SW0004FB, SW00019EB, SW03501, SW03601, SW03601RP	SODIUM	38.00	ug/L	U
		THALLIUM	-0.93	ug/L	UJ
		ARSENIC	0.64	mg/Kg	U
		CHROMIUM	0.77	mg/Kg	U
SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301	SODIUM	74.90	mg/Kg	U	
	COPPER	-0.49	mg/Kg	J/UJ	
	LEAD	-0.21	mg/Kg	J/UJ	
SD03501, SD03601, SD03601RP, SD04801, SD05201, SD05301	ZINC	-0.46	mg/Kg	J/UJ	

TABLE 4 - 15, CONTINUED

**TOTAL METALS AND CYANIDE DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90115	SW00021EB, SW05401, SW05001	COPPER	22.00	ug/L	U
		IRON	14.20	ug/L	U
		SODIUM	32.10	ug/L	U
	SW00021EB, SW05401, SW05001	CADMIUM	-3.5	ug/L	J/UJ
		LEAD	-0.77	ug/L	J/UJ
		MERCURY	-0.12	ug/L	J/UJ
	SD04901, SD05001, SD05401, SD05401RP	ARSENIC	0.64	mg/Kg	U
		CHROMIUM	0.77	mg/Kg	U
		SODIUM	74.90	mg/Kg	U
	SD04901, SD05001, SD05401, SD05401RP	COPPER	-0.49	mg/Kg	J/UJ
		LEAD	-0.21	mg/Kg	J/UJ
		ZINC	-0.46	mg/Kg	J/UJ
90118	SW00022EB, SW05701	COPPER	22.00	ug/L	U
		IRON	14.20	ug/L	U
		SODIUM	32.10	ug/L	U
	SW00022EB, SW05701	CADMIUM	-3.5	ug/L	J/UJ
		LEAD	-0.77	ug/L	J/UJ
		MERCURY	-0.12	ug/L	J/UJ
	SD05701	ARSENIC	0.64	mg/Kg	U
		CHROMIUM	0.77	mg/Kg	U
		SODIUM	74.90	mg/Kg	U
	SD05701	COPPER	-0.49	mg/Kg	J/UJ
		LEAD	-0.21	mg/Kg	J/UJ
		ZINC	-0.46	mg/Kg	J/UJ
90109	SW00020EB, SW0301, SW05101, SW05601, SD03401, SD05101, SD05601	ARSENIC	-3.26	ug/L	J/UJ
		CHROMIUM	0.77	mg/Kg	U
		SODIUM	74.90	mg/Kg	U
	SD03401, SD05101, SD05601	COPPER	-0.49	mg/Kg	J/UJ
		LEAD	-0.21	mg/Kg	J/UJ
		ZINC	-0.46	mg/Kg	J/UJ
90123	SD04401, SD04501, SD04501S, SD04501D, SD05501, SD04701, SD04601	COPPER	0.69	mg/Kg	U
		LEAD	-0.26	mg/Kg	J/UJ
	SD04401, SD04501, SD04501S, SD04501D, SD05501, SD04701, SD04601	SODIUM	-11.8	mg/Kg	J/UJ
		SW04501, SW05501, SW04601, SW04601S, SW04601D, SW04701, SW00024EB	ALUMINIUM	32.20	ug/L
	COPPER		9.90	ug/L	U
	VANADIUM		2.81	ug/L	U
	CYANIDE		1.73	ug/L	U
	SW04501, SW05501, SW04601, SW04601S, SW04601D, SW04701, SW00024EB	MERCURY	-0.12	ug/L	UJ
SODIUM		-37.7	ug/L	UJ	

TABLE 4 - 15, CONTINUED

TOTAL METALS AND CYANIDE DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90133	SD04301, SD04301RP, SD04301MS, SD04301MD	ARSENIC	0.64	mg/Kg	U
		CHROMIUM	0.77	mg/Kg	U
		SODIUM	74.90	mg/Kg	U
	SD04301, SD04301RP, SD04301MS, SD04301MS	COPPER	-0.49	mg/Kg	J/UJ
		LEAD	-0.21	mg/Kg	J/UJ
		ZINC	-0.46	mg/Kg	J/UJ
	SW00028EB, SW04301, SW04301MS, SW04301MSD	IRON	5.43	ug/L	U
MERCURY		-0.14	ug/L	UJ	
SW00028EB, SW04301, SW04301MS, SW04301MSD	SODIUM	-38.3	ug/L	UJ	
90129	SD03701, SD03701S, SD03701D, SD03901	ARSENIC	0.64	mg/Kg	U
		CHROMIUM	0.77	mg/Kg	U
		SODIUM	74.90	mg/Kg	U
	SD03701, SD03701S, SD03701D, SD03901	COPPER	-0.49	mg/Kg	J/UJ
		LEAD	-0.21	mg/Kg	J/UJ
		ZINC	-0.46	mg/Kg	J/UJ
	SW03701, SW03701S, SW03701D, SW00025EB	ALUMINUM	27.80	ug/L	U
		IRON	6.04	ug/L	U
	SW03701, SW03701S, SW03701D, SW00025EB	MERCURY	-0.12	ug/L	UJ
		SELENIUM	-2.9	ug/L	UJ
90136	SD04101, SD04101S, SD04101D, SD04201	ARSENIC	0.64	mg/Kg	U
		CHROMIUM	0.77	mg/Kg	U
		SODIUM	74.90	mg/Kg	U
	SD04101, SD04101S, SD04101D, SD04201	COPPER	-0.49	mg/Kg	J/UJ
		LEAD	-0.21	mg/Kg	J/UJ
		ZINC	-0.46	mg/Kg	J/UJ
	SW00030EB, SW04101, SW04201	IRON	5.43	ug/L	U
VANADIUM		2.55	ug/L	U	
SW00030EB, SW04101, SW04201	SODIUM	-38.3	ug/L		
90141	SW06101, SW06101S, SW06101D, SW06201, SW00035EB	CALCIUM	43.2	ug/L	U
		SODIUM	49.7	ug/L	U
		ZINC	2.1	ug/L	U
	SD06101, SD06201	ALUMINUM	2.51	mg/Kg	
		CALCIUM	11.7	mg/Kg	
		SODIUM	6.9	mg/Kg	
		ZINC	0.37	mg/Kg	
90147	SW06001, SW06901, SW00037EB	CALCIUM	43.2	ug/L	U
		SODIUM	49.7	ug/L	U
		ZINC	2.1	ug/L	U
	SD06001, SD06001S, SD06001D, SD05901	ALUMINUM	2.51	mg/Kg	
		CALCIUM	11.7	mg/Kg	
		SODIUM	6.9	mg/Kg	
		ZINC	0.37	mg/Kg	

TABLE 4 - 16

DISSOLVED METALS DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90074	MW00003FB, MW00011EB, MW06601	COPPER	6.40	ug/L	
		SODIUM	43.30	ug/L	U
		ZINC	2.90	ug/L	
	MW00003FB, MW00011EB, MW06601	VANADIUM	-3.8	ug/L	UJ
90075	MW00012EB, MW04101, MW04201, MW04501, MW04501RP, MW04501MD, MW04501MS, MW05201, MW05301, MW05801, MW05901	IRON	8.30	ug/L	
		LEAD	2.20	ug/L	U
		SODIUM	43.30	ug/L	U
	MW00012EB, MW04101, MW04201 MW04501, MW04501RP, MW04501MD, MW04501MS, MW05201, MW05301, MW05801, MW05901	VANADIUM	-3.3	ug/L	J/UJ
90077	MW0013EB, MW00701, MW01001, MW03501, MW03501D, MW03501S, MW03601, MW03901, MW04001, MW04601, MW04701, MW04801, MW04901, MW05001, MW05401, MW05401RP, MW05401RPD, MW05401RPS, MW08001, MW08101	ANTIMONY	-18.0	ug/L	J/UJ
		BERYLLIUM	-0.43	ug/L	J/UJ
		THALLIUM	-1.34	ug/L	J/UJ
90081	MW0016EB, MW05501, MW05601, MW05601R MW05601S, MW05601D, MW05701, MW06001, MW06301, MW06401, MW06501, MW07301, MW07401, MW07501	ALUMINUM	35.90	ug/L	U
		ANTIMONY	21.60	ug/L	U
		CHROMIUM	2.51	ug/L	U
		IRON	10.70	ug/L	U
		MAGNESIUM	31.00	ug/L	
	SODIUM	123.20	ug/L	U	
	MW0016EB, MW05501, MW05601, MW05601R MW05601S, MW05601D, MW05701, MW06001, MW06301, MW06401, MW06501, MW07301, MW07401, MW07501	CADMIUM	-3.5	ug/L	J/UJ
		LEAD	-1.08	ug/L	J/UJ
90084	MW00017EB, MW00801, MW01101, MW01101S, MW01101D, MW04301, MW04401, MW06801, MW06801S, MW06801D, MW06901, MW06901RP, MW07801, MW07901, MW07901	COPPER	2.40	ug/L	U
		SODIUM	41.40	ug/L	
90087	MW00018EB, MW00601, MW00601S, MW0060 MW03701, MW03801, MW03801S, MW03801D	ANTIMONY	21.70	ug/L	U
		CHROMIUM	3.10	ug/L	U
		COPPER	2.84	ug/L	U
		LEAD	1.60	ug/L	
		SODIUM	41.70	ug/L	
		VANADIUM	3.85	ug/L	U
90079	MW0014EB, MW00901, MW06101, MW06101M MW06101MSD, MW06201, MW06701, MW0700 MW07101, MW07101RP, MW07201, MW07701, MW08201, MW08301	CALCIUM	41.00	ug/L	U
		SODIUM	27.50	ug/L	U
		ZINC	2.70	ug/L	U

TABLE 4 - 16, CONTINUED

DISSOLVED METALS DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90086	MW00018EB, MW00601, MW03701, MW03801	ANTIMONY	21.70	ug/L	U
		CHROMIUM	3.08	ug/L	U
		COPPER	2.84	ug/L	U
		LEAD	1.55	ug/L	U
		SODIUM	41.70	ug/L	U
		VANADIUM	3.85	ug/L	U
90113	SW00021EB, SW05001, SW05401, SW05401RP	LEAD	0.89	ug/L	U
		SODIUM	52.70	ug/L	U
	SW00021EB, SW05001, SW05401, SW05401RP	CHROMIUM	-2.58	ug/L	UJ
90114	SW00022EB, SW05701	LEAD	0.89	ug/L	U
		SODIUM	52.70	ug/L	U
	SW00022EB, SW05701	CHROMIUM	-2.58	ug/L	UJ
90124	SW00024EB, SW04501, SW04601, SW04701, SW05501	ALUMINUM	32.20	ug/L	U
		COPPER	9.90	ug/L	U
		VANADIUM	2.81	ug/L	U
	SW00024EB, SW04501, SW04601, SW04701, SW05501	MERCURY	-0.14	ug/L	UJ
90110	SW00020EB, SW03401, SW05101, SW05601	LEAD	0.89	ug/L	U
		SODIUM	52.70	ug/L	U
	SW00020EB, SW03401, SW05101, SW05601	CHROMIUM	-2.58	ug/L	UJ
90105	SW00004FB, SW00019EB, SW03501, SW03601, SW03601RP	SODIUM	31.10	ug/L	U
	SW00004FB, SW00019EB, SW03501, SW03601, SW03601RP	ARSENIC	-3.26	ug/L	J/UJ
90119	SW00023EB, SW03801	LEAD	0.89	ug/L	U
		SODIUM	52.70	ug/L	U
	SW00023EB, SW03801	CHROMIUM	-2.58	ug/L	UJ

TABLE 4 - 16, CONTINUED

DISSOLVED METALS DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90130	SW00025EB, SW03701	ALUMINUM	27.80	ug/L	U
		IRON	6.04	ug/L	U
90135	SW00028EB, SW04301, SW04301RP, SW04301RPMS, SW04301RPM	LEAD	1.13	ug/L	
		POTASSIUM	496	ug/L	
		SODIUM	61.2	ug/L	U
	SW00028EB, SW04301, SW04301RP, SW04301RPMS, SW04301RPM	BERYLLIUM	-1.01	ug/L	UJ
	MANGANESE	-2.06	ug/L	UJ	
	VANADIUM	-3.60	ug/L	UJ	
90137	SW00030EB, SW04101, SW04201	LEAD	1.13	ug/L	
		POTASSIUM	496	ug/L	U
		SODIUM	61.2	ug/L	U
	SW00030EB, SW04101, SW04201	BERYLLIUM	-1.01	ug/L	J/UJ
	MANGANESE	-2.06	ug/L	J/UJ	
	VANADIUM	-3.60	ug/L	J/UJ	
90139	SW00033EB, SW04001, SW05801	LEAD	1.13	ug/L	
		POTASSIUM	496	ug/L	U
		SODIUM	61.2	ug/L	U
	SW00033EB, SW04001, SW05801	BERYLLIUM	-1.01	ug/L	UJ
	MANGANESE	-2.06	ug/L	UJ	
	VANADIUM	-3.60	ug/L	UJ	
90142	SW06201, SW06101, SW00035EB	CALCIUM	43.2	ug/L	U
		SODIUM	49.9	ug/L	U
		ZINC	2.1	ug/L	U
90148	SW05901, SW06001, SW00037EB	CALCIUM	43.2	ug/L	U
		SODIUM	49.9	ug/L	U
		ZINC	2.1	ug/L	U

TABLE 4 - 17

**RADIOLOGICAL NUCLIDES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90032	MB*NONE*1	SB00007EB, SB00007TB	Ra-224	42	pci/L	
	MB*NONE*1	SB04002, SB03602, SB0008EB, SB03601	Ac-228	180	pci/Kg	
			Pb-212	40	pci/Kg	
			Pb-214	140	pci/Kg	
			Ra-223	54	pci/Kg	
			Ra-224	400	pci/Kg	
			Ra-228	210	pci/Kg	
			Th-232	210	pci/Kg	
U-238	21	pci/Kg				
90029	MB*NONE*1	SB00004EB	Ra-224	42.8	pci/L	
90030	MB*NONE*1	SB00005EB	Ra-224	42.8	pci/L	
90031	MB*NONE*1	SB00006EB	Ra-224	42.8	pci/L	
90026	MB*NONE*1	SB00001FB, SB00001EB	Ra-224	42.8	pci/L	
90027	MB*NONE*1	SB00002EB	Ra-224	42.8	pci/L	
90028	MB*NONE*1	SB00003EB	Ra-224	42.8	pci/L	
90026	MB*NONE*1	SB05001, SB05001RP	Ac-228	180	pci/Kg	
			Bi-210	180	pci/Kg	
			Pb-212	46	pci/Kg	
			Pb-214	140	pci/Kg	
			Ra-223	50	pci/Kg	
			Ra-224	400	pci/Kg	
			Ra-228	200	pci/Kg	
			Th-232	200	pci/Kg	
Tl-208	22	pci/Kg				
90027	MB*NONE*1	SB05002, SB04201, SB04202, SB04601	Ac-228	180	pci/Kg	
			Bi-210	180	pci/Kg	
			Pb-212	46	pci/Kg	
			Pb-214	140	pci/Kg	
			Ra-223	50	pci/Kg	
			Ra-224	400	pci/Kg	
			Ra-228	200	pci/Kg	
			Th-232	200	pci/Kg	
Tl-208	22	pci/Kg				
90028	MB*NONE*1	SB06401, SB07401, SB05601, SB04602, SB08302, SB08301	Ac-228	180	pci/Kg	
			Bi-210	180	pci/Kg	
			Pb-212	46	pci/Kg	
			Pb-214	140	pci/Kg	
			Ra-223	50	pci/Kg	
			Ra-224	400	pci/Kg	
			Ra-228	200	pci/Kg	
			Th-232	200	pci/Kg	
Tl-208	22	pci/Kg				

TABLE 4 - 17, CONTINUED

**RADIOLOGICAL NUCLIDES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90030	MB*NONE*1	SB07402	Ac-228	180	pci/Kg	
			Bi-210	180	pci/Kg	
			Pb-212	46	pci/Kg	
			Pb-214	140	pci/Kg	
			Ra-223	50	pci/Kg	
			Ra-224	400	pci/Kg	
			Ra-228	200	pci/Kg	
			Th-232	200	pci/Kg	
		Tl-208	22	pci/Kg		
90031	MB*NONE*1	SB06402, SB04001	Ac-228	180	pci/Kg	
			Bi-210	180	pci/Kg	
			Pb-212	46	pci/Kg	
			Pb-214	140	pci/Kg	
			Ra-223	50	pci/Kg	
			Ra-224	400	pci/Kg	
			Ra-228	200	pci/Kg	
			Th-232	200	pci/Kg	
		Tl-208	22	pci/Kg		
90029	MB*NONE*1	SB05802, SB03801, SB03802	Ac-228	180	pci/Kg	
			Bi-210	180	pci/Kg	
			Pb-212	46	pci/Kg	
			Pb-214	140	pci/Kg	
			Ra-223	50	pci/Kg	
			Ra-224	400	pci/Kg	
			Ra-228	200	pci/Kg	
			Th-232	200	pci/Kg	
		Tl-208	22	pci/Kg		
90065	MB*NONE*1	SB00009EB, SB00009FB,	Ra-224	9.9	pci/L	
90067	MB*NONE*1	SB00010EB	Ra-224	9.9	pci/L	
90065, 67	MB*NONE*1	SB06801RP, SB06801, SB06403, SB05701, SB06501	Pb-212	32	pci/Kg	
			Pb-214	220	pci/Kg	
			Ra-224	520	pci/Kg	
			Th-234	550	pci/Kg	
90072	MB*NONE*1	MW00003FB, MW00011EB, MW06601, MW07601	NO CONTAMINATION FOUND			
90073	MB*NONE*1	MW00012EB, MW05201, MW05301, MW04501, MW05801, MW05901, MW04101, MW04201	NO CONTAMINATION FOUND			
90076	MB*NONE*1	MW04601, MW03901, MW04001, MW08001, MW08101, MW01001, MW00701, MW03501, MW03601, MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP, MW00013EB	NO CONTAMINATION FOUND			
90078	MB*NONE*1	MW08301, MW00901, MW07001, MW07101, MW07101RP, MW07201, MW06101, MW06201, MW06701, MW07701, MW08201, MW00014EB	NO CONTAMINATION FOUND			

TABLE 4 - 17, CONTINUED

**RADIOLOGICAL NUCLIDES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
90082	MB*NONE*1	MW00016EB, MW05601, MW05601RP, MW06301, MW06401, MW07301, MW07401, MW05702, MW06001, MW06501, MW07501, MW05501	Ti-205	142	pci/L	
90083	MB*NONE*1	MW00017EB, MW07901, MW07901RP, MW01101, MW07801, MW06801, MW04401, MW04301, MW06901, MW06901RP, MW00801	NO CONTAMINATION FOUND			
90086	MB*NONE*1	MW00018EB, MW00601, MW03701 MW03801	NO CONTAMINATION FOUND			
90100	MB*NONE*1	SD05301, SD05201, SD04801, SD03601, SD03601RP, SD03501	Bi-212 Pb-212 Th-228 Ti-208	5610 27100 2050000 1340	pci/Kg pci/Kg pci/Kg pci/Kg	R R R R
90109	MB*NONE*1	SD03401, SD05101, SD05601	Bi-212 Pb-212 Th-228 Ti-208	5610 27100 2050000 1340	pci/Kg pci/Kg pci/Kg pci/Kg	R R R R
90115	MB*NC2AJD4*1	SW00021EB, SW05401, SW05401RP, SW05001	NO CONTAMINATION FOUND			
90118	MB*NC2AJD4*1	SW00022EB, SW05701	NO CONTAMINATION FOUND			
90120	MB*NC2AJD4*1	SW00023EB	NO CONTAMINATION FOUND			
90100	MB*NC2AJD4*1	SW00019EB, SW00004FB, SW03601, SW03601RP	NO CONTAMINATION FOUND			
90109	MB*NC2AJD4*1	SW00020EB, SW03401, SW05101, SW05601	NO CONTAMINATION FOUND			
90120	MB*NC2AJD4*1	SW03601	NO CONTAMINATION FOUND			
90115	MS*NONE*1	SD04901, SD05001, SD05401, SD05401RP	Bi-212 Bi-214 Pb-212 Pb-214 Ti-208	6060 4510 63800 48200 2220	pci/Kg pci/Kg pci/Kg pci/Kg pci/Kg	R R R R R
90123	MB*NONE*1	SW04501, SW05501, SW04601, SW04701, SW00024EB	Ti-208	1.7	pci/L	
	MB*NONE*2	SW04501, SW05501, SW04601, SW04701, SW00024EB	NO CONTAMINATION FOUND			
90129	MB*NONE*1	SW03701, SW00025EB	Ti-208	1.7	pci/L	
	MB*NONE*2	SW03701, SW00025EB	NO CONTAMINATION FOUND			
90133	MB*NONE*1	SW00028EB, SW04301, SW04301RP	Ti-208	1.7	pci/L	
	MB*NONE*2	SW00028EB, SW04301, SW04301RP	NO CONTAMINATION FOUND			
90136	MB*NONE*1	SW00030EB, SW04101, SW04201	Ti-208	1.7	pci/L	
	MB*NONE*2	SW00030EB, SW04101, SW04201	NO CONTAMINATION FOUND			
90138	MB*NONE*1	SW00033EB, SW04001, SW05801	Ti-208	1.7	pci/L	
	MB*NONE*2	SW00033EB, SW04001, SW05801	NO CONTAMINATION FOUND			
90141	MB*NONE*1	SW06101, SW06201, SW00035EB	Ti-208	1.7	pci/L	
	MB*NONE*2	SW06101, SW06201, SW00035EB	NO CONTAMINATION FOUND			
90147	MB*NONE*1	SW06001, SW05901, SW00037EB	Ti-208	1.7	pci/L	
	MB*NONE*2	SW06001, SW05901, SW00037EB	NO CONTAMINATION FOUND			

TABLE 4 - 17, CONTINUED

**RADIOLOGICAL NUCLIDES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90123	MB*NONE*1	SD05501, SD04701, SD04601	Pb-212	127	pci/Kg	
			Pb-214	146	pci/Kg	
			Tl-208	61.5	pci/Kg	
	MB*NONE*1	SD04401, SD04501	Bi-212	6060	pci/Kg	R
			Bi-214	4510	pci/Kg	R
			Pb-212	63800	pci/Kg	R
			Pb-214	48200	pci/Kg	R
			Tl-208	2220	pci/Kg	R
90118	MB*NONE*1	SD05701	Bi-212	5610	pci/Kg	R
			Pb-212	27100	pci/Kg	R
			Th-228	2050000	pci/Kg	R
			Tl-208	1340	pci/Kg	R
90120	MB*NONE*1	SD03801	Bi-212	5610	pci/Kg	R
			Pb-212	27100	pci/Kg	R
			Th-228	2050000	pci/Kg	R
			Tl-208	1340	pci/Kg	R
90129	MB*NONE*1	SD03701, SD03901	Pb-212	127	pci/Kg	
			Pb-214	146	pci/Kg	
			Tl-208	61.5	pci/Kg	
90133	MB*NONE*1	SD04301, SD04301RP	Pb-212	127	pci/Kg	
			Pb-214	146	pci/Kg	
			Tl-208	61.5	pci/Kg	
90136	MB*NONE*1	SD04101	Pb-212	127	pci/Kg	
			Pb-214	146	pci/Kg	
			Tl-208	61.5	pci/Kg	
	MB*NONE*1	SD04201	Bi-214	162	pci/Kg	
			Pb-212	90.1	pci/Kg	
			MB*NONE*1	SD04001	Pb-212	127
Pb-214	146	pci/Kg				
Tl-208	61.5	pci/Kg				
			Bi-214	162	pci/Kg	
			Pb-212	90.1	pci/Kg	
90141	MB*NONE*1	SD06101, SD06201	Bi-214	162	pci/Kg	
			Pb-212	90.1	pci/Kg	
90147	MB*NONE*1	SD06001, SD05901	Bi-214	162	pci/Kg	
			Pb-212	90.1	pci/Kg	

- UJ Validation Qualifier. If a sample result for the blank contaminant was less than the sample IDL when the absolute value of the negative blank value was greater than the IDL, the sample result for the blank contaminant was amended as estimated non-detected.
- J Validation Qualifier. If a sample result for the blank contaminant was greater than the IDL and less than 10 times the blank value, when the absolute of the negative blank value is greater than the IDL the result was amended as estimated at the laboratory value.

4.1 Trip Blanks

Trip blanks contained organic free deionized water from the laboratory and consisted of sample bottles which were similar to the environmental sample containers. The trip blanks were prepared and packaged at the laboratory prior to the sampling event and traveled with the sample bottles to the site. The trip blank bottles were not opened at the site or anytime prior to laboratory analysis.

The two (2) volatile organic compounds which were detected in one (1) or more of the trip blank samples are listed below:.

- GC/MS Volatiles (Table 4-1)

methylene chloride
acetone

The methylene chloride and acetone could be attributed to laboratory contamination. Some of the field sample analytical results required qualification due to methylene chloride and acetone trip blank contamination. Based on the assessment of the trip blanks for representativeness, the analytical data was acceptable for each SDG.

4.2 Field Blanks

The field blank is a sample of deionized water used during equipment decontamination. The field blank was opened to ambient field conditions. Semivolatile compounds and pesticide/PCB compounds were not detected in the field blank samples.

Target analytes detected in the field blank samples consisted of:

- GC/MS Volatiles (Table 4-2)

methylene chloride
acetone

- Total Metals/Cyanide (Table 4-5)

barium	calcium	copper
iron	selenium	silver
chromium	sodium	vanadium
zinc		

- Dissolved Metals (Table 4-6)

copper	zinc	sodium
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The volatile compounds methylene chloride and acetone could be attributed to laboratory contamination. The inorganic analytes could be attributed to the water source, the water treatment system that was used to make the deionized water or laboratory artifacts.

Because target compounds were detected in the field blanks, total metals results required qualification. However, all the data was considered usable. Therefore, based on the assessment of field blanks for representativeness, the analytical data was acceptable for each SDG.

4.3 Equipment Rinseate Blanks

The equipment rinseate blank was collected by rinsing a piece of sampling equipment with organic free deionized water. A sample of this water was collected and placed in sample containers similar to those used for the environmental samples. Pesticides/PCBs were not detected in equipment rinseate blank samples (Table 4-9). Target analytes detected in the equipment rinseate blank samples consisted of:

- Volatiles (Table 4-7)

chloromethane
methylene chloride
acetone
2-butanone
- Semivolatiles (Table 4-8)

di-n-butylphthalate
bis(2-ethylhexyl)phthalate
di-n-octylphthalate
- Total Metals/Cyanide (Table 4-10)

lead	cobalt	magnesium	chromium
barium	cyanide	sodium	beryllium
copper	calcium	zinc	
iron	aluminum	arsenic	
- Dissolved Metals (Table 4-11)

lead	chromium	zinc	aluminum
barium	sodium	magnesium	beryllium
copper	manganese	antimony	cadmium
iron	iron	mercury	nickel

The volatile compounds methylene chloride, acetone and 2-butanone can be attributed to laboratory and/or field contamination. Chloromethane is a heavy gas and very volatile, and should not be expected to be found in a rinseate blank. Therefore, the chloromethane contamination could be attributed to laboratory contamination (i.e. contaminated purge vessels, etc.) The semi-volatile compounds di-n-butylphthalate, di-n-octylphthalate, and bis(2-ethylhexyl)phthalate, detected in the equipment rinseate blanks can be attributed to random laboratory and/or field contamination. The metals analytes may be attributed to the water source, the water treatment system that was used to make the deionized water or laboratory artifacts.

Because target compounds were detected in the equipment rinseate blanks, volatile and semivolatile results required qualification. Metals target analytes were detected in some of the equipment rinseate blanks; however, the analytical results were not qualified per ABB ES. Therefore, based on assessment of equipment rinseate blanks for representativeness, the analytical data was acceptable for each SDG.

4.4 Method Blanks

The method blanks were a sample of deionized water that is prepared by the laboratory at the time of analysis. Method blanks undergo the same analytical process as the corresponding environmental samples and associated field blanks. The purpose of the method blank is to assess the potential for target analytes to "contaminate" the sample during analysis. Pesticides target compounds were not detected in method blank samples (Table 4-14). Target analytes detected in the method blank samples consisted of:

- GC/MS Volatiles (Table 4-12)
 - acetone
 - methylene chloride
 - 2-butanone
 - 4-methyl-2-pentanone
 - 2-hexanone
 - dichloroethene
 - benzene

- Semivolatile Organics (Table 4-13)
 - di-n-butylphthalate
 - bis(2-ethylhexyl)phthalate
 - di-ethylphthalate

- Total Metals/Cyanide (Table 4-15)

aluminum	mercury	thallium
barium	magnesium	cyanide
beryllium	manganese	selenium
calcium	copper	cadmium
arsenic	iron	vanadium
sodium	zinc	silver
potassium	lead	

• Dissolved Metals (Table 4-16)

aluminum	mercury	thallium
antimony	magnesium	vanadium
beryllium	manganese	chromium
copper	arsenic	iron
sodium	zinc	silver
potassium	lead	

• Radiological Nuclides (Table 4-17)

Radium-224	Actinium-228
Lead-212	Lead-214
Radium-223	Radium-228
Thorium-232	Uranium-238
Bismuth-210	Thallium-208
Thorium-228	Bismuth-212
Bismuth-214	

The detectable acetone, methylene chloride, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, bis(2-ethylhexyl)phthalate, di-ethylphthalate, and di-n-butylphthalate results are attributed to laboratory contamination. Dichloroethene and benzene are unusual method blank contaminants. Their presence could be attributed to dirty glassware and/or contaminated instrumentation lines. The inorganic analytes may be attributed to the water source, the water treatment system that was used to make the deionized water or random contamination. Further, some of the detected concentrations of inorganic analytes were negative, which indicates instrumentation anomalies.

The radiological nuclides which were detected in the associated method blanks may be attributed to laboratory contamination, i.e. dirty counting containers or contaminated acids. The contamination for the method blanks associated with sediment samples in SDGs 90100, 90109, 90115, 90118, 90120, and 901023 was of a sufficient magnitude to warrant rejection of sample results. The interference which was caused by the contamination of the method blanks with the nuclides bismuth-212, bismuth-214, lead-212, lead-214, thorium-228, and thallium-208 made accurate counting of other nuclei difficult. The results for the above mentioned nuclides, non-detect and positive, were rejected in fifteen (15) field samples and two (2) field duplicate QC samples. This constituted a rejection of 6.1% of the QC water matrix data points and 51.7% of the sediment matrix data points. The completion goal for the QC water matrix for the radiological fraction fell slightly below the 96% goal at 93.9%. The completion goal for the sediment matrix for the radiological fraction fell below the completion goal, at 48.3%. In turn, this resulted in the overall completion goal for the fraction to fall below the 95% goal, at 88.4%. However, all data points for the radiological fraction for the groundwater, surface water, and soil matrices were acceptable. These matrices exceeded the completion goal of 96%. Because target compounds/analytes/nuclides were detected in some of the method blanks, some of the analytical results were qualified/rejected. However, based on assessment of method blanks for representativeness, the analytical data was acceptable for each SDG for all analytical fractions and matrices, with the exception of the radiological QC water and sediment matrices.

5.0 COMPARABILITY

Comparability is a qualitative measure designed to express the confidence with which one data set may be compared to another. The analytical samples were collected and transported to the chemical analytical laboratory in accordance with standard procedures and were analyzed in conformance with acceptable USEPA procedures (Refer to Table 5-1 below). The analytical data are reported in standard units (micrograms per liter, micrograms per kilogram, etc.).

The methods used to collect the environmental samples and the methods used to analyze the samples should assure comparability of the analytical data.

TABLE 5-1
USEPA Procedures (CLP/SW-846/EPA-EMSL Methodologies)

U.S. EPA Method	Description
CLP SOW OLM01.8	CLP TCL Volatile Organics without TICs
CLP SOW OLM01.8	CLP TCL Semivolatile Organics without TICs
CLP SOW OLM01.8	CLP TCL Pesticides/PCBs
CLP SOW ILM02.1	CLP TAL Metals and Cyanide
S3550/9071/418.1	SW-846 Total Petroleum Hydrocarbons
EPA 901.1	EPA-EMSL Gamma Scan

6.0 COMPLETENESS

Completeness is the quantitative measure of the amount of data obtained from a measurement process compared with the amount expected to be obtained under the conditions of measurement. The completeness goal for laboratory analysis for this project was 96 percent useable data. Unusable analytical data are those results reported by the laboratory but rejected during the data validation process. A summary of the completeness goal for NAS Jacksonville RI/FS for OU-1 is provided in Table 6-1. For more detailed completeness goal tables, please refer to Appendix C.

TABLE 6-1
COMPLETION GOAL (>96%)

	<u>QC</u>	<u>MW</u>	<u>SB</u>	<u>SW</u>	<u>SD</u>	<u>CW</u>	<u>OV</u>
V	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SV	100.0	100.0	100.0	100.0	100.0	NA	100.0
P/P	99.9	100.0	99.9	100.0	100.0	NA	99.9
T.M.	99.8	99.5	98.3	100.0	99.7	NA	99.5
D.M.	100.0	99.9	NA	99.4	NA	NA	99.8
TPH	100.0	NA	NA	100.0	100.0	NA	100.0
RAD	93.9	100.0	100.0	100.0	48.3	NA	88.4

MATRIX KEY

QC = QC Samples
 MW = Groundwater Samples
 SB = Surface Soil Samples
 SW = Surface Water Samples
 SD = Sediment Samples
 CW = Cone Penetrometer Water Samples
 OV = Overall

METHOD KEY

V = GC/MS Volatiles
 SV = Semivolatiles
 P/P = Pesticides/PCBs
 TM = Total Metals/Cyanide
 DM = Dissolved Metals
 TPH = Total Petroleum Hydrocarbons
 RAD = Radiological Gamma Scan

All of the analytical data did not meet the 96 percent completeness goal. For each analytical group with rejected data, the following provides a brief narrative that describes the conditions upon which the data were rejected.

Volatiles Some of the positive results reported for several of the target compounds in volatile samples SD05601 from SDG 90109, JXCW07701 and JXCW07801 from SDG 90176 and JXCW09001 from SDG 90195 were "rejected" in favor of results reported from a dilution analysis of the samples because the results from the undiluted analysis were outside the linear range of the calibration curves. The results reported for sample MW07201 were "rejected" in favor of the results reported from the reanalysis of the sample. These actions do not constitute true rejections since viable results were obtained from the dilution analyses or the reanalysis. Therefore, the "rejections" were not counted in the rejection tables and did not affect the completeness results.

Pesticides The positive results reported for the compound Endrin in samples SB05601 and SB07401 were "rejected" and replaced with the higher quantitated value reported as non-detects. These actions do not constitute true rejections since viable non-detect results were obtained. Therefore, the "rejec-

tions" were not counted in the rejection tables and did not affect the completeness results.

Volatiles/Semivolatiles/Pesticides Some sample data points were qualified for initial and/or continuing calibration deficiencies. All results qualified for calibration % RSD and % D deficiencies (J/UJ) are considered to be useable. For the compounds in the GC/MS volatile and semivolatile analyses that did not meet calibration criteria, all positive results are qualified as estimated (J) (%Ds >25%) and all non detect results are qualified as estimated (UJ) (>50% D <90%) due to calibration deficiencies. For the pesticides analyses that did not meet calibration criteria, all positive and non-detect results are qualified as estimated, (J/UJ), for initial calibrations which exceeded the 20% RSD criteria, and for continuing calibrations which exceeded the 25% D criteria due to calibration deficiencies. There was no data rejected for calibration deficiencies in any fraction.

For all other fractions, the conditions upon which data points were rejected were discussed in the appropriate section of this narrative. Although the completion goal was not met for the radiological fraction, all other fractions exceeded the completion goal for the project. Based upon the completion results for all fractions and all matrices, the RI/FS Round 2 for OU1 of NAS Jacksonville exhibited an overall completion of 98.2% useable data obtained.

7.0 PARCC SUMMARY

The purpose of evaluating the quality of the analytical data using the PARCC criteria was to address the qualification of the data in regards to evaluation of the presence, magnitude and characteristics of hazardous substances at NAS Jacksonville RI/FS for OU-1. Overall, the chemical analytical data are acceptable and exceeded the completion goal of 96 percent for all analytical fractions except the radiological nuclides analysis for the sediment sample matrix. Tables 7-1 through 7-6 provides a tabulation of the assessment of PARCC criteria for each SDG for groundwater samples, surface water samples, cone penetrometer water sample, soil samples, sediment samples, and quality control samples, respectively.

**TABLE 7-1
PARCC CRITERIA SUMMARY
GROUNDWATER SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
012EB (90073)	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections
003FB (90072)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90074	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90075	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90076	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90077	ACCEPTABLE	ACCEPTABLE (2) with Rejections	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (2) with Rejections
90078	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90079	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
03501 (90100)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90084	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90081	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90087	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
016E (90082)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
017EB (90083)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

- (1) One (1) metals analyte (antimony) rejected (R) in seven (7) field samples due to recovery <30% in an MS.
- (2) One (1) metals analyte (lead) rejected (R) in one (1) field sample due to recovery <30% in an MS.

**TABLE 7-2
 PARCC CRITERIA SUMMARY
 SURFACE WATER SAMPLES
 NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
03501 (90100)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
016E (90082)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
017EB (90083)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90115	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90120	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90118	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90109	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90133	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90129	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90123	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections
90136	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90138	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90141	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90147	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

(1) One (1) metals analyte (lead) rejected (R) in three (3) field samples due to recovery <30% in an MS.

TABLE 7-2, CONTINUED
PARCC CRITERIA SUMMARY
SURFACE WATER SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
90114	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90124	ACCEPTABLE	ACCEPTABLE (2) with Rejections	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (2) with Rejections
90110	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90113	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90119	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90105	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90130	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90135	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90137	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90139	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90142	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

(2) One (1) metals analyte (lead) rejected (R) in one (1) field samples due to recovery <30% in an MS.

**TABLE 7-3
 PARCC CRITERIA SUMMARY
 CONE PENETROMETER SAMPLES
 NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
90143	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90144	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90176	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90160	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90195	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

**TABLE 7-4
 PARCC CRITERIA SUMMARY
 SOIL SAMPLES
 NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
02EB	ACCEPTABLE	ACCEPTABLE (2) with Rejections	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90026	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
03801	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90065	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90067	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

- (1) One (1) pesticide compound (aldrin) rejected (R) in one (1) field sample due to zero percent (0%) spike recovery.
- (2) One (1) metals analyte (cyanide) rejected (R) in ten (10) field samples due to recovery <30% in an MS.

**TABLE 7-5
PARCC CRITERIA SUMMARY
SEDIMENT SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
03501 (90100)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	UNACCEPTABLE (1) with Rejections
016E (90082)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
017EB (90083)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90115	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	UNACCEPTABLE (1) with Rejections
90120	ACCEPTABLE	ACCEPTABLE (2) with Rejections	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE (1)(2) with Rejections
90118	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	UNACCEPTABLE (1) with Rejections
90109	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	UNACCEPTABLE (1) with Rejections
90133	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90129	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90123	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	UNACCEPTABLE (1) with Rejections
90136	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90138	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90141	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90147	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

- (1) Radiological nuclides rejected (R) in fifteen (15) field samples due to method blank contamination.
- (2) One (1) metals analyte (antimony) rejected (R) in two (2) field QC samples due to recovery <30% in an MS.

**TABLE 7-6
PARCC CRITERIA SUMMARY
QUALITY CONTROL SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
02EB	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90026	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
03801	ACCEPTABLE	ACCEPTABLE (2) with Rejections	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (2) with Rejections
90065	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90067	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
012EB (90073)	ACCEPTABLE	ACCEPTABLE (3) with Rejections	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (3) with Rejections
003FB (90072)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90076	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90078	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
03501 (90100)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE (1) with Rejections
016E (90082)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
017EB (90083)	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90115	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE (1) with Rejections
90120	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE (1) with Rejections
90118	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE (1) with Rejections
90109	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE (1) with Rejections
90133	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90129	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90123	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE (1) with Rejections	ACCEPTABLE	ACCEPTABLE (1) with Rejections
90143	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90144	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90160	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90136	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90138	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90141	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90147	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

TABLE 7-6, CONTINUED
PARCC CRITERIA SUMMARY
QUALITY CONTROL SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
90074	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90075	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90077	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90081	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90084	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90087	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90079	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90114	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90124	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90110	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90113	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90119	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90105	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90130	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90135	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90137	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90139	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90142	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90176	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90160	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
90195	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

- (1) Radiological nuclides rejected (R) in two (2) QC field duplicates due to method blank contamination.
- (2) One (1) pesticide compound (aldrin) rejected (R) in one (1) QC field duplicate due to zero percent (0%) spike recovery.
- (3) One (1) metals analyte (antimony) rejected (R) in two (2) field QC samples due to recovery <30% in an MS.

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Geraghty & Miller, Inc., 1991b. Navy Installation Restoration Program Plan, Naval Air Station, Jacksonville, Florida. Volume 1: Organization and Planning, Prepared SOUTHNAVFACENGCOM. September.

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USEPA, 1990c., Statement of Work for Inorganic Analysis, Multi-Media, Multi-Concentration, United States Environmental Protection Agency Contracts Laboratory Program, Document No. ILM01.2, March 1990.

APPENDIX A

CALIBRATION SUMMARY

TABLE A - 1

**INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE RI/FS FOR OU-1**

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 02EB			SDG 03801	
	ICAL1	CCAL1	CCAL1	ICAL1	CCAL1
DATE	052593	060893	0060893	052593	061093
INSTRUMENT ID	INCOS50-2	INCOS50-2	INCOS50-1	INCOS50-2	INCOS50-2
CALIBRATION CRITERIA	RRF/RSD	RRF/%D	RRF/%D	RRF/RSD	RRF/%D
2-BUTANONE	33.3	32.1		33.3	
BROMOMETHANE		29.5			34.5
CHLOROETHANE		45.6			46.2
ACETONE		34.4	42.9		
2-HEXANONE		29.0			

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 02EB

ICAL1: NONE

CCAL1: SB0002EB, SB0002TB, SB0003TB, SB0003EB

CCAL1: SB06401, SB05002, SB06401MS, SB06401MSD, SB04201, SB04202,
SB04601, SB07401, SB05601, SB04602, SB08302, SB08301

SDG 03801

ICAL1: NONE

CCAL1: SB00004EB, SB00004TB, SB00005EB, SB00005TB, SB00006EB,
SB00006TB, SB00007EB, SB00007TB, SB00008EB

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE RI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i>	SDG 90026				
<i>CCAL = CONTINUING CALIBRATION = %D</i>	CCAL1	CCAL2	ICAL2	CCAL1	ICAL3
DATE	060293	060393	052893	061193	061093
INSTRUMENT ID	FINNZ	FINNZ	FINNZ	FINNZ	INCOS50-2
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/RSD	RRF/%D	RRF/%D
1,1,2,2-TETRACHLOROETHANE	0.495	0.473		26.5	0.333/35.3
BROMOMETHANE			34.2		
ACETONE				38.6	34.0
2-HEXANONE				40.4	
2-BUTANONE		26.7		42.5	
BROMOFORM				29.4	
4-METHYL-2-PENTANONE				35.3	

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90026

CCAL1: SB00001FB, SB00001TB

CCAL2: SB00001EB

ICAL2: NONE

CCAL1: SB05001

ICAL3: NONE

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 90065	SDG 90067		SDG 90072	SDG 90073	
	ICAL1	CCAL1	CCAL2	CCAL1	CCAL1	CCAL2
DATE	072393	072693	072693	080293	080293	080393
INSTRUMENT ID	FINNZ	5100	5100	INCOS50-2	INCOS50-2	INCOS50-2
CALIBRATION CRITERIA	RRF/RSD	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
DIBROMOCHLOROMETHANE	33.5					
CHLOROMETHANE	42.2			29.4	29.4	
CHLOROETHANE				30.9	30.9	30.4
1,1,2,2-TETRACHLOROETHANE	33.8			39.5	39.5	
ACETONE	64.1		31.5	27.8	27.8	43.9
2-HEXANONE	37.3					33.3
2-BUTANONE				25.8	25.8	40.2
BROMOFORM	36.6					
STYRENE	30.7					
BROMOFLUOROBENZENE	30.3					
1,2-DICHLOROETHANE-D4		26.2	26.5			
4-METHYL-2-PENTANONE						30.9

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90065

ICAL1: SB06801, SB06801MS, SB06801MD, SB06801RP, SB06403, SB00009TB,
SB00009EB, SB00002FB

SDG 90067

CCAL1: SB0001TB, SSB0001EB
CCAL2: SB05701, SB06501

SDG 90072

CCAL1: MW0003FB, MW0011EB, MW0011TB, MW6601, MW7601

SDG 90073

CCAL1: MW0012TB, MW0012EB, MW5201, MW5301, MW4501, MW4501RP
CCAL2: MW4501MW, MW4501MSD, MW5801, MW5901, MW4101, MW4201

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 90076	SDG 90078		SDG 03501		
	ICAL1	ICAL1	CCAL1	CCAL2	ICAL1	CCAL1
DATE	072993	072993	080793	082793	080493	082393
INSTRUMENT ID	5100	5100	5100	5100	INCOS 50-1	INCOS 50-2
CALIBRATION CRITERIA	RRF/RSD	RRF/RSD	RRF/%D	RRF/%D	RRF/RSD	RRF/%D
CHLOROMETHANE				-25.5	40.4	40.8
VINYL CHLORIDE				-27.9		
ACETONE	31.0	31.0	31.8			
2-HEXANONE			28.8			
2-BUTANONE			27.9			

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90076

ICAL1: NONE

SDG 90078

ICAL1: NONE

CCAL1: MW00014TB, MW00014EB, MW08201, MW08301, MW00901, MW07001,
MW07101, MW07101RP, MW07201, MW06101, MW06101MS, MW06101MSD,
MW06201, MW06701, MW07701

CCAL2: MW07201RE

SDG 03501

ICAL1: NONE

CCAL1: SW00019TB, SB00019EB, SW00004FB, SW03601, SW03601MS,
SW03601MSD, SW03601RP, SW03501

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD	SDG 90082	SDG 90083 (017EB)			SDG 90115	
CCAL = CONTINUING CALIBRATION = %D	CCAL1	CCAL1	CCAL2	CCAL3	ICAL1	CCAL1
DATE	081493	080993	081093	081293	090193	090693
INSTRUMENT ID	5100	INCOS 50-2	INCOS 50-2	INCOS 50-2	FINNZ	FINNZ
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/RSD	RRF/%D
CHLOROMETHANE				38.2		
ACETONE	-29.6	44.7	44.7	40.5		-37.0
2-HEXANONE		32.9	32.0	40.2		
2-BUTANONE		42.5	40.5	54.7		-28.8
1,1-DICHLOROETHANE				29.7		
1,2-DICHLOROETHANE		28.4	32.7	26.4		
4-METHYL-2-PENTANONE		33.4	32.9	42.9		
1,2-DICHLOROETHANE-d4		30.9	35.9	28.4		
1,1,2,2-TETRACHLOROETHANE					0.481	0.482

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90082

CCAL1: MW05601RP, MW05601MS, MW05601MSD, MW06301, MW06401, MW07301,
MW06501, MW07501, MW05501

SDG 90083

CCAL1: MW0017TB, MW0017EB, MW7901
CCAL2: MW7901RP, MW1101, MW7801, MW6801, MW4401, MW4301, MW6901,
MW6901RP, MW0801, MW0018EB, MW0601, MW03701, MW03801
CCAL3: MW0018TB, MW0601MS, MW0601MSD

SDG 90115

ICAL1: NONE
CCAL1: SW00021TB, SW00021EB, SW05401RP, SW05401, SW05001

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 90120			SDG 90118		
	ICAL1	CCAL1	CCAL2	ICAL1	CCAL1	CCAL2
DATE	090193	090393	090993	090193	090793	090393
INSTRUMENT ID	FINNZ	FINNZ	FINNZ	FINNZ	FINNZ	FINNZ
CALIBRATION CRITERIA	RRF/RSD	RRF/%D	RRF/%D	RRF/RSD	RRF/%D	RRF/%D
CHLOROMETHANE		29.8				29.8
ACETONE					-26.1	
1,1,2,2-TETRACHLOROETHANE	0.481		0.445	0.481	0.467	

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90120

ICAL1: NONE

CCAL1: SD03801

CCAL2: SW00023EB, SW03801, SW00023TB

SDG 90118

ICAL1: NONE

CCAL1: SW00022TB, SW00022EB, SW05701

CCAL2: SD05701

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 90109				SDG 90133	
	ICAL1	CCAL1	CCAL2	CCAL3	ICAL1	CCAL1
DATE	090193	090493	090593	090393	090193	091093
INSTRUMENT ID	FINNZ	FINNZ	FINNZ	FINNZ	FINNZ	FINNZ
CALIBRATION CRITERIA	RRF/RSD	RRF/%D	RRF/%D	RRF/%D	RRF/RSD	RRF/%D
CHLOROMETHANE				29.8		
2-BUTANONE			-30.9			
ACETONE			-50.0			
1,1,2,2-TETRACHLOROETHANE	0.481	0.487	0.445		0.481	0.429

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90119

ICAL1: NONE

CCAL1: SW00020EB, SW03401, SW05101, SW05601

CCAL2: SW00020TB

CCAL3: SD03401, SD05601, SD05101, SD05601DL

SDG 90133

ICAL1: NONE

CCAL1: SW00027TB, SW00028EB, SW04301, SW04301RP, SW04301MS, SW04301MSD

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 90129			SDG 90123	
	ICAL1	CCAL1	CCAL2	ICAL1	CCAL1
DATE	090193	090993	091093	090193	090793
INSTRUMENT ID	FINNZ	FINNZ	FINNZ	FINNZ	FINNZ
CALIBRATION CRITERIA	RRF/RSD	RRF/%D	RRF/%D	RRF/RSD	RRF/%D
CHLOROMETHANE			-28.2		
ACETONE					-26.1
1,1,2,2-TETRACHLOROETHANE	0.481	0.445		0.481	0.479

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90129

ICAL1: NONE

CCAL1: SW00025EB, SW00026TB, SW03701

CCAL2: SD03901

SDG 90123

ICAL1: NONE

CCAL1: SW04501, SW05501, SW00024TB, SW04601, SW04701, SW00024EB

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE FI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 90144		SDG 90143		
	ICAL1	CCAL1	ICAL1	CCAL1	CCAL2
DATE	090193	091893	090193	091793	091893
INSTRUMENT ID	FINNZ	FINNZ	FINNZ	FINNZ	FINNZ
CALIBRATION CRITERIA	RRF/RSD	RRF/%D	RRF/RSD	RRF/%D	RRF/%D
BROMOFORM		25.6			
ACETONE				29.4	
1,1,2,2-TETRACHLOROETHANE	0.481	0.433	0.481		0.477

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90144

ICAL1: NONE

CCAL1: CW01401, CW01402, CW01501, CW01502, CW01602, CW00036EB,
CW00032TB

SDG 90143

ICAL1: NONE

CCAL1: CW01601, CW01701, CW01702, CW01702RP, CW01702MS, CW01702MSD,
CW00034EB

CCAL2: CW00031TB

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS KAC SONVILLE FI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i> <i>CCAL = CONTINUING CALIBRATION = %D</i>	SDG 90138		SDG 90141
	CCAL1	CCAL2	CCAL1
DATE	091093	091093	091693
INSTRUMENT ID	FINNZ	FINNZ	FINNZ
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D
CHLOROMETHANE	-28.2		
BROMOFORM		30.0	25.6

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90138

CCAL1: SD04001, SD05801

CCAL2: SW00033EB, SW04001, SW00029TB, SW05801

SDG 90141

CCAL1: SW06101, SW06201, SW00030TB, SW00035EB

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE FI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i> <i>CCAL = CONTINUING CALIBRATION = %</i>	SDG 90160	SDG 90176	
	CCAL1	CCAL1	CCAL2
DATE	101093	101993	102193
INSTRUMENT ID	FINNZ	FINNZ	FINNZ
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D
CHLOROMETHANE	-29.0	-30.6	-34.5
BROMOFORM	35.3		

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90160

CCAL1: JXCW00034TB, JXCW00046EB, JXCW04402, JXCW04402MS, JXCW04402MSD

SDG 90176

CCAL1: JXCW07801

CCAL2: JXCW07801DL, JXCW05102

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE FI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i> <i>CCAL = CONTINUING CALIBRATION = %D</i>	SDG 90195			
	ICAL1	ICAL2	CCAL1	CCAL2
DATE	102693	111493	110493	111593
INSTRUMENT ID	FINNZ	FINNZ	FINNZ	FINNZ
CALIBRATION CRITERIA	RRF/%RSD	RRF/%RSD	RRF/%D	RRF/%D
CHLOROMETHANE			25.2	
1,1,1-TETRACHLOROETHANE	0.480	0.352	0.434	0.351
ACETONE				-25.7

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90195

ICAL1: NONE

ICAL2: NONE

CCAL1: JXCW00071EB, JXCW09001, JXCW09001MS, JXCW09001MSD,
JXCW00037TB

CCAL2: JXCW09001DL

TABLE A - 2

**INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1**

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %	SDG 02EB		SDG 03801	SDG 90026	
	CCAL1	CCAL2	CCAL1	CCAL1	CCAL2
DATE	061093	061093	061693	061493	061693
INSTRUMENT ID	EXTR03	EXTR03	EXTR03	FINY	FINY
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
4-NITROANILINE	27.3	41.0			27.3
2,2-OXYBIS(1-CHLOROPROPANE)			26.4		
DIBENZO(A,H)ANTHRACENE				-32.4	
BENZO(G,H,I)PERYLENE				-26.4	
2,4,6-TRIBROMOPHENOL			27.1		

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 02EB

CCAL1: SB00002EB, SB00003EB

CCAL2: SB05002, SB04201, SB04202, SB04602, SB08302, SB04601,
SBB06401, SB06401MS, SB06401MSD, SB05601, SB08301, SB07401

SDG 03801

CCAL1: SB00004EB, SB00005EB, SB00006EB, SB00007EB, SB00008EB,
SB05602, SB03802, SB07402, SB06402, SB04001, SB04002, SB03602,
SB03601, SB03601MS, SB03601MSD

SDG 90026

CCAL1: SB05001, SB05001MS, SB05001MSD, SB05001RP
CCAL2: SB00001FB, SB00001EB

TABLE A - 2, CONTINUED

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %	SDG 90065		SDG 90067	SDG 90072	SDG 90076	SDG 90078	
	CCAL1	CCAL2	CCAL2	CCAL1	CCAL1	CCAL1	CCAL2
DATE	080393	080493	080493	080493	081793	081993	082093
INSTRUMENT ID	FINNZ	FINNZ	FINNZ	EXTR04	INCOS-XL	INCOS-XL	INCOS-XL
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
2,4-DINITROPHENOL	37.9				30.7		
4-NITROPHENOL	28.2				39.8		28.8
4-NITROANILINE	34.2	27.2	27.2	66.9	41.9		
2,2'-OXYBIS(1-CHLOROPROPANE)				31.9			
PENTACHLOROPHENOL				34.8	25.6	25.6	28.8
DI-N-OCTYLPHTHALATE				29.6		-30.6	
BENZO(K)FLUORANTHENE						-38.5	
BENZO(G,H,I)PERYLENE							28.0

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90065

CCAL1: SB06801, SB06801MS, SB06801MSD, SB06801RP, SB06403

CCAL2: SB00009EB, SB00009FB

SDG 90067

CCAL1: SB05701, SB06501, SB00001EB

SDG 90072

CCAL1: MW00003FB, MW00011EB, MW06601, MW07601

SDG 90076

CCAL1: MW00013EB, MW04601, MW03901, MW04001, MW08001, MW08101,

MW01001, MW00701, MW03501

SDG 90078

CCAL1: MW00014EB, MW08201, MW08301, MW00901, MW07001, MW07101,

MW07101RP, MW07201, MW06201, MW06701

CCAL2: MW06101, MW06101MS, MW06101MSD, MW07701

TABLE A - 2, CONTINUED

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %	SDG 90100 (03501)		SDG 90082			SDG 90083 (0017E)	
	CCAL1	CCAL2	CCAL1	CCAL2	CCAL3	CCAL1	CCAL2
DATE	090293	090593	082493	082593	081393	081493	081593
INSTRUMENT ID	EXTRO4	EXTRO4	INCOS-XL	INCOS-XL	EXTRO4	EXTRO4	EXTRO4
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
3,3-DICHLOROBENZIDINE	30.1		-25.5			39.4	29.7
4,6-DINITRO-2-METHYLPHENOL		28.7					
4-NITROANILINE		41.7				39.4	
TERPHENYL-d4			28.8	25.6			
PENTACHLOROPHENOL				28.7			
3-NITROANILINE						33.5	
2,4-DINITROPHENOL					29.8	28.6	
4-NITROPHENOL						30.6	51.4
BUTYLBENZYLPHTHALATE						35.9	
BIS(2-ETHYLHEXYL)PHTHALATE						44.0	37.0
DI-N-OCTYLPHTHALATE						40.4	
2,4,6-TRIBROMOPHENOL							29.6

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90100 (03501)

CCAL1: SW00019EB, SW00004FB, SW03601, SW03601MS, SW03601MSD,
SW03601RP, SW03501

CCAL2: SD05301, SD05201, SD04801, SD03601, SD03601MS, SD03601MSD,
SD03601RP, SD03501

SDG 90082 (016E)

CCAL1: MW00016EB, MW05601, MW05601RP, MW05601MS, MW05601MSD

CCAL2: MW06401, MW07301, MW07401, MW05701, MW06001, MW06501,
MW07501, MW05501

CCAL3: MW06301

SDG 90083 (017EB)

CCAL1: MW00017EB, MW7901, MW7901RP, MW1101, MW7801, MW6801,

MW4401, MW4301, MW6901, MW6901RP, MW00018EB, MW0601, MW0601MS, MW0601MSD

CCAL2: MW0801, MW3701, MW3801

TABLE A - 2, CONTINUED

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %	SDG 90115		SDG 90120		
	CCAL1	CCAL2	CCAL1	CCAL2	CCAL3
DATE	090393	091293	090793	090893	091193
INSTRUMENT ID	FINY	FINY	FINY	FINY	FINY
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
4,6-DINITRO-2-METHYLPHENOL		41.1	58.1		41.9
4-NITROANILINE	29.2	33.7			48.2
2,4-DINITROPHENOL		61.7	60.2	38.3	64.8
4-NITROPHENOL	27.6	35.2	36.2	33.2	44.7

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90115

CCAL1: SD04901, SD05001, SD05401, SD05401RP

CCAL2: SW00021EB, SW05401RP, SW5401, SW05501

SDG 90120

CCAL1: NONE

CCAL2: SW00023EB, SW03801

CCAL3: SD03801

TABLE A - 2, CONTINUED

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %	SDG 90109			SDG 90118	
	CCAL1	CCAL2	CCAL3	CCAL1	CCAL2
DATE	082893	090393	090793	090793	091193
INSTRUMENT ID	FINY	FINY	FINY	FINY	FINY
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
4,6-DINITRO-2-METHYLPHENOL			58.1	58.1	41.9
4-NITROANILINE	30.8	29.2			48.2
2,4-DINITROPHENOL	28.6		60.2	60.2	64.8
4-NITROPHENOL	48.6	27.6	36.2	36.2	44.7
BENZO(G,H,I)PERYLENE	26.1				

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90109

CCAL1: SW00020EB, SW03401, SW05101, SW05801

CCAL2: SD03401, SD05601

CCAL3: SD05101

SDG 90118

CCAL1: SW05701, SW00022EB

CCAL2: SD05701

TABLE A - 2, CONTINUED

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %	SDG 90129			SDG 90133	
	CCAL1	CCAL2	CCAL3	CCAL1	CCAL2
DATE	090893	090993	091393	091093	091193
INSTRUMENT ID	FINY	FINY	FINY	FINY	FINY
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
4,6-DINITRO-2-METHYLPHENOL		41.1		34.1	
4-NITROANILINE		29.6		33.7	
2,4-DINITROPHENOL	38.3	58.6		43.2	
4-NITROPHENOL	33.2	39.2	29.6	52.3	30.2

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90129

CCAL1: SW03701
CCAL2: SW00025EB
CCAL3: SD03701, SD03901

SDG 90133

CCAL1: SW00028EB, SW04301, SW04301RP, SW04301MS, SW04301MD
CCAL2: SD04301, SD04301RP, SD04301MS, SD04301MSD

TABLE A - 2, CONTINUED

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i>	SDG 90123			SDG 90136	
	<i>CCAL1</i>	<i>CCAL2</i>	<i>CCAL3</i>	<i>CCAL1</i>	<i>CCAL2</i>
<i>CCAL = CONTINUING CALIBRATION = %</i>					
DATE	090893	091193	091293	091093	092393
INSTRUMENT ID	FINY	FINY	FINY	FINY	FINY
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
4,6-DINITRO-2-METHYLPHENOL		41.9	41.1	34.1	
4-NITROANILINE		48.2	33.7	33.7	
2,4-DINITROPHENOL	38.3	64.8	35.2	43.2	
4-NITROPHENOL	33.2	44.7	61.7	52.3	31.7

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90123

CCAL1: SW04501, SW05501, SW04601, SW04701, SW00024EB

CCAL2: SD04401, SD04501, SD05501

CCAL3: SD04701, SD04601

SDG 90136

CCAL1: SW00030EB, SW04101, SW04201

CCAL2: SD04101, SD04201

TABLE A - 2, CONTINUED

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %	SDG 90138		SDG 90141		SDG 90147	
	CCAL1	CCAL2	CCAL1	CCAL2	CCAL1	CCAL2
DATE	091393	092293	091393	092293	092293	092393
INSTRUMENT ID	FINY	FINY	FINY	FINY	FINY	FINY
CALIBRATION CRITERIA	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D	RRF/%D
4-NITROPHENOL	29.6	33.2	29.6	33.2	33.2	31.7

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90138

CCAL1: SW00033EB, SW04001, SW05801

CCAL2: SD04001, SD05801

SDG 90141

CCAL1: SW06101, SW06201, SW00035EB

CCAL2: SD06101, SD06201

SDG 90147

CCAL1: SW06001, SW05901, SW00037EB, SD06001

CCAL2: SD05901

TABLE A - 3

INITIAL AND CONTINUING CALIBRATION
PESTICIDES COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 02EB		SDG 03801	SDG 90072	SDG 90073
	ICAL1	ICAL2	ICAL1	ICAL1	ICAL1
DATE	061593	061893	061893	080693	080693
INSTRUMENT ID	HP5890B1A/B	HP5890XA/B	HP5890XA/B	HP5890B1A/B	HP5890B1A/B
CALIBRATION CRITERIA	RSD	RSD	RSD	RSD	RSD
ALPHA-BHC	27.0/22.2	24.6	24.6	20.7	20.7
GAMMA-BHC (LINDANE)	20.2				
METHOXYCHLOR	23.1	22.2	22.2	21.2/26.1	21.2/26.1

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 02EB

ICAL1: SB00002EB, SB00003EB, SB05002, SB04201, SB04202, SB06401,
SB06401MS, SB06401MSD, SB07401, SB05601, SB04602, SB08302,
SB08301

ICAL2: SB04601

SDG 03801

ICAL1: SB00004EB, SB05602, SB03801, SB03802, SB07402, SB00005EB,
SB06402, SB04001, SB00006EB, SB00007EB, SB04002, SB03602,
SB00008EB, SB03601, SB03601RP

SDG 90072

ICAL1: MW0003FB, MW0011EB, MW6601, MW7601

SDG 90073

ICAL1: MW04101, MW04201, MW04501, MW04501MS, MW04501MSD, MW04501RP,
MW05201, MW05301, MW05801, MW05901, MW0012EB

TABLE A - 3, CONTINUED

INITIAL AND CONTINUING CALIBRATION
 PESTICIDES COMPOUNDS
 NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG 016E		SDG 017EB
	ICAL1	ICAL2	ICAL1
DATE	081893	061893	090493
INSTRUMENT ID	HP5890B1A/B	HP5890B1A/B	HP5890B1A/B
CALIBRATION CRITERIA	RSD	RSD	RSD
ALPHA-BHC			22.9
BETA-BHC		23.3	
HEPTACHLOR	27.3		
METHOXYCHLOR	21.6/27.0	24.0	20.7/20.3

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 016EB

ICAL1: MW00016EB, MW5601, MW5601MS, MW5601MSD, MW5601RP,
 MW6301, MW6401, MW7201

ICAL2: MW7401, MW5701, MW6001, MW6501, MW7501, MW5501

SDG 017EB

ICAL1: MW0014EB, MW0018EB, MW0601, MW0601MS, MW0601MWD, MW0801,
 MW1101, MW3701, MW3801, MW4301, MW4401, MW6801, MW6901, MW6901RP,
 MW7801, MW7901, MW7901RP

APPENDIX B

SERIAL DILUTION SUMMARY

TABLE B - 1

GROUNDWATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SB000FB		SDG 90065
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	NC
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	212.5
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	683.0
CHROMIUM	ug/L	100.0
COBALT	ug/L	NC
COPPER	ug/L	34.1
IRON	ug/L	100.0
LEAD	ug/L	NA
MAGNESIUM	ug/L	NC
MANGANESE	ug/L	100.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	100.0
SODIUM	ug/L	999.9
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90065: SB00009EB, SB00002FB

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW06601		SDG 90072
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	0.1
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	1.5
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	100.0
CALCIUM	ug/L	2.7
CHROMIUM	ug/L	15.4
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	1.1
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.9
MANGANESE	ug/L	19.6
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	3.5
THALLIUM	ug/L	NA
VANADIUM	ug/L	41.0
ZINC	ug/L	4.5

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90072: MW0003FB, MW0011EB, MW6601, MW7601

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS

TOTAL METALS SUMMARY TABLE

- NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW04501RP		SDG 90073
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	2.6
ANTIMONY	ug/L	100.0
ARSENIC	ug/L	NA
BARIUM	ug/L	2.4
BERYLLIUM	ug/L	8.4
CADMIUM	ug/L	100.0
CALCIUM	ug/L	5.5
CHROMIUM	ug/L	5.6
COBALT	ug/L	29.9
COPPER	ug/L	39.7
IRON	ug/L	4.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.8
MANGANESE	ug/L	6.1
MERCURY	ug/L	NA
NICKEL	ug/L	100.0
POTASSIUM	ug/L	14.9
SELENIUM	ug/L	NA
SILVER	ug/L	100.0
SODIUM	ug/L	*10.8
THALLIUM	ug/L	NA
VANADIUM	ug/L	0.5
ZINC	ug/L	9.0

* * INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90073: MW0012EB, MW4101, MW4201, MW4501, MW4501RP,
MW5201, MW5301, MW5801, MW5901

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW06101		SDG 90078
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINIUM	ug/L	0.9
ANTIMONY	ug/L	100.0
ARSENIC	ug/L	NA
BARIUM	ug/L	1.5
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	100.0
CALCIUM	ug/L	0.3
CHROMIUM	ug/L	4.9
COBALT	ug/L	100.0
COPPER	ug/L	0.0
IRON	ug/L	0.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.6
MANGANESE	ug/L	0.0
MERCURY	ug/L	NA
NICKEL	ug/L	100.0
POTASSIUM	ug/L	19.3
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.3
THALLIUM	ug/L	NA
VANADIUM	ug/L	1.9
ZINC	ug/L	1.1

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90078: MW00014EB, MW08201, MW08301, MW00901, MW07001,
 MW07101, MW07101RP, MW07201, MW06101, MW06201,
 MW06701, MW07701

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW03901		SDG 90076
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINIUM	ug/L	1.1
ANTIMONY	ug/L	100.0
ARSENIC	ug/L	NA
BARIUM	ug/L	0.6
BERYLLIUM	ug/L	17.3
CADMIUM	ug/L	NC
CALCIUM	ug/L	1.4
CHROMIUM	ug/L	2.3
COBALT	ug/L	100.0
COPPER	ug/L	0.2
IRON	ug/L	3.0
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.9
MANGANESE	ug/L	2.3
MERCURY	ug/L	NA
NICKEL	ug/L	100.0
POTASSIUM	ug/L	23.1
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.1
THALLIUM	ug/L	NA
VANADIUM	ug/L	1.9
ZINC	ug/L	3.6

• - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90076: MW00013EB, MW04601, MW03901, MW04001, MW08001,
 MW08101, MW01001, MW00701, MW03501, MW03601, MW03601,
 MW04701, MW04801, MW04901, MW05001, MW05101, MW05401, MW05401RP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW01101		SDG 90083
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINIUM	ug/L	100.0
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	100.0
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	100.0
CALCIUM	ug/L	7.8
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	3.2
LEAD	ug/L	NA
MAGNESIUM	ug/L	8.4
MANGANESE	ug/L	100.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	26.3
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	10.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	1.9

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90083: MW00017EB, MW00801, MW01101, MW03701, MW03801,
 MW04301, MW04401, MW06801, MW06901, MW06901RP,
 MW07801, MW07901, MW07901RP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED
GROUNDWATER SAMPLE SERIAL DILUTIONS
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW05601		SDG 90082
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	16.3
ANTIMONY	ug/L	458.6
ARSENIC	ug/L	NA
BARIUM	ug/L	8.7
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	1.8
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	2.9
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.1
MANGANESE	ug/L	0.4
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	0.4
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS
 NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90082: MW00016EB, MW05601, MW05601RP, MW06301, MW06401,
 MW07301, MW07401, MW05701, MW06001, MW06501, MW07501, MW05501

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW00601		SDG 90086
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	3.7
ANTIMONY	ug/L	377.5
ARSENIC	ug/L	NA
BARIUM	ug/L	8.7
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	2.5
CHROMIUM	ug/L	100.0
COBALT	ug/L	387.7
COPPER	ug/L	NC
IRON	ug/L	5.2
LEAD	ug/L	NA
MAGNESIUM	ug/L	3.0
MANGANESE	ug/L	29.2
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	13.4
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.6
THALLIUM	ug/L	NA
VANADIUM	ug/L	232.2
ZINC	ug/L	4.1

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90086: MW00018EB, MW00601, MW03701, MW03801

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2

GROUNDWATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW06601		SDG 90074
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	684.7
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	420.4
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	400.7
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	*423.2
LEAD	ug/L	NA
MAGNESIUM	ug/L	*404.1
MANGANESE	ug/L	477.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	536.8
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	*401.4
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	412.5

*• INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90074: MW00003FB, MW06601, MW07601

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW04501		SDG 90075
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	0.4
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	1.8
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	100.0
CALCIUM	ug/L	4.7
CHROMIUM	ug/L	6.2
COBALT	ug/L	100.0
COPPER	ug/L	149.0
IRON	ug/L	0.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.3
MANGANESE	ug/L	2.5
MERCURY	ug/L	NA
NICKEL	ug/L	100.0
POTASSIUM	ug/L	34.1
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	7.7
THALLIUM	ug/L	NA
VANADIUM	ug/L	6.0
ZINC	ug/L	14.3

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90075: MW00012EB, MW04101, MW04501, MW04501RP, MW05201,
MW05301, MW05801, MW05901

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW06801		SDG 90084
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	100.0
ANTIMONY	ug/L	589.6
ARSENIC	ug/L	NA
BARIUM	ug/L	12.1
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	7.0
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	1.5
LEAD	ug/L	NA
MAGNESIUM	ug/L	6.5
MANGANESE	ug/L	31.8
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	6.2
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	13.4

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90084: MW00017EB, MW00801, MW01101, MW04301, MW04401, MW06801,
MW06901, MW06901RP, MW07801, MW07901, MW07901RP .

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW00601		SDG 90087
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	100.0
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	20.3
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	1.0
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	59.6
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.5
MANGANESE	ug/L	100.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	3.1
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.3
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	23.4

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90087: MW00018EB, MW00601, MW03701, MW03801

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW05501		SDG 90081
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	5.5
ANTIMONY	ug/L	100.0
ARSENIC	ug/L	NA
BARIUM	ug/L	3.3
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.1
CHROMIUM	ug/L	280.7
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	1.5
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.9
MANGANESE	ug/L	12.1
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	149.4
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	2.7
THALLIUM	ug/L	NA
VANADIUM	ug/L	477.1
ZINC	ug/L	0.7

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE
NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90081: MW0016EB, MW05501, MW05601, MW05601RP, MW05701, MW06001,
MW06301, MW06401, MW06501, MW07301, MW07401, MW07501

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW05401RP		SDG 90077
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	4.2
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	4.8
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	1.9
CHROMIUM	ug/L	NC
COBALT	ug/L	100.0
COPPER	ug/L	NC
IRON	ug/L	1.6
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.4
MANGANESE	ug/L	10.7
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	0.6
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

*- INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90077: MW0013EB, MW00701, MW01001, MW03501, MW03601, MW03901,
MW04001, MW04601, MW05001, MW05401, MW05101, MW05401RP,
MW08001, MW08101

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED

GROUNDWATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW06101		SDG 90079
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	367.9
ANTIMONY	ug/L	100.0
ARSENIC	ug/L	NA
BARIUM	ug/L	21.0
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	416.7
CALCIUM	ug/L	1.9
CHROMIUM	ug/L	NC
COBALT	ug/L	100.0
COPPER	ug/L	100.0
IRON	ug/L	0.4
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.6
MANGANESE	ug/L	4.5
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	49.8
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	3.3
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	9.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLE
NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90079: MW0014EB, MW00901, MW06101, MW06201, MW06701, MW07001,
MW07101, MW07101RP, MW07201, MW07701, MW08201, MW08301

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3

**SURFACE WATER SAMPLE SERIAL DILUTION
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE SW03601RP		SDG 90100
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINIUM	ug/L	14.6
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	0.5
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	8.6
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	5.6
IRON	ug/L	7.5
LEAD	ug/L	NA
MAGNESIUM	ug/L	9.7
MANGANESE	ug/L	2.7
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	18.2
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	9.8
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	5.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90100: SW00004FB, SW03501, SW03601, SW03601RP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW03801		SDG 90120
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	3.0
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	1.2
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.7
CHROMIUM	ug/L	100.0
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	0.1
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.4
MANGANESE	ug/L	10.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.6
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90120: SW03801, SW00023EB

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW05401		SDG 90115
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	100.0
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	5.7
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.6
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	1.1
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.5
MANGANESE	ug/L	12.4
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	17.2
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.3
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

• INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90115: SW00021EB, SW05401RP, SW05401, SW05001

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW05101		SDG 90109
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	1.2
ANTIMONY	ug/L	100.0
ARSENIC	ug/L	NA
BARIUM	ug/L	1.1
BERYLLIUM	ug/L	2.5
CADMIUM	ug/L	13.5
CALCIUM	ug/L	1.6
CHROMIUM	ug/L	1.2
COBALT	ug/L	3.9
COPPER	ug/L	1.0
IRON	ug/L	7.7
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.4
MANGANESE	ug/L	9.0
MERCURY	ug/L	NA
NICKEL	ug/L	12.0
POTASSIUM	ug/L	15.3
SELENIUM	ug/L	NA
SILVER	ug/L	100.0
SODIUM	ug/L	1.2
THALLIUM	ug/L	NA
VANADIUM	ug/L	0.1
ZINC	ug/L	3.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90109: SW00020EB, SW03401, SW05101, SW05601

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW05701		SDG 90118
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	5.1
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	1.7
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	2.1
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	0.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.3
MANGANESE	ug/L	5.6
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	7.5
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	0.9
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	100.0

• - INDICATES VALUE OUTSIDE QC LIMITS
 NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90118: SW05701

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW04701		SDG 90123
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	3.2
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	1.8
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.3
CHROMIUM	ug/L	100.0
COBALT	ug/L	100.0
COPPER	ug/L	100.0
IRON	ug/L	1.4
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.4
MANGANESE	ug/L	0.2
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	13.7
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	3.2
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	12.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90123: SW04501, SW05501, SW04601, SW04701, SW00024EB

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

**SURFACE WATER SAMPLE SERIAL DILUTION
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE SW03701		SDG 90129
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	3.6
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	4.8
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.0
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	0.4
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.0
MANGANESE	ug/L	0.3
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	280.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	2.6
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	11.9

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90129: SW03701, SW00025EB

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW04301RP		SDG 90133
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	14.4
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	15.3
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	2.4
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	4.2
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.1
MANGANESE	ug/L	0.6
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	18.6
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS
 NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90133: SW00028EB, SW04301, SW04301RP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW04201		SDG 90136
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	49.0
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	2.1
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.5
CHROMIUM	ug/L	100.0
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	2.0
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.3
MANGANESE	ug/L	7.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	8.8
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	4.4
THALLIUM	ug/L	NA
VANADIUM	ug/L	192.9
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90136: SW00030EB, SW04101, SW04201

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW06101		SDG 90141
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	2.1
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	7.5
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	100.0
CALCIUM	ug/L	1.6
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	11.2
IRON	ug/L	3.6
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.3
MANGANESE	ug/L	11.1
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	4.4
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	73.9

• - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90141: SW06101, SW06201, SW00035EB

90147: SW06001, SW05901, SW00037EB

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 4

**SURFACE WATER SAMPLE SERIAL DILUTION
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE SW05701		SDG 90114
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	NC
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BIARIUM	ug/L	4.0
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	1.5
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	25.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.2
MANGANESE	ug/L	13.1
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	4.3
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	2.3
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

- - INDICATES VALUE OUTSIDE QC LIMITS
- NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
- NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90114: SW00022EB, SW05701

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 4, CONTINUED

**SURFACE WATER SAMPLE SERIAL DILUTION
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE SW05101		SDG 90110
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	6.8
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	3.4
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	7.1
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	6.7
LEAD	ug/L	NA
MAGNESIUM	ug/L	5.7
MANGANESE	ug/L	5.8
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	3.9
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90110: SW00020EB, SW03401, SW05101, SW05601

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 4, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW03601RP		SDG 90105
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	100.0
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	0.0
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	8.6
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	5.7
LEAD	ug/L	NA
MAGNESIUM	ug/L	9.8
MANGANESE	ug/L	3.4
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	11.2
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	9.9
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90105: SW00004FB, SW00019EB, SW03501, SW03601, SW03601RP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 4, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW03801RP		SDG 90119
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	NC
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	51.2
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	1.2
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	0.3
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.0
MANGANESE	ug/L	6.3
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	0.3
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90119: SW00023EB, SW03801

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 4, CONTINUED

SURFACE WATER SAMPLE SERIAL DILUTION
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SW00025EB		SDG 90130
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	380.2
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	NC
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	NC
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	146.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	NC
MANGANESE	ug/L	NC
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	100.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90130: SW00025EB, SW03701

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 4, CONTINUED

**SURFACE WATER SAMPLE SERIAL DILUTION
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE SW00033EB		SDG 90139
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	NC
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	NC
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	NC
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	NC
LEAD	ug/L	NA
MAGNESIUM	ug/L	NC
MANGANESE	ug/L	NC
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	317.6
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	38.9
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	NC

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90139: SW00033EB, SW04001, SW05801

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 4, CONTINUED

**SURFACE WATER SAMPLE SERIAL DILUTION
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE SW04101		SDG 90137
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	100.0
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	4.9
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	2.5
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	3.1
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.2
MANGANESE	ug/L	6.9
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	52.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	0.1
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100.0

*- INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90137: SW00030EB, SW04101, SW04201

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 4, CONTINUED

**SURFACE WATER SAMPLE SERIAL DILUTION
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE SW06101		SDG 90148
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	2.1
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	7.5
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	100.0
CALCIUM	ug/L	1.6
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	11.2
IRON	ug/L	3.6
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.3
MANGANESE	ug/L	11.1
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	4.4
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	73.9

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90148: SW00037EB, SW05901, SW06001

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 5

SOIL SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SB05001		SDG 90026
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	0.1
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	3.2
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	100.0
CHROMIUM	ug/L	100.0
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	2.2
LEAD	ug/L	NA
MAGNESIUM	ug/L	17.7
MANGANESE	ug/L	1.1
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	100.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	28.5
ZINC	ug/L	15.3

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90026: SB0501, SB05001RP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 5, CONTINUED

SOIL SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SB06401		SDG 02EB
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	6.2
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	100.0
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	14.9
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	5.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	100.0
MANGANESE	ug/L	100.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	NC
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	275.0

• - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

02EB: SB05002, SB04201, SB04202, SB04601, SB06401, SB07401,
 SB05601, SB04602, SB08302, SB08301

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 5, CONTINUED

SOIL SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SB03601		SDG 03801
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	2.8
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	5.3
BERYLLIUM	ug/L	400.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	*11.7
CHROMIUM	ug/L	100.0
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	3.1
LEAD	ug/L	NA
MAGNESIUM	ug/L	77.0
MANGANESE	ug/L	11.8
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	68.2
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	23.7

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

03801: SB05602, SB03801, SB03802, SB07402, SB06402, SB04001,
 SB04002, SB03602, SB03601, SB03601RP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 5, CONTINUED

SOIL SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SB06401		SDG 90065
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	*13.1
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	6.4
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	3.9
CHROMIUM	ug/L	25.9
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	3.2
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.3
MANGANESE	ug/L	5.9
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	516.5
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	37.6

* - INDICATES VALUE OUTSIDE QC LIMITS
 NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90065: SB06801, SB06801RP, SB06403

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 5, CONTINUED

SOIL SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SB06501		SDG 90067
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	19.2
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	11.9
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	34.3
CHROMIUM	ug/L	100.0
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	5.7
LEAD	ug/L	NA
MAGNESIUM	ug/L	100.0
MANGANESE	ug/L	3.8
MERCURY	ug/L	NA
NICKEL	ug/L	75.8
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	571.8
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	66.4

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90067: SB05701, SB06501

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6

SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD05301		SDG 90100
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	0.1
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	8.8
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	100.0
CHROMIUM	ug/L	100.0
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	6.7
LEAD	ug/L	NA
MAGNESIUM	ug/L	21.4
MANGANESE	ug/L	100.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	100.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	15.1

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90100: SD03501, SB03601, SD03601RP, SD04801, SD05201, SD05301,

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD03801		SDG 90120
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	0.7
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	16.5
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.3
CHROMIUM	ug/L	0.7
COBALT	ug/L	100.0
COPPER	ug/L	100.0
IRON	ug/L	1.6
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.2
MANGANESE	ug/L	1.9
MERCURY	ug/L	NA
NICKEL	ug/L	100.0
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	100.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	7.6
ZINC	ug/L	0.7

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90120: SD03801

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD05401RP		SDG 90115
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	3.1
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	6.9
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	4.6
CHROMIUM	ug/L	31.2
COBALT	ug/L	100.0
COPPER	ug/L	100.0
IRON	ug/L	4.6
LEAD	ug/L	NA
MAGNESIUM	ug/L	10.2
MANGANESE	ug/L	5.2
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	100.0
SODIUM	ug/L	96.4
THALLIUM	ug/L	NA
VANADIUM	ug/L	5.5
ZINC	ug/L	8.1

*- INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90115: SD05401RP, SD05401, SD05001, SD04901

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED
 SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD05601		SDG 90109
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	7.6
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	4.6
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	100.0
CALCIUM	ug/L	*10.6
CHROMIUM	ug/L	16.7
COBALT	ug/L	100.0
COPPER	ug/L	3.8
IRON	ug/L	*11.5
LEAD	ug/L	NA
MAGNESIUM	ug/L	9.5
MANGANESE	ug/L	*14.1
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	100.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	8.6
ZINC	ug/L	*11.2

* - INDICATES VALUE OUTSIDE QC LIMITS
 NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90109: SD03401, SD05101, SD05601

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD05701		SDG 90118
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	9.7
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	5.7
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	100.0
CALCIUM	ug/L	*11.7
CHROMIUM	ug/L	41.9
COBALT	ug/L	NC
COPPER	ug/L	5.4
IRON	ug/L	*11.5
LEAD	ug/L	NA
MAGNESIUM	ug/L	9.9
MANGANESE	ug/L	*13.1
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	100.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	32.9
ZINC	ug/L	*13.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90118: SD05701

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD04501		SDG 90123
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	5.3
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	7.2
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	100.0
CHROMIUM	ug/L	25.9
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	2.7
LEAD	ug/L	NA
MAGNESIUM	ug/L	3.8
MANGANESE	ug/L	7.5
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	NC
THALLIUM	ug/L	NA
VANADIUM	ug/L	42.7
ZINC	ug/L	28.3

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90123: SD04501, SD05501, SD04601, SD04701, SD04401

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD03701		SDG 90129
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	1.4
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	53.2
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	1.0
CHROMIUM	ug/L	100.0
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	4.0
LEAD	ug/L	NA
MAGNESIUM	ug/L	21.4
MANGANESE	ug/L	36.4
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	NC
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	22.5

* - INDICATES VALUE OUTSIDE QC LIMITS
 NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90129: SD03701, SD03901

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD04301		SDG 90133
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	*13.9
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	10.3
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	2.0
CHROMIUM	ug/L	80.2
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	4.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.0
MANGANESE	ug/L	2.7
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.6
THALLIUM	ug/L	NA
VANADIUM	ug/L	13.4
ZINC	ug/L	9.8

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90133: SD04301, SD04301RP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD04101		SDG 90136
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	1.3
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	4.8
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	5.5
CHROMIUM	ug/L	78.0
COBALT	ug/L	NC
COPPER	ug/L	5.2
IRON	ug/L	5.0
LEAD	ug/L	NA
MAGNESIUM	ug/L	7.0
MANGANESE	ug/L	6.7
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	194.2
THALLIUM	ug/L	NA
VANADIUM	ug/L	100.0
ZINC	ug/L	1.3

* - INDICATES VALUE OUTSIDE QC LIMITS
 NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
 NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90136: SD04101, SD04201

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD06001		SDG 90141
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	0.5
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	3.5
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	100.0
CALCIUM	ug/L	4.5
CHROMIUM	ug/L	100.0
COBALT	ug/L	100.0
COPPER	ug/L	105.0
IRON	ug/L	0.3
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.3
MANGANESE	ug/L	11.8
MERCURY	ug/L	NA
NICKEL	ug/L	100.0
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	4.3
THALLIUM	ug/L	NA
VANADIUM	ug/L	16.1
ZINC	ug/L	28.3

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90141: SD06101, SD06201

90147: SD06001, SD05901

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 6, CONTINUED

SEDIMENT SAMPLE SERIAL DILUTION
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE SD04001		SDG 90138
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	4.2
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	1.8
BERYLLIUM	ug/L	100.0
CADMIUM	ug/L	NC
CALCIUM	ug/L	3.2
CHROMIUM	ug/L	1.0
COBALT	ug/L	100.0
COPPER	ug/L	100.0
IRON	ug/L	3.7
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.7
MANGANESE	ug/L	0.5
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	100.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	18.5
ZINC	ug/L	4.5

- - INDICATES VALUE OUTSIDE QC LIMITS
- NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
- NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES
 90138: SD04001, SD05801

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULE ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

APPENDIX C

REJECTED DATA SUMMARY

TABLE C - 1
GC/MS VOLATILES - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX						# OF COMPOUNDS REJECTED PER MATRIX					
	QC	MW	SB	SW	SD	CW	QC	MW	SB	SW	SD	CW
02EB	4	0	10	0	0	0	0	0	0	0	0	0
90026	4	0	1	0	0	0	0	0	0	0	0	0
03801	10	0	9	0	0	0	0	0	0	0	0	0
90065	4	0	2	0	0	0	0	0	0	0	0	0
90067	2	0	2	0	0	0	0	0	0	0	0	0
012EB (90073)	3	7	0	0	0	0	0	0	0	0	0	0
003FB (90072)	3	2	0	0	0	0	0	0	0	0	0	0
90076	3	15	0	0	0	0	0	0	0	0	0	0
90078	3	10	0	0	0	0	0	0	0	0	0	0
03501 (90100)	5	0	0	2	5	0	0	0	0	0	0	0
016E (90083)	3	10	0	0	0	0	0	0	0	0	0	0
017EB (90083)	6	11	0	0	0	0	0	0	0	0	0	0
90115	4	0	0	2	3	0	0	0	0	0	0	0
90120	2	0	0	1	1	0	0	0	0	0	0	0
90118	2	0	0	1	1	0	0	0	0	0	0	0
90109	2	0	0	3	3	0	0	0	0	0	0	0
90133	4	0	0	1	1	0	0	0	0	0	0	0
90129	2	0	0	1	2	0	0	0	0	0	0	0
90123	2	0	0	4	5	0	0	0	0	0	0	0
90143	3	0	0	0	0	3	0	0	0	0	0	0
90144	2	0	0	0	0	5	0	0	0	0	0	0
90160	2	0	0	0	0	1	0	0	0	0	0	0
90136	2	0	0	2	2	0	0	0	0	0	0	0
90138	2	0	0	2	2	0	0	0	0	0	0	0
90141	2	0	0	2	2	0	0	0	0	0	0	0
90147	2	0	0	2	2	0	0	0	0	0	0	0
90176	5	0	0	0	0	5	0	0	0	0	0	0
90160	2	0	0	0	0	1	0	0	0	0	0	0
90195	2	0	0	0	0	1	0	0	0	0	0	0
GRAND TOTAL	92	55	24	23	29	16	0	0	0	0	0	0
COMPLETION GOAL (>96%)							100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

OVERALL
COMPLETENESS
100.0%

MATRIX KEY

- QC = QC SAMPLES
- MW = GROUNDWATER SAMPLES
- SB = SURFACE SOIL SAMPLES
- SW = SURFACE WATER SAMPLES
- SD = SEDIMENT SAMPLES
- CW = CONE PENETROMETER SAMPLES

* 33 TARGET COMPOUNDS PER SAMPLE

TABLE C - 2
SEMIVOLATILES - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX						# OF COMPOUNDS REJECTED PER MATRIX				
	QC	MW	SB	SW	SD		QC	MW	SB	SW	SD
							0	0	0	0	0
02EB	2	0	10	0	0		0	0	0	0	0
90025	3	0	1	0	0		0	0	0	0	0
03801	6	0	9	0	0		0	0	0	0	0
90065	3	0	2	0	0		0	0	0	0	0
90067	1	0	2	0	0		0	0	0	0	0
012EB (90073)	2	7	0	0	0		0	0	0	0	0
003FB (90072)	2	2	0	0	0		0	0	0	0	0
90076	2	15	0	0	0		0	0	0	0	0
90078	2	10	0	0	0		0	0	0	0	0
03501 (90100)	4	0	0	2	5		0	0	0	0	0
016E (90083)	2	10	0	0	0		0	0	0	0	0
017EB (90083)	4	11	0	0	0		0	0	0	0	0
90115	3	0	0	2	3		0	0	0	0	0
90120	1	0	0	1	1		0	0	0	0	0
90118	1	0	0	1	1		0	0	0	0	0
90109	1	0	0	3	3		0	0	0	0	0
90133	3	0	0	1	1		0	0	0	0	0
90129	1	0	0	1	2		0	0	0	0	0
90123	1	0	0	4	5		0	0	0	0	0
90136	1	0	0	2	2		0	0	0	0	0
90138	1	0	0	2	2		0	0	0	0	0
90141	1	0	0	2	2		0	0	0	0	0
90147	1	0	0	2	2		0	0	0	0	0
GRAND TOTAL	48	55	24	23	29		0	0	0	0	0
COMPLETION GOAL (>95%)							100.0%	100.0%	100.0%	100.0%	100.0%

OVERALL COMPLETENESS
100.0%

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SB = SURFACE SOIL SAMPLES
 SW = SURFACE WATER SAMPLES
 SD = SEDIMENT SAMPLES

* 64 TARGET COMPOUNDS PER SAMPLE

**TABLE C - 3
PESTICIDES/PCBS - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	# SAMPLES/MATRIX						# OF COMPOUNDS REJECTED PER MATRIX				
	QC	MW	SB	SW	SD		QC	MW	SB	SW	SD
02EB	2	0	10	0	0		0	0	0	0	0
90026	3	0	1	0	0		0	0	0	0	0
03801	6	0	9	0	0		1	0	1	0	0
90065	3	0	2	0	0		0	0	0	0	0
90067	1	0	2	0	0		0	0	0	0	0
012EB (90073)	2	7	0	0	0		0	0	0	0	0
003FB (90072)	2	2	0	0	0		0	0	0	0	0
90076	2	15	0	0	0		0	0	0	0	0
90078	2	10	0	0	0		0	0	0	0	0
03501 (90100)	4	0	0	2	5		0	0	0	0	0
016E (90082)	2	10	0	0	0		0	0	0	0	0
017EB (90083)	4	11	0	0	0		0	0	0	0	0
90115	3	0	0	2	3		0	0	0	0	0
90120	1	0	0	1	1		0	0	0	0	0
90118	1	0	0	1	1		0	0	0	0	0
90109	1	0	0	3	3		0	0	0	0	0
90133	3	0	0	1	1		0	0	0	0	0
90129	1	0	0	1	2		0	0	0	0	0
90123	1	0	0	4	5		0	0	0	0	0
90136	1	0	0	2	2		0	0	0	0	0
90138	1	0	0	2	2		0	0	0	0	0
90141	1	0	0	2	2		0	0	0	0	0
90147	1	0	0	2	2		0	0	0	0	0
GRAND TOTAL	48	55	24	23	29		1	0	1	0	0
COMPLETION GOAL (>96%)							99.9%	100.0%	99.9%	100.0%	100.0%

OVERALL COMPLETENESS
99.9%

MATRIX KEY

- QC = QC SAMPLES
- MW = GROUNDWATER SAMPLES
- SB = SURFACE SOIL SAMPLES
- SW = SURFACE WATER SAMPLES
- SD = SEDIMENT SAMPLES

TABLE C - 4
 TOTAL METALS/CYANIDE - REJECTED DATA
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX						# OF COMPOUNDS REJECTED PER MATRIX				
	QC	MW	SB	SW	SD		QC	MW	SB	SW	SD
02EB	2	0	10	0	0		0	0	10	0	0
90026	3	0	1	0	0		0	0	0	0	0
03801	6	0	9	0	0		0	0	0	0	0
90085	3	0	2	0	0		0	0	0	0	0
90087	1	0	2	0	0		0	0	0	0	0
012EB (90073)	2	7	0	0	0		2	7	0	0	0
003FB (90072)	2	2	0	0	0		0	0	0	0	0
90076	2	15	0	0	0		0	0	0	0	0
90078	2	10	0	0	0		0	0	0	0	0
03501 (90100)	4	0	0	2	5		0	0	0	0	0
016E (90083)	2	10	0	0	0		0	0	0	0	0
017EB (90083)	4	11	0	0	0		0	0	0	0	0
90115	3	0	0	2	3		0	0	0	0	0
90120	1	0	0	1	1		0	0	0	0	1
90118	1	0	0	1	1		0	0	0	0	0
90109	1	0	0	3	3		0	0	0	0	0
90133	3	0	0	1	1		0	0	0	0	0
90129	1	0	0	1	2		0	0	0	0	0
90123	1	0	0	4	5		0	0	0	0	1
90136	1	0	0	2	2		0	0	0	0	0
90138	1	0	0	2	2		0	0	0	0	0
90141	1	0	0	2	2		0	0	0	0	0
90147	1	0	0	2	2		0	0	0	0	0
GRAND TOTAL	48	55	24	23	29		2	7	10	0	2
COMPLETION GOAL (>96%)							99.8%	99.5%	98.3%	100.0%	99.7%

OVERALL COMPLETENESS
99.5%

MATRIX KEY

- QC = QC SAMPLES
- MW = GROUNDWATER SAMPLES
- SB = SURFACE SOIL SAMPLES
- SW = SURFACE WATER SAMPLES
- SD = SEDIMENT SAMPLES

* 24 TARGET COMPOUNDS PER SAMPLE

**TABLE C - 5
DISSOLVED METALS - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	# SAMPLES/MATRIX				# OF COMPOUNDS REJECTED PER MATRIX		
					QC	MW	SW
	QC	MW	SW				
90074	2	2	0		0	0	0
90075	2	7	0		0	0	0
90077	2	15	0		0	1	0
90081	2	10	0		0	0	0
90084	3	8	0		0	0	0
90087	1	3	0		0	0	0
90079	2	10	0		0	0	0
90114	1	0	1		0	0	0
90124	1	0	4		0	0	3
90110	1	0	3		0	0	0
90113	2	0	2		0	0	0
90119	1	0	1		0	0	0
90105	3	0	2		0	0	0
90130	1	0	1		0	0	0
90135	2	0	1		0	0	0
90137	1	0	2		0	0	0
90139	1	0	2		0	0	0
90142	1	0	2		0	0	0
90148	1	0	2		0	0	0
GRAND TOTAL	30	55	23		0	1	3
COMPLETION GOAL (>96%)					100.0%	99.9%	99.4%

OVERALL COMPLETENESS
99.8%

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SW = SURFACE WATER SAMPLES

* 23 TARGET COMPOUNDS PER SAMPLE

TABLE C - 6
 TOTAL PETROLEUM HYDROCARBONS - REJECTED DATA
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	SW	SD
03501 (90100)	4	2	5	0	0	0
90115	3	2	3	0	0	0
90120	1	1	1	0	0	0
90118	1	1	1	0	0	0
90109	1	3	3	0	0	0
90133	3	1	1	0	0	0
90129	1	1	1	0	0	0
90123	1	4	5	0	0	0
90136	1	2	2	0	0	0
90138	1	2	2	0	0	0
90141	1	2	2	0	0	0
90147	1	2	2	0	0	0

GRAND TOTAL	19	23	28	0	0	0
-------------	----	----	----	---	---	---

COMPLETION GOAL (>98%)		100.0%	100.0%	100.0%
------------------------	--	--------	--------	--------

OVERALL COMPLETENESS
100.0%

MATRIX KEY

QC = QC SAMPLES
 SW = SURFACE WATER SAMPLES
 SD = SEDIMENT SAMPLES

* 1 TARGET COMPOUND PER SAMPLE

TABLE C - 7
 RADIOLOGICAL NUCLIDES - REJECTED DATA
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX					# OF COMPOUNDS REJECTED PER MATRIX				
	QC	MW	SB	SW	SD	QC	MW	SB	SW	SD
90026	3	0	1	0	0	0	0	0	0	0
90027	1	0	4	0	0	0	0	0	0	0
90028	1	0	6	0	0	0	0	0	0	0
90029	1	0	3	0	0	0	0	0	0	0
90030	1	0	1	0	0	0	0	0	0	0
90031	1	0	2	0	0	0	0	0	0	0
90032	3	0	3	0	0	0	0	0	0	0
90065	3	0	2	0	0	0	0	0	0	0
90067	1	0	2	0	0	0	0	0	0	0
90072	2	0	2	0	0	0	0	0	0	0
90073	1	7	0	0	0	0	0	0	0	0
90076	2	15	0	0	0	0	0	0	0	0
90078	2	10	0	0	0	0	0	0	0	0
90082	2	10	0	0	0	0	0	0	0	0
90083	3	8	0	0	0	0	0	0	0	0
90086	1	3	0	0	0	0	0	0	0	0
90100	4	0	0	2	5	14	0	0	0	70
90109	1	0	0	3	3	0	0	0	0	42
90115	3	0	0	2	3	14	0	0	0	42
90118	1	0	0	1	1	0	0	0	0	14
90120	1	0	0	1	1	0	0	0	0	14
90123	1	0	0	4	5	0	0	0	0	28
90129	1	0	0	1	2	0	0	0	0	0
90133	3	0	0	1	1	0	0	0	0	0
90136	1	0	0	2	2	0	0	0	0	0
90138	1	0	0	2	2	0	0	0	0	0
90141	1	0	0	2	2	0	0	0	0	0
90147	1	0	0	2	2	0	0	0	0	0

GRAND TOTAL	42	53	15	23	29	28	0	0	0	210
-------------	----	----	----	----	----	----	---	---	---	-----

COMPLETION GOAL (>96%)						93.9%	100.0%	100.0%	100.0%	48.3%
------------------------	--	--	--	--	--	-------	--------	--------	--------	-------

OVERALL COMPLETENESS	88.4%
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MATRIX KEY

- QC = QC SAMPLES
- MW = GROUNDWATER SAMPLES
- SB = SURFACE SOIL SAMPLES
- SW = SURFACE WATER SAMPLES
- SD = SEDIMENT SAMPLES

* 11 NUCLIDES PER SAMPLE/WATER SAMPLES

APPENDIX P-3.2

ROUND 2 CONTAMINATION DELINEATION GROUNDWATER

**PRECISION, ACCURACY, REPRESENTATIVENESS,
COMPARABILITY, AND COMPLETENESS FOR
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
FOR OPERABLE UNIT NO. 1 (OU1) OF THE
NAVAL AIR STATION, ROUND 2, JACKSONVILLE, FLORIDA**

**NAVAL AIR STATION
JACKSONVILLE, FLORIDA**

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March 1994

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CROSS REFERENCE LIST

CLIENT SDG NUMBER		LABORATORY REFERENCE NUMBER
U1105		90205, 90209, 90217, 90218, 90222, 90224, 90223
U1106		90252, 90254, 90259, 90260, 90261, 90262 G44822, G44823 (LOW CONC. VOLATILES) 93-11205, 93-11180 (DIOXIN/FURANS)
U1107		90273, 90275, 90276, 90277, 90281, 90282
U1108		90283, 90284

1.0 INTRODUCTION

Prior to evaluating the data for precision, accuracy, representativeness, comparability, and completeness (PARCC) criteria the laboratory reviewed the data package and the data also was independently reviewed and validated using the Naval Energy and Environmental and Support Activity (NEESA) guidance document 20.2-047B (1988) entitled, *Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Program*. Before the laboratory released the chemical analytical results, both the sample and laboratory QC data were carefully reviewed in order to verify sample identity, instrument calibration, detection limits, dilution factors, numerical computations, accuracy of transcriptions, and chemical interpretations. Additionally, the QC data were reduced and spike recoveries were included in control charts, and the resulting data were reviewed to ascertain whether they were within the laboratory defined limits for accuracy and precision. The data was compiled into a NEESA Level D data package and any nonconforming data were discussed in the data package cover letter and case narrative. According to ABB-ES, the three (3) field samples analyzed under lab reference number 90258 were not associated with a field duplicate or an MS/MSD pair.

The Level D data packages were then reviewed and validated by Heartland Environmental Services, Inc., Missouri (Heartland). Data validation is the technical review of a data package using criteria established in the data quality objectives, the quality assurance project plan and guidance documents prepared by the United States Environmental Protection Agency (USEPA) for the validation of organic and inorganic analytical data (USEPA 1990a and 1990b) as specified by NEESA document 20.2-047B.

Samples that did not meet the acceptance limit criteria were qualified with a flag; single letter abbreviations that indicate a problem with the data. Data qualifiers used by the validators when amending the data include the following.

- U Undetected. The analyte was not detected above the contract required quantitation limit (CRQL). The "U" designator also is used to qualify common laboratory contaminants. The "U" designator is applied to an environmental sample when the common laboratory contaminant is detected in an environmental sample at a concentration less than 5 times (10 times for common laboratory contaminants) the value of the concentration detected in any corresponding field QC blank, method blank or preparation blanks.
- J Estimated. The analyte was present, but the reported value may not be accurate or precise. The "J" designator is used to qualify an analyte that was present at a concentration between the CRQL and method detection limit (MDL) or the data "failed" some of the analytical validation criteria but not sufficient to reject the data and when combined with the U designator the quantitation limit is estimated.
- R Rejected. Data was rejected by the data validator during comparison of the NEESA Level D data package with the analytical functional guideline criteria. The "R" designator indicates a significant variance in acceptable laboratory performance. Either re-analysis or re-sampling and analysis would be necessary to determine the presence or absence of the target analyte(s).

Once the data were reviewed and validated according to the guidance presented in NEESA document 20.2-047B, the data were evaluated by Heartland using the PARCCs criteria included in the Data Quality Objectives (DQOs) of the Work Plan for Navy Installation Restoration Program

Plan, NAS Jacksonville, Florida. The following sections present a brief description of PARCCs criteria.

Precision. Precision is a measure of the agreement or repeatability of a set of replicate results obtained from duplicate laboratory analyses of samples collected from the same location/depth interval. Precision was calculated from laboratory analytical data and cannot be measured directly. Precision is expressed as the Relative Percent Difference (RPD) between analytical values for two samples divided by the average of their analytical values. Precision is calculated using the expression:

$$RPD = (D1-D2) / (\frac{1}{2}(D1 + D2)) \times 100$$

D1 and D2 are the reported values for the duplicate sample pair. Precision was evaluated using field duplicate samples and laboratory split samples (for example, MS/MSD samples).

Precision for environmental samples and their duplicates was assessed using a maximum RPD of 20 Percent for the water matrix, and 35 Percent for the soil matrix. Precision for MS/MSD/MD samples was assessed by using the target analyte specific RPD criteria for the spiked compounds and the sample duplicates.

Accuracy. Accuracy is a measure of the agreement between an experimental determination and the true value of the parameter being measured. Accuracy can be calculated from the analytical data and was not measured directly. Accuracy is used to identify the bias in a given measurement system (i.e. laboratory conditions, sample matrix, and sampling conditions). Accuracy is assessed by reviewing the Percent Recovery (%R) between the true value of the spike analyte and the actual analytical value. Accuracy is calculated using the equation:

$$\%R = ((A-B)/C) \times 100$$

A = Measured concentration of the spiked analyte.

B = Measured concentration of the spiked compound in the unspiked sample.

C = True concentration of the spiked analyte.

For the organic analyses, each of the samples was spiked with a surrogate compound; and for inorganic analyses, each chosen matrix spike and matrix duplicate pair was spiked with a known reference material before digestion. Each of these approaches provides a measure of the matrix effects on the analytical accuracy.

Representativeness. Representativeness is a qualitative measure of the degree to which sample data accurately and precisely represent a characteristic environmental condition. Representativeness is a subjective parameter and is used to evaluate the efficacy of the sampling plan design. Representativeness was evaluated using the field and laboratory QC blank sample results. QC blank samples are equipment rinseate blanks, field blanks, trip blanks, laboratory method blanks for organic analysis and laboratory preparation blanks for inorganic analysis. Positive detection of target analytes in the QC blank samples identify contaminants that possibly were introduced to the associated environmental sample during sample collection, transport or laboratory analysis. Representativeness is also assessed utilizing the extraction and analytical holding times requirements set forth in the methodologies and/or the functional guidelines.

Comparability. Comparability is qualitative measure designed to express the confidence with which one data set may be compared to another. Factors that affect comparability are: sample collection

and handling techniques, sample matrix type, and analytical method. Comparability is limited by the other PARCC parameters because only when precision and accuracy are known can data sets be compared with confidence.

Completeness. Completeness is defined as the percentage of measurements that are judged to be valid compared to the total number of measurements made. Valid usable data are values that were not qualified as rejected (R qualifier) during data validation. A goal of 96 percent usable data was established in the Work Plan for NAS Jacksonville RI/F \dot{S} for OU-1. Completeness equals the total number of analytes for each matrix minus the total number of rejected analytes divided by the total number of analytes multiplied by 100.

2.0 PRECISION

The following section describes the evaluation of precision for volatile organic compounds, semivolatile organic compounds, dioxin/furans (D/F), pesticides and polychlorinated biphenyls (PCBs), total metals, dissolved metals, total petroleum hydrocarbons (TPHs), and radiological nuclides. Duplicate samples are evaluated for precision only when contaminants are detected in both the environmental sample and the sample's duplicate. A ND in the RPD column of the precision table indicates that a RPD calculation was not required because one (1) concentration was non-detect and the other concentration was less than the compound/analyte CRQL/CRDL. Environmental samples and their respective duplicates may not exhibit positive results for all compounds found at or near the contract required quantitation limit (CRQL), practical quantitation limit (PQL), or contract required detection limit (CRDL) because of low levels of contamination found at a site. Duplicates with Relative Percent Differences (RPDs) within control limits indicate adequate sampling practices and/or good analytical precision. Duplicates with RPDs outside the control limits may result from inappropriate sampling procedures, matrix interferences, or non-homogeneity of the sample matrix. In addition, poor precision can be attributed to deviation(s) from the analytical methodology or to poor reproducibility of target analyte concentrations at or near the required quantitation or detection limits (CRQLs or CRDLs). The acceptance criteria for evaluating precision of field duplicate analytical results is a RPD of 20 for water matrices and 35 for solid matrices.

Field duplicates were submitted for validation for all analytical fractions. The percentage of duplicate samples collected for this project was equal to or above ten percent for all matrices for all fractions.

The following Sections summarize the evaluation of analytical precision for the groundwater, and soil field samples for the following analytical groups:

- GC/MS volatile organic compounds (GC/MS VOCs);
- semivolatile organic compounds (SVOCs);
- dioxin/furans (D/F);
- pesticides, PCBs;
- metals/cyanide, dissolved metals;
- total petroleum hydrocarbons (TPH);
- radiological gamma-scan nuclides.

Duplicate precision was assessed using both environmental sample and associated duplicates and matrix spike (MS) and matrix spike duplicates (MSDs). The laboratory did not perform any QC spikes or matrix spikes for the radiological parameters.

Tabulation of the results of assessing duplicate precision and duplicate frequency are presented in Tables 2-1 through 2-7 for the water matrix and Tables 2-8 through 2-14 for the soil matrix. Tabulation of the results assessing precision based on the reproducibility between spike sample/spike duplicate/matrix duplicate sample pairs are presented in Tables 2-17 through 2-33 for the water matrix and Tables 2-21 through 2-26 for the soil matrix.

In addition, to assess whether instrument calibration for volatile and semivolatile analytical methods resulted in non-compliant duplicate precision, tables were made of calibrations for each sample delivery group (SDG) which exhibited non-compliant calibrations. These are included in Appendix A. The pesticide/PCB calibrations were within QC criteria for all calibrations associated with this project. To assess potential non-compliance caused by physical and/or chemical interferences and indicated by non-compliant serial dilution results, tables were made of serial dilution results for each

TABLE 2 - 1
GC/MS VOLATILE ORGANIC COMPOUNDS
WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1106	MW10601	WATER	10	NO COMPOUNDS DETECTED				
G44823	MW03202	WATER	10	BENZENE	0	1.1	20%	200%
				ISOPROPYLBENZENE	0	1.3	20%	200%
U1108	MW11201	WATER	6	NO COMPOUNDS DETECTED				
U1107	MW10801	WATER	18	NO COMPOUNDS DETECTED				
	MW08801			NO COMPOUNDS DETECTED				
TOTAL SAMPLES			44					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.4%	0	2	0.0%

TABLE 2 - 2
SEMIVOLATILE ORGANIC COMPOUNDS
WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1106	MW10601	WATER	10	BIS(2-ETHYLHEXYL)PHTHALATE	7	0	20%	200%
U1108	MW11201	WATER	6	BIS(2-ETHYLHEXYL)PHTHALATE	0	2	20%	200%
U1107	MW10801	WATER	18	BIS(2-ETHYLHEXYL)PHTHALATE	8	2	20%	200%
	MW08801			BIS(2-ETHYLHEXYL)PHTHALATE	2	0	20%	200%
				DIETHYLPHTHALATE	0	4	20%	200%

TOTAL SAMPLES 34

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.8%	0	5	0.0%

TABLE 2 - 3
PESTICIDES/PCBS
WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1106	MW10601	WATER	10	NO COMPOUNDS DETECTED				
U1108	MW11201	WATER	6	NO COMPOUNDS DETECTED				
U1107	MW10801	WATER	18	NO COMPOUNDS DETECTED				
	MW08801			NO COMPOUNDS DETECTED				
TOTAL SAMPLES			34					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.8%	0	0	100.0%

TABLE 2 - 4
METALS/CYANIDE
WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1106	MW10601	WATER	10	ALUMINIUM	2150	4610	20%	73%
				ARSENIC	4.5	5.1	20%	12%
				BARIUM	49.8	68.6	20%	32%
				BERYLLIUM	0.52	0.84	20%	47%
				CALCIUM	79700	100000	20%	23%
				CHROMIUM	0	21	20%	200%
				IRON	2480	4550	20%	59%
				LEAD	3.3	4.7	20%	35%
				MAGNESIUM	10300	15600	20%	41%
				MANGANESE	39	53	20%	30%
				POTASSIUM	2480	2180	20%	13%
				SODIUM	22000	18500	20%	17%
				VANADIUM	11.5	15.4	20%	29%
				ZINC	0	20.6	20%	200%
U1108	MW11201	WATER	6	CYANIDE	1.8	0	20%	ND
				ALUMINIUM	5540	1880	20%	99%
				ARSENIC	2.2	0	20%	ND
				BARIUM	62.7	51.5	20%	20%
				BERYLLIUM	0.81	0.2	20%	121%
				CALCIUM	158000	125000	20%	23%
				CHROMIUM	17.7	7.3	20%	83%
				COPPER	2.2	4.8	20%	74%
				IRON	5770	3460	20%	50%
				LEAD	1.2	0	20%	ND
				MAGNESIUM	19700	8790	20%	77%
				MANGANESE	46.8	40.2	20%	15%
				POTASSIUM	1410	1370	20%	3%
				SELENIUM	2.6	0	20%	ND
SODIUM	8680	8820	20%	2%				
VANADIUM	14.7	7	20%	71%				
ZINC	17.9	10	20%	57%				

TABLE 2 - 4, CONTINUED
METALS/CYANIDE
WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD				
U1107	MW10801	WATER	18	ALUMINUM	1570	1660	20%	6%				
				ARSENIC	0	2.3	20%	ND				
				BARIUM	51.5	50.8	20%	1%				
				CALCIUM	124000	122000	20%	2%				
				CHROMIUM	3.4	4.7	20%	32%				
				IRON	2430	2470	20%	2%				
				LEAD	2.2	1.8	20%	20%				
				MAGNESIUM	6580	6540	20%	1%				
				MANGANESE	33.7	33	20%	2%				
				POTASSIUM	1810	1790	20%	1%				
				SODIUM	13800	13900	20%	1%				
				VANADIUM	8	8.3	20%	4%				
				ZINC	6.5	5.7	20%	13%				
				MW08801	WATER			ALUMINUM	1010	3850	20%	117%
								ARSENIC	45.1	49	20%	8%
								BARIUM	56.6	79.8	20%	34%
								BERYLLIUM	0	0.47	20%	ND
								CALCIUM	16100	20200	20%	23%
	CHROMIUM	4.2	13.2					20%	103%			
	IRON	22200	25000					20%	12%			
	MAGNESIUM	8080	10100					20%	22%			
	MANGANESE	38.9	46					20%	17%			
	POTASSIUM	916	1090					20%	17%			
	SELENIUM	2.1	3.6					20%	53%			
	SILVER	2.8	0					20%	200%			
	SODIUM	20500	20500					20%	0%			
	VANADIUM	3.7	11.2					20%	101%			
	ZINC	14.1	18.3					20%	26%			

TOTAL SAMPLES 34

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
11.8%	28	31	47.5%

TABLE 2 - 5
DISSOLVED METALS
WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD	
U1108	MW11201	WATER	6	BARIUM	46.9	45.9	20%	2%	
				CALCIUM	105000	102000	20%	3%	
				IRON	1990	2020	20%	1%	
				MAGNESIUM	4270	4150	20%	3%	
				MANGANESE	25.5	24.4	20%	4%	
				POTASSIUM	958	990	20%	3%	
				SODIUM	8560	8330	20%	3%	
				THALLIUM	0	0.89	20%	ND	
				ZINC	0	1.6	20%	ND	
U1107	MW10801	WATER	18	ALUMINIUM	0	25.7	20%	ND	
				ARSENIC	1.9	0	20%	ND	
				BARIUM	37.5	35.9	20%	4%	
				CALCIUM	70300	70200	20%	0%	
				IRON	1190	1060	20%	12%	
				LEAD	0	1.1	20%	ND	
				MAGNESIUM	5540	5560	20%	0%	
				MANGANESE	24.1	23.6	20%	2%	
				POTASSIUM	1180	1670	20%	34%	
	MW08801	WATER	18	18	SODIUM	13700	13900	20%	1%
					ARSENIC	40.5	38.7	20%	5%
					BARIUM	48.9	48.6	20%	1%
					CALCIUM	15300	15500	20%	1%
					IRON	22200	22100	20%	0%
					LEAD	0	1.2	20%	ND
					MAGNESIUM	7720	7750	20%	0%
					MANGANESE	38.2	37.3	20%	2%
					NICKEL	10.6	10	20%	6%
POTASSIUM	926	1030	20%	11%					
SODIUM	20500	20500	20%	0%					
ZINC	6.2	9.4	20%	41%					
TOTAL SAMPLES			24						

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
12.5%	28	2	93.3%

TABLE 2 - 7

**RADIOLOGICAL NUCLIDES
WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	NUCLIDE	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1106	MW10601	WATER	10	NO NUCLIDES DETECTED				
U1107	MW08801	WATER	17	Bi-214	0	19.4	20%	200%
	MW10801			NO NUCLIDES DETECTED				
U1108	MW11201	WATER	6	NO NUCLIDES DETECTED				

TOTAL SAMPLES 33

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
12.1%	0	1	0.0%

TABLE 2 - 8

GC/MS VOLATILE ORGANIC COMPOUNDS
 SOIL SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1105	SB10601	SOIL	10	ALL COMPOUNDS REJECTED				
TOTAL SAMPLES			10					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
10.0%	0	0	0.0%

TABLE 2 - 9

SEMIVOLATILE ORGANIC COMPOUNDS
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1105	SB10601	SOIL	10	NO COMPOUNDS DETECTED				

TOTAL SAMPLES 10

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
10.0%	1	0	100.0%

TABLE 2 - 10**DIOXIN/FURANS****SOIL SAMPLE AND DUPLICATE PRECISION****NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1105	SB10601	SOIL	10	1,2,3,4,6,7,8-HpCDD	0.74	0.99	35%	29%
				OCDD *	3.71	4.5	35%	19%
TOTAL SAMPLES			10					

% OF DUPLICATE COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
10.0%	1	0	100.0%

* - VALUE IN FIELD DUPLICATE IS REPORTED AS MAXIMUM POSSIBLE CONCENTRATION (MPC).

TABLE 2 - 11

PESTICIDE/PCBS

SOIL SAMPLE AND DUPLICATE PRECISION

NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1105	SB10601	SOIL	10	NO COMPOUNDS DETECTED				
TOTAL SAMPLES			10					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
10.0%	1	0	100.0%

TABLE 2 - 12

**METALS AND CYANIDE
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1105	SB10601	SOIL	10	ALUMINUM	1770	1400	35%	23%
				ANTIMONY	7.1	0	35%	ND
				BARIUM	6.4	5.1	35%	23%
				BERYLLIUM	0.35	0.36	35%	3%
				CADMIUM	0.94	0.93	35%	1%
				CALCIUM	107000	108000	35%	1%
				CHROMIUM	6.2	4.6	35%	30%
				COBALT	0	1.2	35%	ND
				COPPER	0.98	0.96	35%	2%
				IRON	1630	1440	35%	12%
				MAGNESIUM	27200	29900	35%	9%
				MANGANESE	27.8	29.9	35%	7%
				NICKEL	0	4.4	35%	ND
				POTASSIUM	172	220	35%	24%
				SELENIUM	0.8	0	35%	ND
				SODIUM	169	179	35%	6%
VANADIUM	7.8	6.3	35%	21%				
ZINC	3.2	3.3	35%	3%				

TOTAL SAMPLES 10

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
10.0%	18	0	100.0%

TABLE 2 - 13

**TOTAL PETROLEUM HYDROCARBONS
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1105	SB10601	SOIL	10	NO COMPOUND DETECTED				

TOTAL SAMPLES 10

% OF DUPLICATE COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
10.0%	1	0	100.0%

TABLE 2 - 14

RADIOLOGICAL NUCLIDES
 SOIL SAMPLE AND DUPLICATE PRECISION
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	NUCLIDE	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1105	SB10601	SOIL	10	Ac-228	447	532	35%	17%
				Bi-212	387	0	35%	200%
				Bi-214	543	530	35%	2%
				K-40	2400	2640	35%	10%
				Pb-212	330	343	35%	4%
				Pb-214	769	678	35%	13%
				Tl-208	150	133	35%	12%
				U-235	205	0	35%	200%
TOTAL SAMPLES			10					

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
10.0%	6	2	75.0%

TABLE 2 - 15

**LOW CONCENTRATION VOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE		SAMPLE MW02702		SDG U1106
MSD = MATRIX SPIKE DUPLICATE				MS
RPD = RELATIVE PERCENT DIFFERENCE				%R
LC VOA COMPOUNDS		UNITS		ADVISORY LIMITS
				%R WATER
CHLOROBROMOMETHANE	ug/L	88		71%-109%
CHLOROMETHANE	ug/L	90		86%-120%
BROMOMETHANE	ug/L	110		70%-120%
VINYL CHLORIDE	ug/L	88		78%-118%
DICHLORODIFLUOROMETHANE	ug/L	78		67%-113%
CHLOROETHANE	ug/L	95		62%-116%
METHYLENE CHLORIDE	ug/L	98		79%-111%
1,1-DICHLOROETHYLENE	ug/L	86		61%-145%
TRANS-1,2-DICHLOROETHENE	ug/L	92		76%-110%
TRICHLOROFLUOROMETHANE	ug/L	82		65%-113%
1,1-DICHLOROETHANE	ug/L	98		80%-112%
2,2-DICHLOROPROPANE	ug/L	89		35%-107%
CIS-1,2-DICHLOROETHENE	ug/L	100		81%-121%
CHLOROFORM	ug/L	98		72%-108%
1,1-DICHLOROPROPENE	ug/L	89		71%-125%
1,2-DICHLOROETHANE	ug/L	110		78%-111%
1,1,1-TRICHLOROETHANE	ug/L	90		74%-122%
CARBON TETRACHLORIDE	ug/L	84		58%-110%
BROMODICHLOROMETHANE	ug/L	99		77%-113%
1,2-DICHLOROPROPANE	ug/L	100		79%-115%
CIS-1,3-DICHLOROPROPENE	ug/L	100		0%-226%
DIBROMOMETHANE	ug/L	100		83%-117%
TRICHLOROETHENE	ug/L	94		71%-120%
1,3-DICHLOROPROPANE	ug/L	100		17%-183%
1,2-DIBROMOETHANE	ug/L	100		80%-120%
DIBROMOCHLOROMETHANE	ug/L	100		71%-113%
1,1,2-TRICHLOROETHANE	ug/L	100		82%-126%
BENZENE	ug/L	98		76%-127%
ISOPROPYLBENZENE	ug/L	93		78%-124%
TRANS-1,3-DICHLOROPROPENE	ug/L	100		17%-183%
BROMOFORM	ug/L	98		82%-120%
TETRACHLOROETHENE	ug/L	91		69%-109%
1,1,2,2-TETRACHLOROETHANE	ug/L	100		72%-110%
TOLUENE	ug/L	97		76%-125%
1,1,1,2-TETRACHLOROETHANE	ug/L	88		70%-110%
BROMOBENZENE	ug/L	100		83%-117%
CHLOROBENZENE	ug/L	100		75%-130%
ETHYLBENZENE	ug/L	95		73%-125%
STYRENE	ug/L	67		81%-123%
XYLENES, TOTAL	ug/L	93		81%-127%
1,2,3-TRICHLOROPROPANE	ug/L	98		65%-151%
N-PROPYLBENZENE	ug/L	91		83%-117%
2-CHLOROTOLUENE	ug/L	98		71%-109%
4-CHLOROTOLUENE	ug/L	97		74%-124%
1,3,5-TRIMETHYLBENZENE	ug/L	78		70%-114%
TERT-BUTYLBENZENE	ug/L	91		80%-124%
1,2,3-TRIMETHYLBENZENE	ug/L	78		75%-123%
SEC-BUTYLBENZENE	ug/L	91		77%-123%
P-CYMENE	ug/L	90		80%-120%
1,2-DICHLOROBENZENE	ug/L	100		74%-112%
1,4-DICHLOROBENZENE	ug/L	100		84%-122%
1,3-DICHLOROBENZENE	ug/L	100		78%-120%
N-BUTYLBENZENE	ug/L	91		77%-123%
DBCP	ug/L	100		77%-127%
1,2,4-TRICHLOROBENZENE	ug/L	99		83%-123%
NAPHTHALENE	ug/L	100		79%-129%
1,2,3-TRICHLOROBENZENE	ug/L	100		83%-135%
HEXACHLOROBUTADIENE	ug/L	89		80%-120%

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

TABLE 2 - 15

**LOW CONCENTRATION VOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE		SAMPLE MW0007FB	SDG U1106
MSD = MATRIX SPIKE DUPLICATE			MS
RPD = RELATIVE PERCENT DIFFERENCE			%R
			ADVISORY LIMITS
LC VOA COMPOUNDS	UNITS		%R WATER
CHLOROBROMOMETHANE	ug/L	*110	71%-109%
CHLOROMETHANE	ug/L	100	68%-120%
BROMOMETHANE	ug/L	110	70%-120%
VINYL CHLORIDE	ug/L	110	78%-118%
DICHLORODIFLUOROMETHANE	ug/L	100	67%-113%
CHLOROETHANE	ug/L	110	62%-116%
METHYLENE CHLORIDE	ug/L	110	79%-111%
1,1-DICHLOROETHYLENE	ug/L	110	61%-145%
TRANS-1,2-DICHLOROETHENE	ug/L	110	76%-110%
TRICHLOROFLUOROMETHANE	ug/L	110	65%-113%
1,1-DICHLOROETHANE	ug/L	110	80%-112%
2,2-DICHLOROPROPANE	ug/L	*110	35%-107%
CIS-1,2-DICHLOROETHENE	ug/L	110	81%-121%
CHLOROFORM	ug/L	*110	72%-108%
1,1-DICHLOROPROPENE	ug/L	110	71%-125%
1,2-DICHLOROETHANE	ug/L	*120	79%-111%
1,1,1-TRICHLOROETHANE	ug/L	110	74%-122%
CARBON TETRACHLORIDE	ug/L	110	58%-110%
BROMODICHLOROMETHANE	ug/L	110	77%-113%
1,2-DICHLOROPROPANE	ug/L	*120	79%-115%
CIS-1,3-DICHLOROPROPENE	ug/L	113	0%-226%
DIBROMOMETHANE	ug/L	110	83%-117%
TRICHLOROETHENE	ug/L	110	71%-120%
1,3-DICHLOROPROPANE	ug/L	120	17%-183%
1,2-DIBROMOETHANE	ug/L	110	80%-120%
DIBROMOCHLOROMETHANE	ug/L	110	71%-113%
1,1,2-TRICHLOROETHANE	ug/L	110	82%-126%
BENZENE	ug/L	110	76%-127%
ISOPROPYLBENZENE	ug/L	120	78%-124%
TRANS-1,3-DICHLOROPROPENE	ug/L	110	17%-183%
BROMOFORM	ug/L	110	82%-120%
TETRACHLOROETHENE	ug/L	*110	69%-109%
1,1,2,2-TETRACHLOROETHANE	ug/L	110	72%-110%
TOLUENE	ug/L	110	76%-125%
1,1,1,2-TETRACHLOROETHANE	ug/L	110	70%-110%
BROMOBENZENE	ug/L	110	83%-117%
CHLOROBENZENE	ug/L	110	75%-130%
ETHYLBENZENE	ug/L	110	73%-125%
STYRENE	ug/L	110	81%-123%
XYLENES, TOTAL	ug/L	113	81%-127%
1,2,3-TRICHLOROPROPANE	ug/L	115	65%-151%
N-PROPYLBENZENE	ug/L	*120	83%-117%
2-CHLOROTOLUENE	ug/L	*120	71%-109%
4-CHLOROTOLUENE	ug/L	110	74%-124%
1,3,5-TRIMETHYLBENZENE	ug/L	110	70%-114%
TERT-BUTYLBENZENE	ug/L	120	80%-124%
1,2,3-TRIMETHYLBENZENE	ug/L	110	75%-123%
SEC-BUTYLBENZENE	ug/L	120	77%-123%
P-CYMENE	ug/L	120	80%-120%
1,2-DICHLOROBENZENE	ug/L	*120	74%-112%
1,4-DICHLOROBENZENE	ug/L	100	84%-122%
1,3-DICHLOROBENZENE	ug/L	110	78%-120%
N-BUTYLBENZENE	ug/L	120	77%-123%
DBCP	ug/L	113	77%-127%
1,2,4-TRICHLOROBENZENE	ug/L	110	83%-123%
NAPHTHALENE	ug/L	120	79%-129%
1,2,3-TRICHLOROBENZENE	ug/L	110	83%-135%
HEXACHLOROBUTADIENE	ug/L	120	80%-120%

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

TABLE 2 - 15, CONTINUED

**LOW CONCENTRATION VOLATILE ORGANICS COMPOUNDS
GROUNDWATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1105 (G44822 & G44823)

90252: MW02702, MW03002, MW03102, MW03202, MW01402, MW01501, MW01602,
MW01702, MW02102, MW02602, MW00007FB, MW00045TB, MW00080EB

TABLE 2 - 15, CONTINUED

GC/MS VOLATILE ORGANICS COMPOUNDS
 WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW10601		SDG U1106		
				MS	MSD	
				%R	%R	%RPD
VOA COMPOUNDS		UNITS				
1,1-DICHLOROETHENE		ug/L	133	130		2
TRICHLOROETHENE		ug/L	*121	120		1
BENZENE		ug/L	120	122		2
TOLUENE		ug/L	120	120		0
CHLOROBENZENE		ug/L	118	117		1

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90254: MW09301, MW10201

90259: MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101,
 MW09501, MW09401, MW09601

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW11201		SDG U1108		
				MS	MSD	
				%R	%R	%RPD
VOA COMPOUNDS		UNITS				
1,1-DICHLOROETHENE		ug/L	85	78		9
TRICHLOROETHENE		ug/L	96	95		1
BENZENE		ug/L	96	97		1
TOLUENE		ug/L	93	88		6
CHLOROBENZENE		ug/L	97	98		1

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1108

90283: MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
1,1-DICHLOROETHENE	61%-145%		14
TRICHLOROETHENE	71%-120%		14
BENZENE	76%-127%		11
TOLUENE	76%-125%		13
CHLOROBENZENE	75%-130%		13

TABLE 2 - 15, CONTINUED

GC/MS VOLATILE ORGANICS COMPOUNDS
 WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW10801		SDG U1107		
				MS	MSD	
				%R	%R	%RPD
VOA COMPOUNDS	UNITS					
1,1-DICHLOROETHENE	ug/L	93	85	9		
TRICHLOROETHENE	ug/L	101	99	2		
BENZENE	ug/L	91	90	1		
TOLUENE	ug/L	95	90	5		
CHLOROBENZENE	ug/L	99	100	1		

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1107

90273: MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701

90276: MW09801, MW09901, MW11601, MW11501, MW09001, MW09101

90281: MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
1,1-DICHLOROETHENE	61%-145%		14
TRICHLOROETHENE	71%-120%		14
BENZENE	76%-127%		11
TOLUENE	76%-125%		13
CHLOROBENZENE	75%-130%		13

TABLE 2 - 16

**SEMIVOLATILE ORGANICS COMPOUNDS
WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW10601		SDG U1106	
		MS	MSD		
SVOA COMPOUNDS		UNITS	%R	%R	%RPD
PHENOL	ug/L	90	91	1	
2-CHLOROPHENOL	ug/L	85	86	1	
1,4-DICHLOROBENZENE	ug/L	78	80	3	
N-NITROSO-DI-N-PROP.(1)	ug/L	75	73	3	
1,2,4-TRICHLOROBENZENE	ug/L	82	82	0	
4-CHLORO-3-METHYLPHENOL	ug/L	88	85	3	
ACENAPHTHENE	ug/L	81	80	1	
4-NITROPHENOL	ug/L	*97	*93	4	
2,4-DINITROTOLUENE	ug/L	89	87	2	
PENTACHLOROPHENOL	ug/L	100	98	2	
PYRENE	ug/L	71	74	4	

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90254: MW09301, MW10201

90259: MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW09501,
MW09401, MW09601

COMPOUND	ADVISORY LIMITS	RPD
	% R WATER	WATER
PHENOL	12%-110%	42
2-CHLOROPHENOL	27%-123%	40
1,4-DICHLOROBENZENE	36%-97%	28
N-NITROSO-DI-N-PROP.(1)	41%-116%	38
1,2,4-TRICHLOROBENZENE	39%-98%	28
4-CHLORO-3-METHYLPHENOL	23%-97%	42
ACENAPHTHENE	46%-118%	31
4-NITROPHENOL	10%-80%	50
2,4-DINITROTOLUENE	24%-96%	38
PENTACHLOROPHENOL	9%-103%	50
PYRENE	26%-127%	31

TABLE 2 - 16, CONTINUED

**SEMIVOLATILE ORGANICS COMPOUNDS
WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SAMPLE MW11201		SDG U1108	
		MS	MSD		
SVOA COMPOUNDS		UNITS	%R	%R	%RPD
PHENOL	ug/L	69	66	4	
2-CHLOROPHENOL	ug/L	71	66	7	
1,4-DICHLOROBENZENE	ug/L	67	53	23	
N-NITROSO-DI-N-PROP.(1)	ug/L	79	76	4	
1,2,4-TRICHLOROBENZENE	ug/L	77	62	22	
4-CHLORO-3-METHYLPHENOL	ug/L	79	77	3	
ACENAPHTHENE	ug/L	75	72	4	
4-NITROPHENOL	ug/L	*91	*102	11	
2,4-DINITROTOLUENE	ug/L	81	82	1	
PENTACHLOROPHENOL	ug/L	*124	132	6	
PYRENE	ug/L	95	88	8	

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1108

90283: MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
PHENOL	12%-110%		42
2-CHLOROPHENOL	27%-123%		40
1,4-DICHLOROBENZENE	36%-97%		28
N-NITROSO-DI-N-PROP.(1)	41%-116%		38
1,2,4-TRICHLOROBENZENE	39%-98%		28
4-CHLORO-3-METHYLPHENOL	23%-97%		42
ACENAPHTHENE	46%-118%		31
4-NITROPHENOL	10%-80%		50
2,4-DINITROTOLUENE	24%-96%		38
PENTACHLOROPHENOL	9%-103%		50
PYRENE	26%-127%		31

TABLE 2 - 16, CONTINUED
SEMIVOLATILE ORGANICS COMPOUNDS
WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE		SAMPLE MW10801		SDG U1107		
MSD = MATRIX SPIKE DUPLICATE				MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE				%R	%R	%RPD
SVOA COMPOUNDS	UNITS					
PHENOL	ug/L	76	73	4		
2-CHLOROPHENOL	ug/L	80	75	6		
1,4-DICHLOROBENZENE	ug/L	77	69	11		
N-NITROSO-DI-N-PROP.(1)	ug/L	89	85	5		
1,2,4-TRICHLOROBENZENE	ug/L	88	80	10		
4-CHLORO-3-METHYLPHENOL	ug/L	88	85	3		
ACENAPHTHENE	ug/L	81	77	5		
4-NITROPHENOL	ug/L	*91	*92	1		
2,4-DINITROTOLUENE	ug/L	85	83	2		
PENTACHLOROPHENOL	ug/L	*116	*118	2		
PYRENE	ug/L	74	70	6		

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1107

90273: MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701
 90276: MW09801, MW09901, MW11601, MW11501, MW09001, MW09101
 90281: MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901,
 MW11001

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
PHENOL	12%-110%		42
2-CHLOROPHENOL	27%-123%		40
1,4-DICHLOROBENZENE	36%-97%		28
N-NITROSO-DI-N-PROP.(1)	41%-116%		38
1,2,4-TRICHLOROBENZENE	39%-98%		28
4-CHLORO-3-METHYLPHENOL	23%-97%		42
ACENAPHTHENE	46%-118%		31
4-NITROPHENOL	10%-80%		50
2,4-DINITROTOLUENE	24%-96%		38
PENTACHLOROPHENOL	9%-103%		50
PYRENE	26%-127%		31

TABLE 2 - 17

PESTICIDES/PCBS

WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW10601 MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG U1106		
		MS	MSD	
		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	106	100	6
Heptachlor	ug/L	90	86	5
Aldrin	ug/L	83	80	4
Dieldrin	ug/L	99	97	2
Endrin	ug/L	113	110	3
4,4'-DDT	ug/L	92	92	0

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

SDG U1106

90254: MW09301, MW10201

90259: MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW09501, MW09401, MW09601

MS = MATRIX SPIKE SAMPLE MW11201 MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG U1108		
		MS	MSD	
		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	*46	65	*34
Heptachlor	ug/L	44	64	*37
Aldrin	ug/L	41	59	*36
Dieldrin	ug/L	70	83	17
Endrin	ug/L	78	91	15
4,4'-DDT	ug/L	62	70	12

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

SDG U1108

90283: MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101

COMPOUND	ADVISORY LIMITS	RPD
	% R WATER	WATER
gamma-BHC(Lindane)	56%-123%	15
HEPTACHLOR	40%-131%	20
ALDRIN	40%-120%	22
DIELDRIN	52%-126%	18
ENDRIN	56%-121%	21
4,4'-DDT	38%-127%	27

TABLE 2 - 17, CONTINUED

PESTICIDES/PCBS

WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE <i>SAMPLE MW10801</i>		SDG U1107		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/L	86	76	12
Heptachlor	ug/L	91	77	17
Aldrin	ug/L	85	69	21
Dieldrin	ug/L	103	90	13
Endrin	ug/L	116	101	14
4,4'-DDT	ug/L	81	67	19

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

SDG U1107

90273: MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701

90276: MW09801, MW09901, MW11601, MW11501, MW09001, MW09101

90281: MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901,

MW11001

COMPOUND	ADVISORY LIMITS		RPD
	% R WATER		WATER
gamma-BHC(Lindane)	56%-123%		15
HEPTACHLOR	40%-131%		20
ALDRIN	40%-120%		22
DIELDRIN	52%-126%		18
ENDRIN	56%-121%		21
4,4'-DDT	38%-127%		27

TABLE 2 - 18

**TOTAL METALS AND CYANIDE
WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE MW10601		SDG U1106	
MD = MATRIX DUPLICATE SAMPLE MW10601		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	*351.0	8.9
ANTIMONY	ug/L	106.8	NC
ARSENIC	ug/L	112.2	1.6
BARIIUM	ug/L	101.9	0.8
BERYLLIUM	ug/L	105.3	28.6
CADMIUM	ug/L	104.7	NC
CALCIUM	ug/L	NR	0.4
CHROMIUM	ug/L	101.1	25.7
COBALT	ug/L	98.9	200.0
COPPER	ug/L	101.0	14.6
IRON	ug/L	*229.5	3.1
LEAD	ug/L	98.6	13.9
MAGNESIUM	ug/L	NR	0.2
MANGANESE	ug/L	100.4	2.5
MERCURY	ug/L	91.2	NC
NICKEL	ug/L	100.4	NC
POTASSIUM	ug/L	NR	18.9
SELENIUM	ug/L	87.0	NC
SILVER	ug/L	90.1	54.2
SODIUM	ug/L	NR	0.4
THALLIUM	ug/L	107.7	NC
VANADIUM	ug/L	94.7	16.7
ZINC	ug/L	100.8	13.0
CYANIDE	ug/L	78.5	200.0

MS = MATRIX SPIKE SAMPLE MW09301		SDG U1106	
MD = MATRIX DUPLICATE SAMPLE MW09301		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	97.7	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90259: MW00083EB, MW10601, MW10601DUP, MW10501, MW09201, MW10001,
MW10101, MW00082EB, MW09501, MW09401, MW09601

90252: MW00007FB

90254: MW00081EB, MW09301, MW10201

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract

Required Detection Limit (CRDL)

SOME VALUES HAVE BEEN ROUNDED TO LIMIT SIGNIFICANT FIGURES TO THREE (3)

TABLE 2 - 18

TOTAL METALS AND CYANIDE
 WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW11201 MD = MATRIX DUPLICATE SAMPLE MW11201 RPD = RELATIVE PERCENT DIFFERENCE		SDG U1108	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	* 576	* 72.1
ANTIMONY	ug/L	98.7	NC
ARSENIC	ug/L	104	20.9
BARIUM	ug/L	93.8	4.4
BERYLLIUM	ug/L	97.3	22.0
CADMIUM	ug/L	97.0	NC
CALCIUM	ug/L	NR	0.1
CHROMIUM	ug/L	97.1	30.8
COBALT	ug/L	90.8	NC
COPPER	ug/L	92.9	200
IRON	ug/L	331	* 23.6
LEAD	ug/L	84.9	200
MAGNESIUM	ug/L	NR	1.8
MANGANESE	ug/L	92.7	5.8
MERCURY	ug/L	84.7	NC
NICKEL	ug/L	93.8	NC
POTASSIUM	ug/L	NR	8.4
SELENIUM	ug/L	63.0	200
SILVER	ug/L	84.8	NC
SODIUM	ug/L	NR	0.2
THALLIUM	ug/L	103.8	NC
VANADIUM	ug/L	88.4	42.7
ZINC	ug/L	95.6	18.0
CYANIDE	ug/L	95.2	NC

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1108

90283: MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP,

MW11101, MW00087EB

SDG U1107

90273: MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401,

MW09701

90276: MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101

90281: MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601,

MW10901, MW11001

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract

Required Detection Limit (CRDL)

SOME VALUES HAVE BEEN ROUNDED TO LIMIT SIGNIFICANT FIGURES TO THREE (3)

TABLE 2 - 18, CONTINUED

TOTAL METALS AND CYANIDE
 WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW10801		SDG U1107	
MD = MATRIX DUPLICATE SAMPLE MW10801		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINIUM	ug/L	*292	12.6
ANTIMONY	ug/L	104	NC
ARSENIC	ug/L	111	NC
BARIIUM	ug/L	98.2	0.0
BERYLLIUM	ug/L	102	NC
CADMIUM	ug/L	97.4	NC
CALCIUM	ug/L	NR	1.4
CHROMIUM	ug/L	98.3	40.2
COBALT	ug/L	95.0	NC
COPPER	ug/L	97.8	NC
IRON	ug/L	*201	1.8
LEAD	ug/L	87.9	27.3
MAGNESIUM	ug/L	NR	0.2
MANGANESE	ug/L	96.5	0.7
MERCURY	ug/L	99.1	12.3
NICKEL	ug/L	96.2	NC
POTASSIUM	ug/L	NR	6.8
SELENIUM	ug/L	81.0	NC
SILVER	ug/L	94.0	NC
SODIUM	ug/L	NR	1.3
THALLIUM	ug/L	90.8	NC
VANADIUM	ug/L	91.1	3.4
ZINC	ug/L	97.5	12.0
CYANIDE	ug/L	94.6	NC

MS = MATRIX SPIKE SAMPLE MW08901		SDG 90281 (U1107)	
MD = MATRIX DUPLICATE SAMPLE MW08901		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
METALS COMPOUNDS	UNITS		
CYANIDE	ug/L	96.4	200

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1107

90273: MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701

90276: MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101

90281: MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract Required Detection Limit (CRDL)

SOME VALUES HAVE BEEN ROUNDED TO LIMIT SIGNIFICANT FIGURES TO THREE (3)

TABLE 2 - 19

DISSOLVED METALS

WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW10601 MD = MATRIX DUPLICATE SAMPLE MW10601 RPD = RELATIVE PERCENT DIFFERENCE		SDG U1106	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	108	14.9
ANTIMONY	ug/L	104	NC
ARSENIC	ug/L	105	7.8
BARIUM	ug/L	102	1.2
BERYLLIUM	ug/L	105	NC
CADMIUM	ug/L	101	NC
CALCIUM	ug/L	NR	1.4
CHROMIUM	ug/L	98.6	NC
COBALT	ug/L	98.9	NC
COPPER	ug/L	101	NC
IRON	ug/L	102	1.1
LEAD	ug/L	94.8	NC
MAGNESIUM	ug/L	NR	0.9
MANGANESE	ug/L	99.7	1.4
MERCURY	ug/L	94.5	NC
NICKEL	ug/L	99.0	NC
POTASSIUM	ug/L	NR	25.6
SELENIUM	ug/L	93.0	NC
SILVER	ug/L	97.1	NC
SODIUM	ug/L	NR	0.8
THALLIUM	ug/L	91.5	NC
VANADIUM	ug/L	94.6	200
ZINC	ug/L	98.8	200
CYANIDE	ug/L	NR	NR

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90260: MW09201, MW09401, MW09501, MW09601, MW10001, MW10101,

MW10501, MW10601, MW10601DUP, MW00082EB, MW00083EB

90261: MW09301, MW10201, MW00081EB

90262: MW00007FB

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract

Required Detection Limit (CRDL)

SOME VALUES HAVE BEEN FROUNDED TO LIMIT SIGNIFICANT FIGURES TO THREE (3)

TABLE 2 - 19, CONTINUED

DISSOLVED METALS
 WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW11201 MD = MATRIX DUPLICATE SAMPLE MW11201 RPD = RELATIVE PERCENT DIFFERENCE		SDG U1108	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	99.7	NC
ANTIMONY	ug/L	98.0	NC
ARSENIC	ug/L	88.9	NC
BARIUM	ug/L	100	0.0
BERYLLIUM	ug/L	102	NC
CADMIUM	ug/L	108	NC
CALCIUM	ug/L	NR	0.1
CHROMIUM	ug/L	93.5	NC
COBALT	ug/L	90.0	NC
COPPER	ug/L	91.7	NC
IRON	ug/L	102	0.3
LEAD	ug/L	94.5	NC
MAGNESIUM	ug/L	NR	0.2
MANGANESE	ug/L	91.0	2.6
MERCURY	ug/L	98.7	NC
NICKEL	ug/L	91.6	NC
POTASSIUM	ug/L	NR	9.8
SELENIUM	ug/L	80.0	NC
SILVER	ug/L	*65.7	NC
SODIUM	ug/L	NR	0.7
THALLIUM	ug/L	90.2	NC
VANADIUM	ug/L	86.2	NC
ZINC	ug/L	96.3	NC
CYANIDE	ug/L	NR	NR

*DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1108

90283: MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP,
 MW11101, MW00087EB

SDG U1107

90275: MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401,
 MW09701

90277: MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101

90282: MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601,
 MW10901, MW11001

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract

Required Detection Limit (CRDL)

SOME VALUES HAVE BEEN FROUNDED TO LIMIT SIGNIFICANT FIGURES TO THREE (3)

TABLE 2 - 19, CONTINUED

DISSOLVED METALS AND CYANIDE
 WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE SAMPLE MW10801 MD = MATRIX DUPLICATE SAMPLE MW10801 RPD = RELATIVE PERCENT DIFFERENCE		SDG 90273	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	ug/L	95.9	NC
ANTIMONY	ug/L	100	NC
ARSENIC	ug/L	104	200
BARIUM	ug/L	93.0	5.0
BERYLLIUM	ug/L	96.6	NC
CADMIUM	ug/L	91.9	NC
CALCIUM	ug/L	NR	0.1
CHROMIUM	ug/L	93.6	NC
COBALT	ug/L	90.2	NC
COPPER	ug/L	92.2	200
IRON	ug/L	95.5	0.1
LEAD	ug/L	107	NC
MAGNESIUM	ug/L	NR	0.3
MANGANESE	ug/L	92.1	0.9
MERCURY	ug/L	90.8	NC
NICKEL	ug/L	91.8	NC
POTASSIUM	ug/L	NR	3.6
SELENIUM	ug/L	93.0	NC
SILVER	ug/L	85.0	NC
SODIUM	ug/L	NR	0.3
THALLIUM	ug/L	92.4	NC
VANADIUM	ug/L	87.0	NC
ZINC	ug/L	95.3	200
CYANIDE	ug/L	NR	NR

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1107

90275: MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701

90277: MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101

90282: MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/-CRDL = RPD Limit applicable only on values 5 times the Contract Required Detection Limit (CRDL)

SOME VALUES HAVE BEEN FROUNDED TO LIMIT SIGNIFICANT FIGURES TO THREE (3)

TABLE 2 - 20

**TOTAL PETROLEUM HYDROCARBONS
WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE MW10601</i>		SDG U1106	
MD = MATRIX DUPLICATE		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH	UNITS		
TOTAL PETROLEUM HYDROCARBON	mg/L	70.9	ND

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90259: MW00083EB, MW10601, MW10601DUP, MW10501, MW09201, MW10001,

MW10101, MW00082EB, MW09501, MW09401, MW09601

90252: MW00007FB

90254: MW00081EB, MW09301, MW10201

MS = MATRIX SPIKE <i>SAMPLE MW11201</i>		SDG U1108	
MD = MATRIX DUPLICATE		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH	UNITS		
TOTAL PETROLEUM HYDROCARBON	mg/L	80.1	ND

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.

NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1108

90283: MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP,

MW11101, MW00087EB

COMPOUND	ADVISORY LIMITS	RPD
	%R WATER	WATER
ALL COMPOUNDS	80%-120%	+/-20

TABLE 2 - 20

**TOTAL PETROLEUM HYDROCARBONS
WATER SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE MW10801</i>		SDG U1107	
MD = MATRIX DUPLICATE		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH	UNITS		
TOTAL PETROLEUM HYDROCARBON	mg/L	94.6	ND

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1107

90273: MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701
 90276: MW09801, MW09901, MW11601, MW11501, MW09001, MW09101
 90281: MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901,
 MW11001

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
 NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

COMPOUND	ADVISORY LIMITS		RPD
	%R WATER		WATER
ALL COMPOUNDS	80%-120%		+/-20

TABLE 2 - 21

GC/MS VOLATILE ORGANICS COMPOUNDS
 SOIL SAMPLE MATRIX SPIKE\MATRIX SPIKE DUPLICATES
 NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG U1105		
		MS	MSD	
SAMPLE SB10801		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/Kg	128	134	5
TRICHLOROETHENE	ug/Kg	90	92	2
BENZENE	ug/Kg	115	118	3
TOLUENE	ug/Kg	114	117	3
CHLOROBENZENE	ug/Kg	116	120	3

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1105

90205: SB08801
 90209: SB10201, SB10401
 90217: SB09001
 90218: SB10601, SB10601DUP, SB09401
 90222: SB10801
 90223: SB09601, SB10001
 90224: SB09801

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
1,1-DICHLOROETHENE	59%-172%		22
TRICHLOROETHENE	62%-137%		24
BENZENE	66%-142%		21
TOLUENE	59%-139%		21
CHLOROBENZENE	60%-133%		21

TABLE 2 - 22

**SEMIVOLATILE ORGANICS COMPOUNDS
SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG U1105		
		MS	MSD	
SVOA COMPOUNDS		UNITS	%R	%RPD
PHENOL	ug/Kg	82	*91	10
2-CHLOROPHENOL	ug/Kg	88	97	10
1,4-DICHLOROBENZENE	ug/Kg	78	85	9
N-NITROSO-DI-N-PROP.(1)	ug/Kg	73	79	8
1,2,4-TRICHLOROBENZENE	ug/Kg	86	94	9
4-CHLORO-3-METHYLPHENOL	ug/Kg	86	95	10
ACENAPHTHENE	ug/Kg	88	94	7
4-NITROPHENOL	ug/Kg	79	89	12
2,4-DINITROTOLUENE	ug/Kg	*91	*101	10
PENTACHLOROPHENOL	ug/Kg	96	93	3
PYRENE	ug/Kg	81	89	9

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1105

- 90205: SB08801
- 90209: SB10201, SB10401
- 90217: SB09001
- 90218: SB10601, SB10601DUP, SB09401
- 90222: SB10801
- 90223: SB09601, SB10001
- 90224: SB09801

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		
PHENOL	26%-90%		35
2-CHLOROPHENOL	25%-102%		50
1,4-DICHLOROBENZENE	28%-104%		27
N-NITROSO-DI-N-PROP.(1)	41%-126%		38
1,2,4-TRICHLOROBENZENE	38%-107%		23
4-CHLORO-3-METHYLPHENOL	26%-103%		33
ACENAPHTHENE	31%-137%		19
4-NITROPHENOL	11%-114%		50
2,4-DINITROTOLUENE	28%-89%		47
PENTACHLOROPHENOL	17%-109%		47
PYRENE	35%-142%		36

TABLE 2 - 23

**DIOXIN/FURAN
SOIL SAMPLE MATRIX SPIKE/ DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE SB10801</i> MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		U1105		
		MS	MSD	
		%R	%R	RPD
DIOXIN/FURAN COMPOUNDS	UNITS			
2378-TCDD	pg/uL	61.0	66.6	8.8
2378-TCDF	pg/uL	107.0	90.3	16.9
12378-PeCDD	pg/uL	92.0	91.8	0.2
12378-PeCDF	pg/uL	97.2	89.2	8.6
23478-PeCDF	pg/uL	92.0	87.8	4.7
123478-HxCDD	pg/uL	86.8	76.6	12.5
123789-HxCDD	pg/uL	91.0	91.4	0.4
123678-HxCDD	pg/uL	91.4	82.2	10.6
123478-HxCDF	pg/uL	85.4	89.4	4.6
123678-HxCDF	pg/uL	83.8	85.2	1.7
123789-HxCDF	pg/uL	86.2	88.6	2.7
234678-HxCDF	pg/uL	86.8	88.6	2.1
1234678-HpCDD	pg/uL	79.4	76.0	4.4
1234678-HpCDF	pg/uL	94.0	90.0	4.3
1234789-HpCDF	pg/uL	96.8	87.2	10.4
OCDD	pg/uL	71.0	98.2	4.0
OCDF	pg/uL	64.1	94.7	0.9

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1105

931180: SB08801, SB10201, SB10401, SB09001

93-11205: SB10601, SB10601DUP, SB09401, SB10801, SB09601, SB10001,
SB09801

%R AND RPD'S WERE DEEMED IN CONTROL BY THE REVIEWER.

TABLE 2 - 24

PESTICIDES/PCBS

SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES

NAS JACKSONVILLE RI/FS FOR OU-1

MS = MATRIX SPIKE <i>SAMPLE SB10801</i> MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG U1105		
		MS	MSD	
		%R	%R	%RPD
PEST COMPOUNDS	UNITS			
gamma-BHC (Lindane)	ug/Kg	106	106	0
Heptachlor	ug/Kg	101	102	1
Aldrin	ug/Kg	98	100	2
Dieldrin	ug/Kg	107	108	1
Endrin	ug/Kg	110	111	1
4,4'-DDT	ug/Kg	112	114	2

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG AND ASSOCIATED SAMPLES

SDG U1105

- 90205: SB08801
- 90209: SB10201, SB10401
- 90217: SB09001
- 90218: SB10601, SB10601DUP, SB09401
- 90222: SB10801
- 90223: SB09601, SB10001
- 90224: SB09801

COMPOUND	ADVISORY LIMITS		RPD
	% R SOIL		SOIL
gamma-BHC(Lindane)	46%-127%		50
HEPTACHLOR	35%-130%		31
ALDRIN	34%-132%		43
DIELDRIN	31%-134%		38
ENDRIN	42%-139%		45
4,4'-DDT	23%-134%		50

TABLE 2 - 25

**METALS AND CYANIDE
SOIL SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE SB10801 MD = MATRIX DUPLICATE SAMPLE SB10801 RPD = RELATIVE PERCENT DIFFERENCE		SDG U1105	
		MS	MD
		%R	RPD
METALS COMPOUNDS	UNITS		
ALUMINUM	mg/Kg	NR	15.6
ANTIMONY	mg/Kg	90.3	NC
ARSENIC	mg/Kg	108	3.4
BARIUM	mg/Kg	88.4	0.8
BERYLLIUM	mg/Kg	87.1	11.4
CADMIUM	mg/Kg	92.4	200.0
CALCIUM	mg/Kg	NR	0.4
CHROMIUM	mg/Kg	86.2	13.7
COBALT	mg/Kg	82.4	200.0
COPPER	mg/Kg	89.6	39.9
IRON	mg/Kg	NR	8.4
LEAD	mg/Kg	*44.0	NC
MAGNESIUM	mg/Kg	NR	1.7
MANGANESE	mg/Kg	84.0	3.9
MERCURY	mg/Kg	*134	NC
NICKEL	mg/Kg	86.9	NC
POTASSIUM	mg/Kg	NR	200
SELENIUM	mg/Kg	0	NC
SILVER	mg/Kg	77.6	NC
SODIUM	mg/Kg	NR	8.3
THALLIUM	mg/Kg	78.6	17.5
VANADIUM	mg/Kg	82.1	8.0
ZINC	mg/Kg	84.3	4.7
CYANIDE	mg/Kg	*40.4	NC

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1105

- 90205: SB08801
- 90209: SB10201, SB10401
- 90217: SB09001
- 90218: SB10601, SB10601DUP
- 90222: SB10801
- 90223: SB09601, SB10001
- 90224: SB09801

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	75%-125%		+/-20 OR +/-CRDL

+/- CRDL = RPD Limit applicable only on values 5 times the Contract
Required Detection Limit (CRDL)

SOME VALUES WERE ROUNDED TO LIMIT SIGNIFICANT FIGURES TO THREE (3)

TABLE 2 - 26

**TOTAL PETROLEUM HYDROCARBONS
SOIL SAMPLE MATRIX SPIKE/MATRIX DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE SB10801</i>		SDG U1105	
MD = MATRIX DUPLICATE		MS	MD
RPD = RELATIVE PERCENT DIFFERENCE		%R	RPD
TPH	UNITS		
TOTAL PETROLEUM HYDROCARBON	mg/Kg	90.1	ND

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1105

- 90205: SB08801
- 90209: SB10201, SB10401
- 90217: SB09001
- 90218: SB10601, SB10601DUP, SB09401
- 90222: SB10801
- 90223: SB09601, SB10001
- 90224: SB09801
- 90254: MW00081EB, MW09301, MW10201

• DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

NC DENOTES THAT BOTH SAMPLES ARE NON-DETECT AND A RPD CANNOT BE CALCULATED.
NR DENOTES THAT A MATRIX SPIKE RECOVERY CALCULATION IS NOT REQUIRED.

COMPOUND	ADVISORY LIMITS		RPD
	%R SOIL		SOIL
ALL COMPOUNDS	80%-120%		+/-20

matrix. Serial dilution results are presented in Appendix B. The results can be found in Table B-1 for total metals in the water matrix, Table B-2 for dissolved metals in the water matrix, and Table B-3 for the soil matrix.

2.1 Water Matrix

The assessment of groundwater matrix environmental samples and associated duplicates for precision is provided in Tables 2-1 through 2-7. No target compounds were detected in either the water samples or associated duplicates for the pesticide/PCBs (Table 2-3). Therefore, no precision assessment based on field duplicate reproducibility was possible for this parameter.

The volatile analysis of the field duplicate pairs of samples MW10601, MW11201, MW10801, and MW08801 exhibited no positive results (Table 2-1). The low concentration volatile (LC VOA) analysis of the field duplicate pair of sample MW03202 (SDG U1106, G44823) exhibited two (2) compounds with positive results which were non-compliant for duplicate precision (Table 2-1). The compounds were benzene and isopropylbenzene. Neither of the compounds were detected in the original sample, and both were detected in the field duplicate sample at concentrations above the CRQL. The LC VOA method (524.2) utilized a CRQL of 0.50 ug/L. Precision measurements become more difficult at trace levels because the method is more sensitive to false positives. The non-compliance for benzene and isopropylbenzene may be attributed to laboratory and/or field inconsistencies. Assessment of the calibrations associated with the analysis of the field duplicate pair indicate that all criteria was met (Appendix A, Table A-1).

The semivolatile analysis of the samples MW10601, MW11201, MW10801, and MW08801 and their associated duplicates exhibited positive results for the compound bis(2-ethylhexyl)phthalate in the sample and/or the associated duplicate (Table 2-2). The compound was detected below the compound CRQLs in both the original sample and the field duplicate. This compound exceeded the maximum RPD for waters in each of the samples. The non-compliance can be attributed to the low concentrations detected in the samples. The compound diethylphthalate exhibited a non-compliant RPD in the field duplicate pair of sample MW08801. The compound was detected in the field duplicate sample at a concentration below the CRQL and was not detected in the original sample. Further, the phthalates are a common laboratory contaminants. Their presence in the samples and field duplicates could be affected by their common presence as laboratory artifacts. The non-compliance for the compound diethylphthalate is attributed to the low concentrations detected and the compounds common presence as a laboratory artifact. Assessment of the initial and continuing calibration criteria for the compounds exhibiting non-compliant RPDs indicates that the system was "in-control" (Appendix A, Table A-2).

Eleven (11) of the fourteen (14) total metals target analytes requiring RPD calculation in the field sample and/or the associated duplicate in the total metals analysis of sample MW10601 exhibited non-compliant RPDs (Table 2-4). The analytes exhibiting non-compliant RPDs were aluminum, barium, beryllium, calcium, chromium, iron, lead, magnesium, manganese, vanadium and zinc. The analytes barium, beryllium, and vanadium were detected at concentrations less than the CRDLs in both the original sample and the field duplicate. The non-compliance for the analytes barium, beryllium and vanadium can be attributed to the low concentrations detected. The non-compliance for the analyte calcium was slight (23%) and may be attributed to laboratory inconsistencies. The analytes chromium, iron, magnesium and zinc were detected in the preparation blank associated with the field duplicate pair (Table 4-22). The analyte zinc was qualified as non-detect at the reported value in the original sample due to method blank contamination. However, the concentration of zinc in the field duplicate sample was above the action limit (13.5 ug/L) for qualification. The other analytes were above the action limits for qualification in both the original samples and the field duplicate samples. However, the non-compliance for the analytes chromium,

iron, magnesium, and zinc can be attributed to laboratory contamination. The non-compliance for the analytes aluminum, manganese, and lead may be attributed to laboratory and/or field inconsistencies. Assessment of the serial dilution criteria for the non-compliant compounds indicates that they were "in-control" for all analytes except barium (Appendix B, Table B-1). Positive results reported for barium in associated samples were appropriately qualified as estimated, J, due to the non-compliant serial dilution result. Qualifications based on serial dilution results are discussed in Section 6.

Nine (9) of the thirteen (13) target analytes requiring RPD calculation in the metals analysis of the field duplicate pair of sample MW011201 exhibited non-compliant RPDs (Table 2-4). The non-compliant compounds were aluminum, beryllium, calcium, chromium, copper, iron, magnesium, vanadium, and zinc. The analytes beryllium, copper, vanadium, and zinc were detected at concentrations below the CRDLs in both the original sample and the duplicate. The analyte chromium was detected in the original sample above the CRDL and in the field duplicate sample below the CRDL. The non-compliance for the analytes beryllium, copper, vanadium, zinc, and chromium can be attributed to the low concentrations detected. The non-compliance for the analyte calcium was slight (23%) and may be attributed to laboratory and/or field inconsistencies. The analytes aluminum and iron exhibited non-compliance in the matrix duplicate pair of sample MW011201 also. This indicates possible laboratory inconsistencies in the preparation step or non-homogenous sample aliquots. The non-compliance for the analytes aluminum and iron is attributed to laboratory inconsistencies. The non-compliance for the analyte magnesium may be attributed to laboratory and/or field inconsistencies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-1).

One (1) of the thirteen (13) target analytes requiring RPD calculation in metals analysis of the field duplicate pair of sample MW10801 exhibited a non-compliant RPD (Table 2-4). The analyte exhibiting non-compliant RPD was chromium. The analyte chromium was detected at concentrations below the CRDLs in the original sample and the duplicate. The non-compliance for the analyte chromium is attributed to the low concentrations detected. Assessment of the serial dilution criteria for the non-compliant analyte indicates that it was "in-control" (Appendix B, Table B-1).

Eight (8) of the thirteen (13) target analytes requiring RPD calculation in metals analysis of the field duplicate pair of sample MW08801 exhibited non-compliant RPDs (Table 2-4). The analytes exhibiting non-compliant RPDs were aluminum, barium, calcium, chromium, magnesium, selenium, vanadium, and zinc. The analytes barium, selenium, vanadium, and zinc were detected in the original samples and the field duplicate at concentrations below the CRDLs. The non-compliance for the analytes barium, selenium, vanadium, and zinc can be attributed to the low concentrations detected. The non-compliance for the analytes calcium and magnesium was slight and could be attributed to field and/or laboratory inconsistencies. The non-compliance for the analyte aluminum may be attributed to field and/or laboratory inconsistencies. Assessment of the serial dilution criteria for the non-compliant analytes indicates that they were "in-control" (Appendix B, Table B-1).

All of the positive results detected in the dissolved metals analysis of field duplicate pairs of samples MW11201 and MW08801 exhibited acceptable RPDs (Table 2-5). The dissolved metals analysis of the field duplicate pair of sample MW10801 exhibited one (1) analyte with a non-compliant RPD, potassium. The analyte was detected at concentrations below the CRDL. The non-compliance for potassium is attributed to the low concentrations detected. Assessment of the serial dilution criteria for the non-compliant analyte indicates that it was "in-control" (Appendix B, Table B-1).

The radiological gamma-scan analysis of the field duplicate pair of sample MW08801 exhibited a positive result for one (1) nuclide, Bismuth (Bi)-212. The nuclide was non-compliant for precision because it was detected in the field duplicate sample but not in the original sample. The concentration reported in the field duplicate sample, 19.4 pci/L, was not much above the reporting limit in the original sample. The counting error is relatively greater when the levels of activity are very low. Therefore, the non-compliance for Bi-212 can be attributed to the low level of activity reported in the field duplicate sample.

The assessment of precision based on the reproducibility of results between matrix spike and matrix spike duplicate (organic fractions), or matrix duplicate (metals fraction) pairs are provided in Tables 2-15 through 2-20. The reproducibility for MS/MSD/MD pairs was acceptable for the volatiles, the semivolatiles, the dissolved metals, and the TPH fractions (Tables 2-15, 2-16, 2-19, and 2-20).

The pesticide/PCB analysis of the MS/MD pair of sample MW11201 exhibited three compounds with non-compliant RPDs. The non-compliant compounds were lindane, heptachlor, and aldrin. The non-compliance may be attributed to laboratory inconsistencies. Based on the assessment of additional QC criteria, the data did not require qualification.

One (1) of the matrix duplicate (MD) pairs, sample MW11201, analyzed for the total metals fraction exhibited non-compliant RPDs for the analytes aluminum and lead (Table 2-18, page 2-28). The RPD values were 72.1%D and 23.2 %D, respectively. The non-compliance for lead was slight and could be attributed to laboratory inconsistencies. The %D for aluminum was high. The non-compliance for aluminum could be the result of an inhomogenous sample split. However, the matrix spike recovery for the analyte was high also (576%). Qualifications based on recovery are discussed in Section 3, Accuracy. Aluminum results in samples associated with SDGs U1107 and U1108 may be bias high. The reported aluminum and lead results in samples associated with this matrix duplicate were appropriately qualified as estimated, J or UJ.

Based on assessment of duplicate precision evaluation criteria, the water matrix analytical data was acceptable for each SDG, with the noted potential for bias. The majority of the non-compliance is attributed to low concentrations of target analytes/compounds/nuclides detected in the samples. The non-compliance did not result in sample data qualification except in the single noted case of a non-compliant matrix duplicate RPD for aluminum and iron in the total metals analysis of the MD pair for sample MW11201.

2-2 Soil Matrix

The assessment of soil matrix environmental samples and associated duplicates for precision is provided in Tables 2-8 through 2-14. No target compounds were detected in either the soil samples or associated duplicates for the volatiles fraction (Table 2-8), the semivolatiles fraction (Table 2-9), the pesticides/PCBs fraction (Table 2-11), and the total petroleum hydrocarbon fraction (Table 2-13). Therefore, no precision assessment based on field duplicate reproducibility was possible for this fraction.

The dioxin/furan analysis of the field duplicate pair of sample SB10601 exhibited two (2) congeners with positive results. Both of the congeners, 1,2,3,4,6,7,8-HpCDD and OCDD, exhibited acceptable precision. The congener OCDD was reported as a MPC (maximum possible concentration) in the field duplicate sample. A result is reported as MPC is because not all identification criteria is met.

The metals analysis of the field duplicate pair of sample SB10601 exhibited positive results for fourteen (14) analytes. All of the reported analytes exhibited acceptable precision (Table 2-12).

The radiological gamma scan analysis of the field duplicate pair SB10601 exhibited non-compliant RPDs for the nuclides Bismuth-212 and Uranium-235 (Table 2-14). The nuclide Bismuth-212 was detected in the field duplicate, but not in the original sample. The nuclide Uranium-235 was detected in the original sample but not in the field duplicate. The counting method is very sensitive to the sample geometry. For example, if the calibration standard is presented as 272 grams in a cylinder, then the geometry of the field samples should mimic this as closely as possible. The data validator noted that the field sample weights fluctuated between 138.9 grams to 274.5 grams. Further, the counting error is relatively greater when the levels of activity are low. The non-compliance for the nuclides Bismuth-212 and Uranium-235 can be attributed to laboratory inconsistencies as well as to the low levels of activity reported.

The assessment of precision based on the reproducibility of results between matrix spike and matrix spike duplicate (organic fractions), or matrix duplicate (metals fraction) pairs are provided in Tables 2-21 through 2-26. The reproducibility for MS/MSD/MD pairs was acceptable for all fractions analyzed.

Based on assessment of duplicate precision evaluation criteria, the soil matrix analytical data was acceptable for each SDG.

3.0 ACCURACY

The assessment of accuracy is evaluated by comparison of the percent recoveries (%R) computed from the known concentration of analyte spikes and their recovered concentration versus the analytical method acceptance criteria. Spike recoveries provide an indication of bias, where the reported data may either overestimate or underestimate the actual concentration of detected compounds and/or the detection limits. Recoveries outside acceptable criteria may be caused by factors such as matrix interference, poor analytical precision, or instrument calibration.

The following Sections summarize the evaluation of analytical accuracy for the water matrix and the soil matrix for the following analytical groups:

- GC/MS volatile organic compounds (GC/MS VOCs);
- semivolatile organic compounds (SVOCs);
- dioxin/furans;
- pesticides, PCBs;
- total metals, and
- total petroleum hydrocarbon (TPH).

Accuracy was assessed using MS and MSD samples for organic analyses and MS samples for inorganic analyses for the water and soil samples, as well as surrogate compound recoveries for those analytical fractions which utilize them. Accuracy was assessed for the dioxin/furan fraction using the internal standard recoveries. The results of the evaluation of accuracy for the MS/MSD samples are provided in Tables 2-15 through 2-20 for the water matrix and 2-21 through 2-26 for the soil matrix. The results of the evaluation of accuracy for the surrogates in the samples are provided in Tables 3-1 through 3-3 for the water matrix and Tables 3-4 through 3-6 for the soil/sediment matrix. The results of the evaluation of accuracy for the internal standard recoveries in the dioxin/furan fraction are provided in Table 3-7 for the water matrix and Table 3-8 for the soil matrix. There were no QC spikes or matrix spikes performed for the radiological fraction.

3.1 Water Matrix

The MS/MSD sample pairs for the water matrix analyzed for total petroleum hydrocarbons exhibited "in-control" recovery results (Table 2-20).

The low concentration volatile MS/MSD of sample MW00007FB exhibited nine (9) non-compliant compound recoveries (Table 2-15, page 2-18). All nine (9) recoveries were high. Spiking for all target compounds is not common. Eighty-four percent (84%) of the spiked compounds exhibited acceptable recoveries. However, the low concentration volatiles method does not require the analysis of matrix spike samples. A laboratory control standard (LCS) is required with each analytical batch. The LCSs analyzed with the volatiles samples were within control limits for all compounds. Based on the assessment of other QC criteria did not result in sample result qualification.

The GC/MS volatile analysis of the MS/MSD pair of sample MW10601 exhibited one (1) compound, trichloroethene, which was recovered above the QC limit in the MS. The recovery of the compound was acceptable in the MSD. Therefore, based on the assessment of additional QC criteria the non-compliant recovery did not result in sample data qualification.

The semivolatile MS/MSDs of samples MW11201 and MW10801 exhibited two (2) compounds, pentachlorophenol and 4-nitrophenol, which were recovered above the QC limits in both the MS and/or the MSD (Table 2-16, page 2-23 & 2-24). The semivolatile MS/MSD of sample MW10601

TABLE 3.1
SURROGATE % RECOVERIES
GC/MS VOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT	
90217	SB00040TB (1)	103	96	95	0	
	SB00075EB (1)	103	96	94	0	
90222	SB00042TB (1)	102	94	94	0	
	SB00077EB (1)	104	97	98	0	
90223	SB00043TB (1)	103	95	95	0	
	SB00078EB (1)	100	94	96	0	
90224	SB00044TB (1)	98	97	97	0	
	SB00079EB (1)	99	99	98	0	
90254	MW00046TB	109	113	105	0	
	MW00081EB	108	114	103	0	
	MW09301	105	114	102	0	
	MW10201	107	114	107	0	
90252 # (G44822)	MW00007FB	103	104	NA	0	
	MW00045TB	99	101	NA	0	
	MW00080EB	106	106	NA	0	
	MW01402	106	105	NA	0	
	MW01501	106	110	NA	0	
	MW01602	100	104	NA	0	
	MW01702	100	102	NA	0	
	MW02102	104	106	NA	0	
	MW02602	95	99	NA	0	
	MW00007FBMS	109	112	NA	0	
	(G44823)	MW02702	99	99	NA	0
		MW03002	105	105	NA	0
		MW03102	105	105	NA	0
		MW03202	102	102	NA	0
MW03202DUP		103	103	NA	0	
MW02702MS		104	104	NA	0	
90258	MW00047TB	110	115	101	0	
	MW00048TB	98	104	103	0	
	MW00082EB	100	105	111	0	
	MW00083EB	95	104	102	0	
	MW09201	97	104	99	0	
	MW09401	98	114	110	0	
	MW09401DL	109	112	105	0	
	MW09501	99	103	106	0	
	MW09601	104	114	100	0	
	MW10001	96	104	98	0	
	MW10101	96	106	98	0	
	MW10501	96	102	100	0	
	MW10601	97	102	104	0	
	MW10601DUP	95	102	100	0	
	MW10601MS	96	100	105	0	
MW10601MSD	95	101	103	0		
90259	MW50001	96	95	92	0	
	MW50101	96	97	90	0	

TABLE 3.1, CONTINUED
SURROGATE % RECOVERIES
GC/MS VOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
90283	MW00052TB	99	98	90	0
	MW00087EB	94	98	92	0
	MW08401	99	96	90	0
	MW08501	96	98	92	0
	MW11101	94	95	92	0
	MW11201	94	96	92	0
	MW11201DUP	96	99	92	0
	MW11301	98	98	91	0
	MW11401	96	97	93	0
	MW11201MS	100	99	92	0
MW11201MSD	96	100	92	0	
90273	MW00049TB	100	96	99	0
90273	MW00049TB	100	96	99	0
	MW00084EB	98	96	100	0
	MW09701	97	92	83	0
	MW10301	99	91	82	0
	MW10401	99	91	83	0
	MW10701	98	92	80	0
	MW10801	99	97	96	0
	MW10801DUP	98	91	84	0
	MW10801MS	100	95	81	0
	MW10801MSD	98	94	80	0
90276	MW00050TB	95	91	83	0
	MW00085EB	97	92	84	0
	MW09001	99	93	85	0
	MW09101	97	92	84	0
	MW09801	99	93	84	0
	MW09901	100	92	85	0
	MW11501	98	92	86	0
	MW11601	99	92	84	0
90281	MW00051TB	89	95	100	0
	MW00086EB	98	96	97	0
	MW08601	95	95	96	0
	MW08701	94	96	94	0
	MW08801	98	96	100	0
	MW08801DUP	98	96	100	0
	MW08901	94	97	97	0
	MW10901	89	93	97	0
	MW11001	98	97	91	0

SMC1 = TOLUENE-D8 QC LIMITS 88% - 110%
SMC1 - 1,2-DICHLOROBENZENE QC LIMITS 87% - 107%
SMC2 = BROMOFLUOROBENZENE QC LIMITS 86% - 115%
SMC3 = 1,2-DICHLOROETHANE-D4 QC LIMITS 76% - 114%

# SAMPLES	% REC IN	%REC OUT	% TOTAL IN
85	239	0	100.0%

(1) INDICATES QC BLANKS ASSOCIATED WITH SOIL SDGS.
NA - INDICATES SURROGATE COMPOUND NOT APPLICABLE TO METHOD (524.2).

TABLE 3 - 2

**SURROGATE % RECOVERIES
SEMIVOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	S1	S2	S3	S4	S5	S6	S7	S8	TOTAL OUT
U1105	SB00006FB (1)	101	111	*149	101	95	102	97	88	1
	SB00073EB (1)	102	114	*148	99	97	97	98	90	1
	SB00074EB (1)	102	110	*142	97	93	98	95	86	1
	SB00075EB (1)	97	104	108	91	89	94	93	83	0
	SB00076EB (1)	99	97	136	97	96	119	94	85	0
	SB00077EB (1)	99	96	120	94	93	106	92	87	0
	SB00078EB (1)	101	101	132	95	97	108	92	86	0
	SB00079EB (1)	102	100	129	99	98	103	96	90	0
90254	MW00081EB	87	87	89	76	75	85	80	80	0
	MW09301	86	85	42	74	71	86	78	80	0
	MW10201	86	82	42	79	77	92	81	81	0
90252	MW00007FB	83	83	94	74	73	86	76	78	0
90259	MW00082EB	92	91	97	84	83	87	84	85	0
	MW00083EB	92	92	109	82	82	81	84	83	0
	MW09201	94	89	88	85	81	81	85	87	0
	MW09401	92	86	53	83	83	75	84	87	0
	MW09501	82	70	*14	78	75	81	79	77	1
	MW09601	91	85	*20	85	82	79	85	85	1
	MW10001	88	88	83	82	77	87	81	82	0
	MW10101	73	70	*31	72	65	75	68	69	1
	MW10501	90	88	46	81	80	82	81	83	0
	MW10601	94	92	69	86	86	89	86	89	0
	MW10601DUP	87	86	55	80	80	84	80	82	0
	MW10601MS	91	88	59	83	79	93	86	84	0
	MW10601MSD	92	87	55	85	81	89	88	85	0
90258	MW50001	95	98	118	87	86	82	86	90	0
	MW50101	84	85	109	83	79	87	84	83	0
	MW50101DL	81	84	104	84	79	76	83	82	0
90283	MW00087EB	89	98	80	85	77	101	89	81	0
	MW08401	89	90	121	79	66	96	84	73	0
	MW08501	84	85	108	80	72	93	84	65	0
	MW11101	84	93	86	80	74	93	86	78	0
	MW11201	70	80	100	66	62	78	72	63	0
	MW11201DUP	88	92	105	86	79	99	88	73	0
	MW11301	88	101	86	72	62	89	81	81	0
	MW11401	89	99	110	77	65	96	84	81	0
MW11201MS	88	89	112	86	77	96	86	73	0	
MW11201MSD	82	83	106	81	71	97	79	60	0	

TABLE 3 - 2, CONTINUED

**SURROGATE % RECOVERIES
SEMIVOLATILE WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	S1	S2	S3	S4	S5	S6	S7	S8	TOTAL OUT
90273	MW00084EB	95	91	112	90	87	103	94	73	0
	MW09701	89	98	90	84	79	97	88	77	0
	MW10301	90	96	109	84	80	103	88	76	0
	MW10401	86	96	79	84	80	99	87	81	0
	MW10701	91	101	78	80	79	100	88	84	0
	MW10801	93	95	95	90	83	101	91	78	0
	MW10801DUP	88	97	88	82	77	93	85	80	0
	MW10801MS	95	90	88	93	89	97	90	74	0
MW10801MSD	92	84	82	89	83	95	88	69	0	
90276	MW00085EB	90	95	97	89	84	98	92	76	0
	MW09001	90	98	56	88	84	98	92	82	0
	MW09101	92	101	76	86	80	94	91	85	0
	MW09801	89	91	97	86	82	95	90	71	0
	MW09901	88	101	81	84	77	93	89	81	0
	MW11501	89	99	69	83	78	93	87	85	0
	MW11601	89	100	66	84	79	94	90	86	0
90281	MW00086EB	92	101	104	86	82	96	90	80	0
	MW08601	86	90	111	79	70	94	81	72	0
	MW08701	80	87	120	71	63	83	78	72	0
	MW08801	88	93	85	88	81	94	92	70	0
	MW08801DUP	89	98	83	84	79	91	88	76	0
	MW08901	97	43	76	70	61	58	87	73	0
	MW10901	91	98	129	78	69	93	86	83	0
	MW11001	92	96	105	83	74	97	88	76	0

(1) - FIELD QA/QC FOR SOIL SAMPLES

- | | | |
|-----------------------------|----------------------|------------|
| S1 = NITROBENZENE-D5 | QC LIMITS 35% - 114% | |
| S2 = 2-FLUOROBIPHENYL | QC LIMITS 43% - 116% | |
| S3 = TERPHENYL-D14 | QC LIMITS 33% - 141% | |
| S4 = PHENOL-D5 | QC LIMITS 10% - 110% | |
| S5 = 2-FLUOROPHENOL | QC LIMITS 21% - 110% | |
| S6 = 2,4,6-TRIBROMOPHENOL | QC LIMITS 10% - 123% | |
| S7 = 2-CHLOROPHENOL-D4 | QC LIMITS 33% - 110% | (ADVISORY) |
| S8 = 1,2-DICHLOROBENZENE-D4 | QC LIMITS 16% - 110% | (ADVISORY) |

D - INDICATES SURROGATE DILUTED OUT

* - INDICATES VALUE OUTSIDE QC LIMITS

# SAMPLES	% REC IN	% REC OUT	% TOTAL IN
72	491	6	98.8%

TABLE 3 - 3

**SURROGATE % RECOVERIES
PESTICIDE/PCB WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	TCX1	TCX2	DCB1	DCB2	TOTAL OUT
U1105	SB00006FB (1)	85	78	94	97	0
	SB00073EB (1)	76	66	84	86	0
	SB00074EB (1)	88	88	92	95	0
	SB00075EB (1)	63	62	92	90	0
	SB00076EB (1)	*38	*40	62	65	2
	SB00077EB (1)	*42	*40	80	82	2
	SB00078EB (1)	68	64	68	70	0
	SB00079EB (1)	80	76	83	85	0
90254	MW00081EB	74	72	94	85	0
	MW09301	76	73	69	63	0
	MW10201	84	76	*41	*38	2
90252	MW00007FB	88	83	106	97	0
90259	MW00082EB	104	93	112	104	0
	MW00083EB	94	82	109	101	0
	MW09201	85	79	76	70	0
	MW09401	88	80	80	74	0
	MW09501	126	74	74	74	0
	MW09601	*58	*52	66	62	2
	MW10001	96	92	72	72	0
	MW10101	98	90	81	78	0
	MW10501	106	97	63	*58	1
	MW10601	106	98	70	65	0
	MW10601DUP	104	94	73	68	0
	MW10601MS	90	82	61	*58	1
MW10601MSD	84	76	71	66	0	
90258	MW50001	97	87	104	94	0
	MW50101	114	98	92	82	0
	MW50101DL	98	84	84	78	0
90283	MW00087EB	70	66	86	74	0
	MW08401	61	*55	98	84	1
	MW08501	64	*58	*45	*39	3
	MW11101	*54	*47	80	68	2
	MW11201	*54	*50	70	60	2
	MW11201DUP	*56	*47	*56	*48	4
	MW11301	86	93	96	83	0
	MW11401	60	*57	87	76	1
	MW11201MS	*33	*31	*42	*37	4
MW11201MSD	*56	*50	*54	*46	4	

TABLE 3 - 3, CONTINUED

**SURROGATE % RECOVERIES
PESTICIDE/PCB WATER SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	TCX1	TCX2	DCB1	DCB2	TOTAL OUT
90273	MW00084EB	96	81	109	92	0
	MW09701	81	66	73	63	0
	MW10301	76	68	76	67	0
	MW10401	98	72	*46	*40	2
	MW10401RE	102	78	65	*56	1
	MW10701	91	76	83	72	0
	MW10801	84	72	75	64	0
	MW10801DUP	86	74	84	74	0
	MW10801MS	91	78	64	*54	1
MW10801MSD	84	70	50	*43	2	
90276	MW00085EB	64	*50	87	74	1
	MW09001	96	91	78	71	0
	MW09101	110	99	119	106	0
	MW09801	82	66	*56	*48	2
	MW09801RE	88	64	*57	*47	2
	MW09901	74	69	103	96	0
	MW11501	94	92	96	75	0
	MW11601	77	79	84	87	0
90281	MW00086EB	76	68	88	74	0
	MW08601	84	73	87	77	0
	MW08701	74	64	99	88	0
	MW08801	93	67	74	62	0
	MW08801DUP	88	66	64	*54	1
	MW08901	89	72	91	90	0
	MW10901	80	73	86	75	0
	MW11001	80	74	86	76	0

(1) - FIELD QA/QC FOR SOIL SAMPLES

TCX = TETRACHLORO-M-XYLENE QC LIMITS 60% - 150%
DCB = DECACHLOROBIPHENYL QC LIMITS 60% - 150%

D - INDICATES SURROGATE DILUTED OUT
* - INDICATES VALUE OUTSIDE QC LIMITS

TCX1 - COLUMN 1 DCB 1 - COLUMN 1
TCX2 - COLUMN 2 DCB 2 - COLUMN 2

# SAMPLES	% REC IN	%REC OUT	% TOTAL IN
64	213	43	83.2%

TABLE 3 - 4

**SURROGATE % RECOVERIES
GC/MS VOLATILE SOIL SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
90205	SB08801	102	96	98	0
90209	SB10201	101	96	101	0
	SB10401	102	96	102	0
90217	SB09001	104	95	97	0
90222	SB10801	103	96	96	0
	SB10801MS	105	97	94	0
	SB10801MSD	104	96	95	0
90223	SB09601	102	95	98	0
	SB10001	103	95	95	0
90224	SB09801	105	91	96	0
U1105	SB09401	101	104	92	0
	SB10601	100	101	90	0
	SB10601DUP	101	101	95	0

SMC1 = TOLUENE-D8

QC LIMITS 84% - 138%

SMC2 = BROMOFLUOROBENZENE

QC LIMITS 59% - 113%

SMC3 = 1,2-DICHLOROETHANE-D4

QC LIMITS 70% - 121%

# SAMPLES	% REC IN	%REC OUT	% TOTAL IN
13	39	0	100%

TABLE 3 - 5
SURROGATE % RECOVERIES
SEMIVOLATILE SOIL SAMPLES
NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	S1	S2	S3	S4	S5	S6	S7	S8	TOTAL OUT
90205	SB08801	93	98	119	86	110	98	87	80	0
90209	SB10201	91	95	112	87	113	106	87	77	0
	SB10401	88	92	108	84	114	101	83	74	0
90217	SB09001	92	98	118	88	121	105	88	79	0
90222	SB10801	47	42	47	48	51	36	43	40	0
	SB10801MS	86	95	117	84	106	105	85	74	0
	SB10801MSD	94	103	128	92	115	117	92	81	0
90223	SB09601	92	100	123	87	114	100	80	76	0
	SB10001	93	101	124	91	120	114	91	80	0
90224	SB09801	85	74	88	70	57	25	57	73	0
90218	SB09401	92	98	122	86	116	90	82	79	0
	SB10601	94	97	122	91	*122	105	91	80	1
	SB10601DUP	91	100	123	87	116	101	82	78	0

ALL SAMPLES ANALYZED UNDER SDG #U1105.

S1 = NITROBENZENE-D5	QC LIMITS 23% - 120%	
S2 = 2-FLUOROBIPHENYL	QC LIMITS 30% - 115%	
S3 = TERPHENYL-D14	QC LIMITS 18% - 137%	
S4 = PHENOL-D5	QC LIMITS 24% - 113%	
S5 = 2-FLUOROPHENOL	QC LIMITS 25% - 121%	
S6 = 2,4,6-TRIBROMOPHENOL	QC LIMITS 19% - 122%	
S7 = 2-CHLOROPHENOL-D4	QC LIMITS 20% - 130%	(ADVISORY)
S8 = 1,2-DICHLOROBENZENE-D4	QC LIMITS 20% - 1300%	(ADVISORY)

D - INDICATES SURROGATES DILUTED OUT

* - INDICATES VALUE OUTSIDE QC LIMITS

# SAMPLES	% REC IN	%REC OUT	% TOTAL IN
13	103	1	99.0%

TABLE 3 - 7

**WATER SAMPLE INTERNAL STANDARDS % RECOVERIES
DIOXIN/FURAN
NAS JACKSONVILLE RI/FS FOR OU-1**

	SB00073EB	SB00006FB	SB00074EB	SB00075EB	SB00076EB	SB00077EB	SB00078EB	SB00078EB
I.S. COMPOUND								
13C-2378-TCDD	31.9	79.2	59	70.3	94.8	8105	96.8	89.3
13C-2378-TCDF	76.5	72.2	74	65.6	69.1	72.1	81.9	63.7
13C-12378-PeCDD	100	70.1	53.2	62.2	90.4	87.1	77.5	76.7
13C-12378-PeCDF	83.3	86.9	87.7	81	76.8	72.6	88.1	69.8
13C-23478-PeCDF	99	92	86.1	82.4	82.7	78.3	88.5	75
13C-123478-HxCDD	130	60.9	62.5	73.5	86.6	146	93.1	136
13C-123678-HxCDD	124	96.9	86.6	100	103	96.7	82.5	115
13C-123478-HxCDF	121	94.5	105	100	80.7	97.2	69.4	82.9
13C-123678-HxCDF	113	99.3	102	114	87.1	93.7	79.7	109
13C-234678-HxCDF	122	101	109	109	93.6	112	91.7	126
13C-123789-HXCDF	118	102	118	108	85	105	95.8	108
13C-1234678-HpCDD	133	148	*153	142	106	111	84.1	115
13C-1234678-HpCDF	132	121	135	126	90.3	143	115	108
13C-1234789-HpCDF	138	144	*153	142	99.2	107	85.1	106
13C-OCDD	*174	*219	*221	*215	124	112	105	106
TOTAL OUT	1	1	3	1	0	0	0	0

QC LIMITS: 40% - 120%

* - VALUE OUTSIDE OF QC LIMITS

# SAMPLES	% REC IN	% REC OUT	% TOTAL IN
8	114	6	95.0%

TABLE 3 - 8

SOIL SAMPLE INTERNAL STANDARDS % RECOVERIES
 DIOXIN/FURAN
 NAS JACKSONVILLE RI/FS FOR OU-1

	SB08801	SB10201	SB10401	SB09001	SB10601	SB10601DU	SB09401	SB10801	SB09601	SB10001	SB09801
I.S. COMPOUND											
13C-2378-TCDD	38.1	38.7	39.7 (1)	57.1	82.3	126	68.6	86.3	29.2 (1)	95.1	40.8
13C-2378-TCDF	57.5	56.8	25.1	63.9	79.7	90.1	62.8	53.1	43.9 (1)	44.9	56.8
13C-12378-PeCDD	52.1	86.3	36.5	63.8	108	72.6	63.8	75.5	69.2	76.6	*164
13C-12378-PeCDF	62.3	70.4	25.5	74.9	33.1	108	73.4	74.7	43	67.7	71.5
13C-23478-PeCDF	61.4	78.8	32	74.2	30.7	93.8	78.7	67.2	52	62	118
13C-123478-HxCDD	43.5	139	24.6	69.7	91.1	56.3	96.8	*152	62.5	96.4	137
13C-123678-HxCDD	66.7	130	44.2	88.1	75.9	85.7	96.9	117	88.6	85	118
13C-123478-HxCDF	68.7	111	31.1	85.9	93.5	83.5	74.5	88	72	61.4	100
13C-123678-HxCDF	73.9	125	29.2	75.2	64.2	78.2	84.4	93	55.9	63.8	104
13C-234678-HxCDF	72	132	28.6	82	51.9	69	82.4	97.3	58.4	69.9	82.1
13C-123789-HxCDF	77.5	106	26.1	91.8	71.4	87.2	83.6	83.9	70.5	75.8	103
13C-1234678-HpCDD	121	*153	56.7	117	145	106	98.8	110	89.4	69	146
13C-1234678-HpCDF	91	*154	34	104	138	82.3	94	110	101	76.8	115
13C-1234789-HpCDF	113	147	48.3	105	134	91.6	90.9	110	112	72.6	116
13C-OCDD	*166	*192	69.7	122	114	108	116	142	138	72.3	129
TOTAL OUT	1	3	0	0	0	0	0	1	0	0	1

QC LIMITS: 40% - 120%

* - VALUE OUTSIDE OF QC LIMITS

(1) Recovery reported from confirmation column which was able to separate the OCDD and OCDF isomers.

# SAMPLES	% REC IN	% REC OUT	% TOTAL IN
11	159	6	96.4%

exhibited one (1) compound, 4-nitrophenol, which was recovered above the QC limit in the MS and the MSD (Table 2-16, page 2-22). This indicates that any quantified values for pentachlorophenol or 4-nitrophenol in associated field samples may be overestimated. However, based on the assessment of additional QC criteria the non-compliance did not result in sample result qualification.

The pesticide/PCB analysis of the MS/MSD pair of sample MW11201 exhibited one (1) compound with a non-compliant recovery. The compound gamma-BHC (lindane) was recovered below the QC limits. The compound was recovered acceptable in the MSD. Therefore, based on the assessment of additional QC criteria the non-compliant recovery did not result in sample data qualification.

In the metals analysis the target analyte aluminum was recovered above the QC limits in all three (3) MS performed and the target analyte iron was recovered above the QC limits in two (2) of the three (3) MSs performed (Table 2-18, pages 2-27 through 2-29). These high recoveries indicate the potential for high bias in the associated sample results. The positive results for aluminum and iron in associated samples in SDGs U1106, U1107, and U1108 were appropriately qualified as estimated, J.

One (1) analyte, silver, exhibited a %R below the minimum acceptable criteria for accuracy in the dissolved metals analysis of the MS of sample MW11201 (Table 2-19, page 2-31). The positive and non-detect results for silver in the associated samples in SDGs U1107A and U1108A were appropriately qualified as estimated, J/UJ.

The surrogate compound recoveries for the volatiles fraction (Table 3-1) were all within QC limits.

The semivolatile surrogate compound terphenyl-d14 was recovered below the acceptable criteria for accuracy in six (6) samples, three (3) field samples and three (3) field blanks (Table 3-2). However, the National Functional Guidelines allows for one (1) surrogate compound per fraction to be outside the QC limits as long as the recovery is above 10%. Therefore, the analytical data did not require qualification. Ninety-eight point eight percent (98.8%) of the semivolatile surrogate recoveries were acceptable.

The pesticide/PCB surrogate recoveries were not in-control in the many of the field samples analyzed (Table 3-3). The surrogate compound tetrachloro-m-xylene (TCX) was recovered below the acceptable criteria in eight (8) samples on both columns and in four (4) samples on one column. The surrogate compound decachlorobiphenyl was recovered below the acceptable criteria in four (4) samples on both columns and in six (6) samples on one column. This indicates a potential for low bias in results from field sample exhibiting the low recoveries. Therefore, the positive and non-detect results in samples exhibited low surrogate compound recoveries were appropriately qualified as estimated, J/UJ. Eighty-three point two percent (83.2%) of the pesticide/PCB surrogate recoveries were acceptable.

The dioxin/furan analysis of the field and rinseate blanks exhibited six (6) internal standard recoveries which were outside the QC limits (Table 3-7). The recoveries were above the QC limits in all cases. Qualification of the data was not required because positive results for the associated congeners were not observed.

For the water fraction, none of the compounds or analytes were rejected based on non-compliant accuracy results. Therefore, based on an overall assessment of MS/MSD and surrogate sample accuracy evaluation criteria, the water matrix analytical data was acceptable for each SDG for these fractions, with the noted potential for bias.

3-2 Soil Matrix

The MS/MSD sample pairs for the soil matrix analyzed for volatiles fraction (Table 2-21), the dioxin/furan fraction (Table 2-23), the pesticide/PCB fraction (Table 2-24), and the total petroleum hydrocarbon fraction (Table 2-26) exhibited acceptable recoveries.

The semivolatile analysis of the MS/MSD pair of sample SB10801 exhibited two (2) compounds with non-compliant recoveries (Table 2-22). The compound phenol was recovered above the QC limit in the MSD, and the compound 2,4-dinitrotoluene was recovered above the acceptable criteria in both the MS and the MSD. The low phenol recovery is indicative of potential low bias for phenol. However, based on the assessment of addition QC criteria as well as the acceptable recovery in the MS, the sample data did not require qualification. The high 2,4-dinitrotoluene recoveries are indicative of potential high bias in positive sample results for 2,4-dinitrotoluene. However, positive results for the compounds were not noted in the associated samples so results did not require qualification. Further, all MS/MSD recovery and RPD limits are advisory.

The metals analysis of the MS/MSD pair of sample SB10801 exhibited non-compliant recoveries for four (4) analytes/compounds (Table 2-25, page 2-39). The non-compliant analytes were lead, cyanide, mercury, and selenium. The analyte lead and the compound cyanide were recovered below the QC limit. This indicates that positive and non-detect results for lead and cyanide in samples associated with SDG U1105 may be underestimated. Positive and non-detect results for lead and cyanide were appropriately qualified as estimated, J/UJ. The analyte mercury was recovered above the QC limit, which indicates potential overestimation of positive results. Positive results for mercury in associated samples were appropriately qualified as estimated, J. The analyte selenium was not recovered in the MS sample. This indicates that positive results for selenium in associated samples are underestimated, and that non-detect results for selenium are unreliable. Therefore, positive results for selenium were appropriately qualified as estimated, J, and non-detect results were rejected, R. This constituted a rejection of one (1) QC sample data point and three (3) field sample data points.

All surrogate recoveries results in field and QC samples for the volatile fraction (Table 3-4) and the pesticides/PCB fraction (Table 3-6) were "in-control".

The semivolatile surrogate compound 2-fluorophenol was recovered above the acceptable criteria for accuracy in one (1) sample. The National Functional Guidelines allows up to one (1) surrogate recovery per fraction may not meet QA/QC criteria, as long as the recovery is greater than 10%. Therefore, qualifications were not required. Ninety-nine percent (99.0%) of the semivolatile surrogate recoveries were acceptable.

Four (4) field samples analyzed for the dioxin/furan fraction exhibited internal standard recoveries above the QC limit for one (1) or more of the internal standard compounds (Table 3-8). This indicates that positive results reported for the associated congeners in the samples may be overestimated. Therefore, the positive results reported for OCDD in samples SB08801 and SB10201 were appropriately qualified as estimated, J. Field samples SB10801 and SB09801 did not exhibit positive results for the associated congeners (1,2,3,7,7,8-HxCDD in SB10801 and 1,2,3,7,8-PeCDD in SB09801), so qualification was not required.

For the volatiles, semivolatiles, dioxin/furans, pesticides/PCBs and TPH analytical fractions, none of the compounds were rejected. Therefore, based on an overall assessment of MS/MSD and surrogate sample accuracy evaluation criteria, the soil matrix analytical data was acceptable for each SDG for these fractions, with the noted potential for bias. The metals target analyte selenium

was rejected in three (3) field samples and one (1) QC samples. However, this constituted a rejection of less than one percent (1%) of the total sample data points for the metals fraction.

4.0 REPRESENTATIVENESS

Representativeness of the environmental sample analytical data was assessed using trip blanks, field blanks, equipment rinseate blanks, laboratory method blanks, and extraction and analytical holding times. The environmental samples and associated blanks were analyzed for the following target analyte groups:

- GC/MS volatile organic compounds (GC/MS VOCs);
- semivolatile organic compounds (SVOCs);
- dioxin/furans;
- pesticides, PCBs;
- total metals; dissolved metals;
- total petroleum hydrocarbon (TPH), and
- radiological nuclides.

The trip blank samples were analyzed for only GC/MS volatile organic target analytes. Field blanks, equipment rinseate blanks, and laboratory method blanks were analyzed for target analytes in each listed category. The assessment of representativeness is summarized in tabular form for each type of blank, trip blank results are summarized in Table 4-1, field blank results are summarized in Tables 4-2 through 4-9, equipment rinseate blank results are summarized in Tables 4-10 through 4-17, and method blank results are summarized in Tables 4-18 through 4-23.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation by Heartland. The corrective action consisted of amending the laboratory reported results for organic and inorganic target analytes by the criteria. The following describes the Validation Qualifier code in the blank summary tables.

Organic Target Analytes

- CRQL Validation Qualifier. If a sample result for the blank contaminant was less than the CRQL and less than 5 times (10 times for common laboratory contaminants) the blank value, the sample result was rejected and amended as estimated non-detected at the CRQL for the target compound.
- U Validation Qualifier. If a sample result for the blank contaminant was greater than the sample CRQL and less than 5 times (10 times for common laboratory contaminants) the blank value, the sample result for the blank contaminant was amended as non detect at the concentration reported in the sample results.
- No Action (NA). If a sample result for the blank contaminant was greater than the CRQL and 5 times (10 times for common laboratory contaminants) the blank value, the result was not amended.

Inorganic Target Analytes

- U Validation Qualifier. If a sample result for the blank contaminant was less than the IDL and less than 5 times the blank value, the sample result was amended as non-detected.

TABLE 4 - 1

**GC/MS VOLATILES DETECTED IN TRIP BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	TB CONC.	UNITS	VALIDATION QUALIFIER
90252 (G44822)	MW00045TB	MW00007FB, MW00080EB, MW01402, MW01501, MW01602, MW01702, MW02102, MW02602, MW02702, MW03002, MW03102, MW03202, MW02702MS, MW03202DUP	CHLOROMETHANE	1.2	ug/L	
90254	MW00046TB	MW00081EB, MW09301, MW09301MS, MW09301MSD, MW10201, MW10201RE	NO CONTAMINATION FOUND			
90259	MW00046TB	MW00083EB, MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09401, MW09601	NO CONTAMINATION FOUND			
	MW00047TB	MW00083EB, MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09401, MW09601	NO CONTAMINATION FOUND			
90209	SB00039TB	SB10201, SB10401	NO CONTAMINATION FOUND			
90224	SB00044TB	SB09801	ACETONE	4	ug/L	U
90223	SB00043TB	SB10001, SB00078EB	NO CONTAMINATION FOUND			
90217	SB00040TB	SB09001	ACETONE	3	ug/L	CRQL
90222	SB00042TB	SB10801, SB10801MS, SB10801MSD, SB00077EB	NO CONTAMINATION FOUND			
U1105	SB00041TB	SB10601, SB10601DUP, SB09401	ACETONE	16	ug/L	U
90273	MW00049TB	MW00084EB, MW10801, MW10801MS, MW10801MD, MW10801DUP, MW10701, MW10301, MW10401, MW09701, MW10401RE	METHYLENE CHLORIDE	2	ug/L	
90276	MW00050TB	MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101	METHYLENE CHLORIDE	2	ug/L	
90281	MW00051TB	MW00086EB, MW08801, MW08801DUP, MW08901, MW08901MS, MW08901MD, MW08701, MW08801, MW10901, MW11001	NO CONTAMINATION FOUND			
90283	MW00052TB	MW00087EB, MW11301, MW11401, MW08401, MW08501, MW11201, MW11201MS, MW11201MD, MW11201DUP, MW11101	METHYLENE CHLORIDE	3	ug/L	

TABLE 4 - 2

**GC/MS VOLATILES DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
U1106	MW00007FB	MW00080EB, MW01402, MW01501, MW01602, MW01702, MW02102, MW02602, MW02702, MW03002, MW03102, MW03202, MW03202DUP, MW00081EB, MW09301, MW10201, MW00083EB, MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09601, MW09401, MW00087EB, MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101, MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701, MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101, MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
U1105	SB00006FB	SB08801, SB00073EB, SB10201, SB10401, SB00074EB, SB09001, SB00075EB, SB00076EB, SB10601, SB10601DUP, SB09401, SB10801, SB00077EB, SB09601, SB10001, SB00078EB, SB00079EB, SB09801	NO CONTAMINATION FOUND			

TABLE 4 - 3

**SEMIVOLATILES DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	FB	UNITS	VALIDATION
		SAMPLES		CONC.		QUALIFIER
U1106	MW00007FB	MW00081EB, MW09301, MW10201, MW00083EB, MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09601, MW09401, MW00087EB, MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101, MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701, MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101, MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
U1105	SB00006FB	SB08801, SB00073EB, SB10201, SB10401, SB00074EB, SB09001, SB00075EB, SB00076EB, SB10601, SB10601DUP, SB09401, SB10801, SB00077EB, SB09601, SB10001, SB00078EB, SB00079EB, SB09801	NO CONTAMINATION FOUND			

TABLE 4 - 4**DIOXIN/FURANS DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	FB	UNITS	VALIDATION
		SAMPLES		CONC.		QUALIFIER
U1105	SB00006FB	SB08801, SB00073EB, SB10201, SB10401, SB00074EB, SB09001, SB00075EB, SB00076EB, SB10601, SB10601DUP, SB09401, SB10801, SB00077EB, SB09601, SB10001, SB00078EB, SB00079EB, SB09801	2,3,7,8-TCDD 1,2,3,7,8-PeCDD * 2,3,4,6,7,8-HxCDF	2.28 2.91 1.11	pg/L pg/L pg/L	

* - VALUE REPORTED AS MAXIMUM POSSIBLE CONCENTRATION (MPC).

TABLE 4 - 5

**PESTICIDES/PCBS DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
U1106	MW00007FB	MW00081EB, MW09301, MW10201, MW00083EB, MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09601, MW09401, MW00087EB, MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101, MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701, MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101, MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
U1105	SB00006FB	SB08801, SB00073EB, SB10201, SB10401, SB00074EB, SB09001, SB00075EB, SB00076EB, SB10601, SB10601DUP, SB09401, SB10801, SB00077EB, SB09601, SB10001, SB00078EB, SB00079EB, SB09801	NO CONTAMINATION FOUND			

TABLE 4 - 6

**METALS/CYANIDE DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
U1106	MW00007FB	MW00081EB, MW09301, MW10201, MW00083EB, MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09601, MW09401, MW00087EB, MW11401, MW08401, MW08801, MW11201, MW11201DUP, MW09901, MW10801, MW08601, MW08801DUP, MW10801DUP, MW10701, MW09801, MW10401, MW09701, MW00085EB, MW00086EB	MERCURY	0.49	ug/L	
		MW08501, MW11101, MW11301, MW00084EB, MW08601, MW08701, MW08901, MW09001, MW09101, MW10301, MW10701, MW10801, MW10901, MW11001, MW11501, MW11601	MERCURY	0.49	ug/L	U
U1105	SB00006FB	SB08801, SB00073EB, SB10201, SB10401, SB00074EB, SB09001, SB00075EB, SB00076EB, SB10601, SB10601DUP, SB09401, SB10801, SB00077EB, SB09601, SB10001, SB00078EB, SB00079EB, SB09801	BERYLLIUM	0.33	ug/L	

TABLE 4 - 7

**DISSOLVED METALS DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
U1106	MW00007FB	MW00081EB, MW09301, MW10201, MW00083EB, MW10601, MW10601 DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09601, MW09401, MW00087EB, MW11301, MW11401, MW08401, MW08501, MW11201, MW11201 DUP, MW11101, MW00084EB, MW10801, MW10801 DUP, MW10701, MW10301, MW10401, MW09701, MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101, MW00086EB, MW08801, MW08801 DUP, MW08901, MW08701, MW08601, MW10901, MW11001	ANTIMONY CADMIUM CALCIUM IRON MANGANESE ZINC	25.9 14.4 90.8 66.7 1.9 7.0	ug/L ug/L ug/L ug/L ug/L ug/L	

TABLE 4 - 8

**TOTAL PETROLEUM HYDROCARBONS DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
U1106	MW00007FB	MW00081EB, MW09301, MW10201, MW00083EB, MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09601, MW09401, MW00087EB, MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101, MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701, MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101, MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
U1105	SB00006FB	SB08801, SB00073EB, SB10201, SB10401, SB00074EB, SB09001, SB00075EB, SB00076EB, SB10601, SB10601DUP, SB09401, SB10801, SB00077EB, SB09601, SB10001, SB00078EB, SB00079EB, SB09801	NO CONTAMINATION FOUND			

TABLE 4 - 9**RADIOLOGICAL NUCLIDES DETECTED IN FIELD BLANKS
NAS JACKSONVILLE OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
U1106	MW00007FB	MW00081EB, MW09301, MW10201, MW00083EB, MW10601, MW10601DUP, MW10501, MW09201, MW10001, MW10101, MW00082EB, MW09501, MW09601, MW09401	NO CONTAMINATION FOUND			
U1105	SB00006FB	SB08801, SB00073EB, SB10201, SB10401, SB00074EB, SB09001, SB00075EB, SB00076EB, SB10601, SB10601DUP, SB09401, SB10801, SB00077EB, SB09601, SB10001, SB00078EB, SB00079EB, SB09801	NO CONTAMINATION FOUND			

TABLE 4 - 10

GC/MS VOLATILES DETECTED IN EQUIPMENT RINSE BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
U1106	MW00081EB	MW09301, MW10201, MW09301MS, MW09301MSD	NO CONTAMINATION FOUND			
U1106	MW00083EB	MW10801, MW10601MS, MW10801MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101	NO CONTAMINATION FOUND			
	MW00082EB	MW09501, MW09401, MW09601	NO CONTAMINATION FOUND			
U1105	SB00074EB	SB10201, SB10401	NO CONTAMINATION FOUND			
	SB00079EB	SB09801	NO CONTAMINATION FOUND			
	SB00078EB	SB09601, SB10001	ACETONE	3	ug/L	CRQL
	SB00075EB	SB09001	ACETONE	3	ug/L	
	SB00077EB	SB10801, SB10801MS, SB10801MSD	NO CONTAMINATION FOUND			
	SB00073EB	SB08801	NO CONTAMINATION FOUND			
	SB00076EB	SB10601, SB10601DUP, SB09401	NO CONTAMINATION FOUND			
U1107	MW00084EB	MW10801, MW10801DUP, MW10701, MW10301, MW10301, MW10401, MW09701	NO CONTAMINATION FOUND			
	MW00085EB	MW09801, MW09901, MW11601, MW11501, MW09001, MW09101	METHYLENE CHLORIDE	2	ug/L	
	MW00086EB	MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
U1108	MW00087EB	MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101	METHYLENE CHLORIDE	2	ug/L	
U1106 (90252)	MW00080EB	MW00007FB	METHYLENE CHLORIDE	0.69	ug/L	U

TABLE 4 - 11

**SEMIVOLATILES DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
U1106	MW00081EB	MW09301, MW10201, MW09301MS, MW09301MSD	NO CONTAMINATION FOUND			
U1106	MW00083EB	MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101	NO CONTAMINATION FOUND			
	MW00082EB	MW09501, MW09401, MW09601	NO CONTAMINATION FOUND			
U1105	SB00074EB	SB10201, SB10401	BIS(2-ETHYLHEXYL)PHTHALATE	3	ug/L	
	SB00079EB	SB09801	NO CONTAMINATION FOUND			
	SB00078EB	SB09601, SB10001	NO CONTAMINATION FOUND			
	SB00075EB	SB09001	NO CONTAMINATION FOUND			
	SB00077EB	SB10801, SB10801MS, SB10801MSD	NO CONTAMINATION FOUND			
	SB00073EB	SB08801	BIS(2-ETHYLHEXYL)PHTHALATE	8	ug/L	
	SB00076EB	SB10601, SB10601DUP, SB09401	NO CONTAMINATION FOUND			
U1107	MW00084EB	MW10801, MW10801DUP, MW10701, MW10301, MW10301, MW10401, MW09701	NO CONTAMINATION FOUND			
	MW00085EB	MW09801, MW09901, MW11601, MW11501, MW09001, MW09101	NO CONTAMINATION FOUND			
	MW00086EB	MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
U1108	MW00087EB	MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101	NO CONTAMINATION FOUND			

TABLE 4 - 12

**DIOXIN/FURANS DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL		RB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES	CONTAMINANT			
U1105	SB00074EB	SB10201, SB10401	2,3,7,8,-TCDD *	2.09	pg/L	
			1,2,3,7,8-PeCDD *	2.87	pg/L	
	SB00079EB	SB09801	NO CONTAMINATION FOUND			
	SB00078EB	SB09601, SB10001	NO CONTAMINATION FOUND			
	SB00075EB	SB09001	2,3,7,8,-TCDD *	2.13	pg/L	
			1,2,3,7,8,-PeCDD	2.77	pg/L	
			1,2,3,6,7,8-HxCDF	1.29	pg/L	
			2,3,4,6,7,8-HxCDF	1.20	pg/L	
			1,2,3,4,6,7,8-HpCDF	0.80	pg/L	
	SB00077EB	SB10801, SB10801MS, SB10801MSD	NO CONTAMINATION FOUND			
	SB00073EB	SB08801	2,3,4,6,7,8-HxCDF	2.09	pg/L	
SB00076EB	SB10601, SB10601DUP, SB09401	NO CONTAMINATION FOUND				

* - VALUE REPORTED AS MAXIMUM POSSIBLE CONCENTRATION (MPC).

TABLE 4 - 13

**PESTICIDES/PCBS DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB	UNITS	VALIDATION
		SAMPLES		CONC.		QUALIFIER
U1106	MW00081EB	MW09301, MW10201, MW09301MS, MW09301MSD	NO CONTAMINATION FOUND			
U1106	MW00083EB	MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101	NO CONTAMINATION FOUND			
	MW00082EB	MW09501, MW09401, MW09601	NO CONTAMINATION FOUND			
U1105	SB00074EB	SB10201, SB10401	NO CONTAMINATION FOUND			
	SB00079EB	SB09801	NO CONTAMINATION FOUND			
	SB00078EB	SB09601, SB10001	NO CONTAMINATION FOUND			
	SB00075EB	SB09001	NO CONTAMINATION FOUND			
	SB00077EB	SB10801, SB10801MS, SB10801MSD	NO CONTAMINATION FOUND			
	SB00073EB	SB08801	NO CONTAMINATION FOUND			
U1107	SB00076EB	SB10601, SB10601DUP, SB09401	NO CONTAMINATION FOUND			
	MW00084EB	MW10801, MW10801DUP, MW10701, MW10301, MW10301, MW10401, MW09701	NO CONTAMINATION FOUND			
	MW00085EB	MW09801, MW09901, MW11601, MW11501, MW09001, MW09101	NO CONTAMINATION FOUND			
U1108	MW00086EB	MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
	MW00087EB	MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101	NO CONTAMINATION FOUND			

TABLE 4 - 14

**METALS/CYANIDE DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
U1106	MW00081EB	MW09301, MW10201, MW09301MS, MW09301MSD	MANGANESE	0.95	ug/L	
U1106	MW00083EB	MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101	NO CONTAMINATION FOUND			
	MW00082EB	MW09501, MW09401, MW09601	IRON	113	ug/L	
U1105	SB00074EB	SB10201, SB10401	CALCIUM	30	ug/L	
			ZINC	1.5	ug/L	
	SB00079EB	SB09801	CALCIUM	54.2	ug/L	
			SODIUM	137	ug/L	
			ZINC	2.0	ug/L	
	SB00078EB	SB09601, SB10001	IRON	107	ug/L	
	SB00075EB	SB09001	CALCIUM	62	ug/L	
			ZINC	4.0	ug/L	
			MERCURY	2.6	ug/L	
			CYANIDE	1.8	ug/L	
	SB00077EB	SB10801, SB10801MS, SB10801MSD	CADMIUM	3.3	ug/L	
			CALCIUM	32.3	ug/L	
			IRON	33.3	ug/L	
			CYANIDE	2.1	ug/L	
	SB00073EB	SB08801	ZINC	2.1	ug/L	
	SB00076EB	SB10601, SB10601DUP, SB09401	ALUMINUM	22	ug/L	
			CALCIUM	75	ug/L	
			SODIUM	163	ug/L	
			ZINC	2.1	ug/L	
			CYANIDE	2.1	ug/L	
U1107	MW00084EB	MW09801, MW09901, MW11601, MW11501, MW09001, MW09101	NO CONTAMINATION FOUND			
	MW00085EB	MW09801, MW09901, MW11601, MW11501, MW09001, MW09101	NO CONTAMINATION FOUND			
	MW00086EB	MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	ARSENIC	1.6	ug/L	
U1108	MW00087EB	MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101	ZINC	1.5	ug/L	

TABLE 4 - 15

**DISSOLVED METALS DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB	UNITS	VALIDATION
		SAMPLES		CONC.		QUALIFIER
U1106	MW00081EB	MW09301, MW10201, MW09301MS, MW09301MSD	BARIUM	2.2	ug/L	
			CALCIUM	61.0	ug/L	
			ZINC	2.3	ug/L	
U1106	MW00083EB	MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101	ZINC	3.1	ug/L	
	MW00082EB	MW09501, MW09401, MW09601	CALCIUM	70	ug/L	
U1107	MW00084EB	MW10801, MW10801DUP, MW10701, MW10301, MW10301, MW10401, MW09701	BARIUM	1.1	ug/L	
			BARIUM	1.1	ug/L	
	MW00086EB	MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	ALUMINUM	24.9	ug/L	
			ARSENIC	2.4	ug/L	
		CALCIUM	79	ug/L		
		MW08101, MW08601	MANGANESE	1.3	ug/L	
			ZINC	2.7	ug/L	U
U1108	MW00087EB	MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101	NO CONTAMINATION FOUND			

TABLE 4 - 16

**TOTAL PETROLEUM HYDROCARBONS DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
U1106	MW00081EB	MW09301, MW10201, MW09301MS, MW09301MSD	NO CONTAMINATION FOUND			
U1106	MW00083EB	MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101	NO CONTAMINATION FOUND			
	MW00082EB	MW09501, MW09401, MW09601	NO CONTAMINATION FOUND			
U1105	SB00074EB	SB10201, SB10401	NO CONTAMINATION FOUND			
	SB00079EB	SB09801	NO CONTAMINATION FOUND			
	SB00078EB	SB09601, SB10001	NO CONTAMINATION FOUND			
	SB00075EB	SB09001	NO CONTAMINATION FOUND			
	SB00077EB	SB10801, SB10801MS, SB10801MSD	NO CONTAMINATION FOUND			
	SB00073EB	SB08801	NO CONTAMINATION FOUND			
U1107	SB00076EB	SB10601, SB10601DUP, SB09401	NO CONTAMINATION FOUND			
	MW00084EB	MW10801, MW10801DUP, MW10701, MW10301, MW10301, MW10401, MW09701	NO CONTAMINATION FOUND			
	MW00085EB	MW09801, MW09901, MW11601, MW11501, MW09001, MW09101	NO CONTAMINATION FOUND			
	MW00086EB	MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
U1108	MW00087EB	MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101	NO CONTAMINATION FOUND			

TABLE 4 - 17

**RADIOLOGICAL NUCLIDES DETECTED IN EQUIPMENT RINSE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB	UNITS	VALIDATION
		SAMPLES		CONC.		QUALIFIER
U1106	MW00081EB	MW09301, MW10201, MW09301MS, MW09301MSD	NO CONTAMINATION FOUND			
U1106	MW00083EB	MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201, MW10001, MW10101	NO CONTAMINATION FOUND			
	MW00082EB	MW09501, MW09401, MW09601	NO CONTAMINATION FOUND			
U1105	SB00074EB	SB10201, SB10401	NO CONTAMINATION FOUND			
	SB00079EB	SB09801	NO CONTAMINATION FOUND			
	SB00078EB	SB09601, SB10001	NO CONTAMINATION FOUND			
	SB00075EB	SB09001	NO CONTAMINATION FOUND			
	SB00077EB	SB10801	TH-234	350	pci/L	
			TL-208	4.1	pci/L	
	SB00073EB	SB08801	NO CONTAMINATION FOUND			
SB00076EB	SB10601, SB10601DUP, SB09401	NO CONTAMINATION FOUND				
U1107	MW00084EB	MW10801, MW10801DUP, MW10701, MW10301, MW10401, MW09701	NO CONTAMINATION FOUND			
	MW00085EB	MW09801, MW09901, MW11601, MW11501, MW09001, MW09101	Pb-212	14	pci/L	
	MW00086EB	MW08801, MW08801DUP, MW08901, MW08701, MW08601, MW10901, MW11001	NO CONTAMINATION FOUND			
U1108	MW00087EB	MW11301, MW11401, MW08401, MW08501, MW11201, MW11201DUP, MW11101	NO CONTAMINATION FOUND			

TABLE 4 - 18

GC/MS VOLATILES DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90258	VBLK75	MW50001, MW50101	NO CONTAMINATION FOUND			
90254	VBLK76	MW09301, MW10201, MW00046TB, MW00081EB	NO CONTAMINATION FOUND			
90259	VBLK77	MW00047TB, MW09401, MW09501, MW00082EB, MW09401DL, MW09601	NO CONTAMINATION FOUND			
	VBLK79	MW09201, MW10001, MW10101, MW10501, MW10601, MW10601DUP, MW10601MS, MW10601MSD	NO CONTAMINATION FOUND			
	VBLK7B	MW00048TB, MW00083EB	NO CONTAMINATION FOUND			
90209	VBLKW	SB00039TB, SB00074EB	METHYLENE CHLORIDE BENZENE	3 2	ug/L ug/L	
	VBLKS1_1122	SB10201, SB10401	METHYLENE CHLORIDE	2	ug/Kg	CRQL
90205	VBKKS1_1122	SB08801	METHYLENE CHLORIDE	2	ug/Kg	CRQL
90217	VBLKW1_1124	SB00040TB, SB00075EB	METHYLENE CHLORIDE	4	ug/L	CRQL
	VBLKS1_1124	SB09001	METHYLENE CHLORIDE	4	ug/Kg	CRQL
90222	VBLKW1_1124	SB00042TB, SB00077EB	METHYLENE CHLORIDE	4	ug/L	CRQL
	VBLKS1_1124	SB10801, SB10801MS, SB10801MSD	METHYLENE CHLORIDE	4	ug/Kg	CRQL
90223	VBLKW1_1124	SB00043TB, SB00078EB	METHYLENE CHLORIDE	4	ug/L	CRQL
	VBLKS1_1124	SB09601, SB10001	METHYLENE CHLORIDE	4	ug/Kg	CRQL
90224	VBLKW1_1124	SB00044TB	METHYLENE CHLORIDE	4	ug/L	CRQL
	VBLKW1_1125	SB00079EB	ACETONE	4	ug/L	CRQL
	VBLKS1_1124	SB09801	METHYLENE CHLORIDE	4	ug/Kg	CRQL
U1105	VBLK7I	SB00006FB, SB00038TB, SB09401, SB10601, SB00041TB, SB00073EB, SB00076EB, SB10601DUP	NO CONTAMINATION FOUND			
G44822	PBLK1	MW00007FB, MW00045TB, MW00080EB, MW01402, MW01501, MW01602, MW01702, MW2102, MW2602 MW00007FBMS	NO CONTAMINATION FOUND			
G44823	PBLK1	MW02702, MW03002, MW03102, MW03202, MW03202DUP	METHYLENE CHLORIDE	4.4	ug/L	U
90273	VBLKW1_1215	MW00049TB	METHYLENE CHLORIDE	2	ug/L	CRQL
	VBLKW2_1215	MW10401, MW09701, MW10801MS, MW10801MSD	METHYLENE CHLORIDE	3	ug/L	CRQL
	VBLKW1_1216	MW10801	METHYLENE CHLORIDE	3	ug/L	CRQL
90276	VBLKW2_1215	MW00050TB, MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001	METHYLENE CHLORIDE	3	ug/L	CRQL
90281	VBLKW1_1217	MW08801DUP	METHYLENE CHLORIDE	3	ug/L	CRQL
	VBLKW1_1218	MW08901, MW08601, MW10901	METHYLENE CHLORIDE	3	ug/L	CRQL
	VBLKW1_1222	MW11001	METHYLENE CHLORIDE	2	ug/L	CRQL
90283	VBLKW1_1222	MW00052TB, MW00087EB, MW11301, MW11401, MW08501, MW11201, MW11201MS, MW11201MSD	METHYLENE CHLORIDE	2	ug/L	CRQL

TABLE 4 - 19

**SEMIVOLATILES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
90258	SBLK91	MW50001, MW50101	NO CONTAMINATION FOUND			
	SBLK94	MW50101DL	NO CONTAMINATION FOUND			
90252	SBLK90	MW00007FB	NO CONTAMINATION FOUND			
	SBLK90	MW00081EB, MW09301, MW10201	NO CONTAMINATION FOUND			
90259	SBLK91	MW00082EB, MW09201, MW09401, MW09501, MW09601, MW10001, MW10101, MW10501, MW10601, MW10601DUP, MW10601MS, MW10601MSD	NO CONTAMINATION FOUND			
	SBLK94	MW00083EB	NO CONTAMINATION FOUND			
U1105	SBLK7M	SB00006FB, SB00074EB, SB00075EB	NO CONTAMINATION FOUND			
	SBLK82	SB08801, SB09001, SB09401, SB09601, SB10001, SB10201, SB10401, SB10601, SB10601DUP, SB10601MS, SB10601MSD	DI-N-BUTYLPHTHALATE	320	ug/Kg	U
	SBLK7Q	SB00073EB	NO CONTAMINATION FOUND			
	SBLK83	SB00076EB, SB00077EB, SB00078EB, SB00079EB	NO CONTAMINATION FOUND			
	SBLK8N	SB10801	NO CONTAMINATION FOUND			
	SBLK8U	SB09801	DI-N-BUTYLPHTHALATE	460	ug/Kg	U
90283	SBLKW1_1215	MW08401, MW11301, MW11401	NO CONTAMINATION FOUND			
	SBLKW2_1215	MW08501, MW11101, MW11201, MW11201DUP, MW11201MS, MW11201MSD	NO CONTAMINATION FOUND			
	SBLKW3_1215	MW00087EB	NO CONTAMINATION FOUND			
90273	SBLKW1_1213	MW00084EB, MW10301, MW10401, MW10701, MW10801, MW10801DUP, MW10801MS, MW10801MSD	NO CONTAMINATION FOUND			
	SBLKW2_1213	MW09701	NO CONTAMINATION FOUND			
	SBLKW2_1213	MW00085EB, MW09001, MW09101, MW09801, MW09901, MW11501, MW11601	NO CONTAMINATION FOUND			
90281	SBLKW1_1213	MW00086EB, MW08801, MW08801DUP	NO CONTAMINATION FOUND			
	SBLKW2_1213	MW08601, MW08701, MW08901, MW10901, MW11001	NO CONTAMINATION FOUND			

TABLE 4 - 20

**DIOXIN/FURANS DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	MB	UNITS	VALIDATION
		SAMPLES		CONC.		QUALIFIER
93-11180	WBL11163	SB00073EB, SB00006FB, SB00074EB, SB00075EB	1,2,3,7,8,9-HxCDF	6.95*	pg/L	U
		SB00073EB, SB00075EB	1,2,3,4,6,7,8-HpCDD	4.04	pg/L	U
		SB00073EB, SB00006FB, SB000075EB	OCDD	4.45	pg/L	U
	SBL11163	SB09001, SB08801, SB10201, SB10401	NO CONTAMINATION FOUND			
93-11205	WBL11263	SB00076EB, SB00079EB, SB00077EB, SB00078EB	NO CONTAMINATION FOUND			
		SBL11243	SB10001	OCDD	0.81*	pg/G
		SB10601, SB10601DUP, SB09401, SB09801, SB10801, SB10801MS, SB10801MSD, SB09601	NO CONTAMINATION FOUND			

* - CONGENER/ISOMER REPORTED AS MPC (MAXIMUM POSSIBLE CONCENTRATION)

TABLE 4 - 21

**PESTICIDES/PCBs DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
		SAMPLES				
90258	PBLK06	MW50001, MW50101, MW50101DL	NO CONTAMINATION FOUND			
106 (90252/54)	PBLK03	MW00007FB, MW00081EB, MW09201, MW10201	NO CONTAMINATION FOUND			
	PBLK06	MW00082EB, MW00083EB, MW09201, MW09401, MW09501, MW09601, MW10001, MW10101, MW10501, MW10601, MW10601DUP, MW10601MS, MW10601MSD	NO CONTAMINATION FOUND			
	PBLK10	MW10201RE	NO CONTAMINATION FOUND			
U1105	PBLK12	SB00006FB, SB00073EB, SB00074EB	NO CONTAMINATION FOUND			
	PBLK15	SB08801	NO CONTAMINATION FOUND			
	PBLK04	SB00075EB	NO CONTAMINATION FOUND			
	PBLK01	SB00076EB	NO CONTAMINATION FOUND			
	PBLK02	SB00077EB, SB00078EB	NO CONTAMINATION FOUND			
	PBLK05	SB00079EB	NO CONTAMINATION FOUND			
	PBLK03	SBB10201, SB10401	NO CONTAMINATION FOUND			
90283	PBLK15	MW08501	NO CONTAMINATION FOUND			
	PBLK16	MW00087EB, MW08401, MW11101, MW11201, MW11201DUP, MW11301, MW11401, MW11201MS, MW11201MSD	NO CONTAMINATION FOUND			
90273	PBLK10	MW00084EB, MW09701, MW10301, MW10401, MW10701, MW10801, MW10801DUP, MW10801MS, MW10801MSD	NO CONTAMINATION FOUND			
90276	PBLK13	MW00085EB, MW09001, MW09101, MW09801, MW09901, MW11501, MW11601	NO CONTAMINATION FOUND			
90281	PBLK15	MW00086EB, MW08601, MW08701, MW08801, MW08801DUP, MW08901, MW10901, MW11001	NO CONTAMINATION FOUND			
	PBLK16	MW09801RE, MW10401RE	NO CONTAMINATION FOUND			

TABLE 4 - 22

**METALS AND CYANIDE DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
90258	MW50001, MW50201	BARIUM	1.13	ug/L	U
	MW50001, MW50101, MW50201	IRON	28.2	ug/L	
	MW50201	SILVER	3.7	ug/L	U
	MW50001, MW50101, MW50201	SODIUM	27.7	ug/L	U
	MW50001, MW50101, MW50201	NICKEL	-11.3	ug/L	
90252	MW00007FB	CALCIUM	30.2	ug/L	
		CHROMIUM	4.1	ug/L	U
		COBALT	4.4	ug/L	
		COPPER	2.7	ug/L	
		MAGNESIUM	39.2	ug/L	
		SILVER	5.4	ug/L	U
		SODIUM	29.5	ug/L	U
90254	MW00081EB, MW09301, MW09301MS, MW09301MSD, MW10201,	CALCIUM	30.2	ug/L	
		MAGNESIUM	39.2	ug/L	
		ZINC	2.7	ug/L	
	MW00081EB, MW10201	CHROMIUM	4.1	ug/L	U
	MW09301	COBALT	4.4	ug/L	
	MW00081EB, MW10201	COPPER	2.7	ug/L	U
	MW09301	SILVER	5.4	ug/L	U
	MW00081EB	SODIUM	29.5	ug/L	U
90259	MW00083EB	CALCIUM	30.2	ug/L	U
	MW00083EB, MW09201, MW09401, MW10001, MW10601,	CHROMIUM	4.1	ug/L	U
	MW00082EB, MW09201, MW09401, MW09501, MW09601, MW10501, MW10601, MW10601DUP	COBALT	4.4	ug/L	U
	MW09201, MW09401, MW10601, MW10601DUP	COPPER	2.7	ug/L	U
	MW00082EB	MAGNESIUM	39.2	ug/L	U
	MW00082EB, MW09201, MW09401, MW09501, MW09601, MW10501, MW10601,	SILVER	5.4	ug/L	U
	MW00082EB, MW00083EB	SODIUM	29.5	ug/L	U
	MW09201, MW10001, MW10601	ZINC	2.7	ug/L	U

TABLE 4 - 22, CONTINUED

**METALS AND CYANIDE DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
U1105	SB00075EB, SB00077EB	ARSENIC	1.75	ug/L	U
	SB00006FB, SB00073EB, SB00074EB, SB00075EB, SB00076EB, SB00077EB, SB00078EB, SB00079EB	LEAD	1.14	ug/L	
	SB00076EB	SILVER	2.81	ug/L	U
	SB00006FB, SB00073EB, SB00074EB, SB00075EB, SB00076EB, SB00077EB, SB00078EB	SODIUM	24.3	ug/L	U
	SB08801, SB10001, SB10201, SB10401, SB10601, SB10601DUP, SB10801	ARSENIC	0.71	mg/Kg	U
	SB08801, SB09801, SB10001, SB10401, SB10601, SB10601DUP	LEAD	0.37	mg/Kg	U
	SB09401, SB09601, SB10201, SB10601DUP	MERCURY	0.04	mg/Kg	U
	SB08801, SB10201, SB10401	SODIUM	7.8	mg/Kg	U
90283 (U1108)	MW00087EB, MW08401, MW08501, MW11101, MW11201, MW11201DUP, MW11301, MW11401	IRON SODIUM	18.5 35.2	ug/L ug/L	
	U1107	MW00084EB, MW00085EB, MW00086EB	BARIUM	1.13	ug/L
MW08601, MW08701, MW08801, MW08801DUP, MW09801, MW09901, MW10701, MW11001, MW11601		COPPER	3.72	ug/L	U
MW00084EB, MW00085EB, MW00086EB, MW08601, MW08701, MW08801, MW08801DUP, MW08901, MW09001, MW09101, MW09701, MW09801, MW09901, MW10301, MW10401, MW10701, MW10801, MW10801DUP, MW10901, MW11001, MW11501, MW11601		IRON	18.5	ug/L	
MW00084EB, MW00086EB		SODIUM	35.2	ug/L	U

TABLE 4 - 23

DISSOLVED METALS DETECTED IN METHOD BLANKS
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG NUMBER	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
U1108	MW00087EB	SODIUM	35.2	ug/L	U
	MW00087EB, MW08401, MW08501, MW11101, MW11201, MW11201DUP, MW11301, MW11401	SELENIUM	3.3	ug/L	
U1107	MW00084EB, MW00085EB, MW00086EB	SODIUM	45.6	ug/L	U
	MW08801DUP, MW09101, MW09701, MW09801, MW10301, MW10401, MW10701, MW11501	SELENIUM	3.3	ug/L	U
	MW09801	THALLIUM	1.0	ug/L	U
90260	MW00083EB, MW09201, MW09601, MW10101, MW10501, MW10601DUP	CHROMIUM	3.1	ug/L	U
	MS09501, MW09601, MW10501	COPPER	3.5	ug/L	U
	MW00082EB, MW00083EB	SODIUM	39.3	ug/L	U
90261	MW00081EB, MW09301	COPPER	3.5	ug/L	U
	MW00081EB	SODIUM	39.3	ug/L	U

- UJ Validation Qualifier. If a sample result for the blank contaminant was less than the sample IDL when the absolute value of the negative blank value was greater than the IDL, the sample result for the blank contaminant was amended as estimated non-detected.
- J Validation Qualifier. If a sample result for the blank contaminant was greater than the IDL and less than 10 times the blank value, when the absolute of the negative blank value is greater than the IDL the result was amended as estimated at the laboratory value.

4.1 Trip Blanks

Trip blanks contained organic free deionized water from the laboratory and consisted of sample bottles which were similar to the environmental sample containers. The trip blanks were prepared and packaged at the laboratory prior to the sampling event and traveled with the sample bottles to the site. The trip blank bottles were not opened at the site or anytime prior to laboratory analysis.

The three (3) volatile organic compounds which were detected in one (1) or more of the trip blank samples are listed below:

- GC/MS Volatiles (Table 4-1)

chloromethane
methylene chloride
acetone

The methylene chloride and acetone are common laboratory contaminants and were also detected in the method blanks and rinseate blanks associated with this project (Table 4-18 & Table 4-10, respectively). The methylene chloride and acetone contamination may be attributed to laboratory and/or field contamination. The chloromethane may be due to carry over from instrument calibration. Some of the field sample analytical results required qualification due to acetone trip blank contamination. The methylene chloride contamination was attributed to the method blanks, so qualification due to the trip blanks was not required. Positive results for chloromethane were noted in the samples so qualifications were not required. Based on the assessment of the trip blanks for representativeness, the analytical data was acceptable for each SDG.

4.2 Field Blanks

The field blank is a sample of deionized water used during equipment decontamination. The field blank was opened to ambient field conditions. Volatile, semivolatile, pesticide/PCBs and TPH compounds were not detected in the field blank samples (Tables 4-2, 4-3, 4-5 and 4-8, respectively).

Target analytes detected in the field blank samples consisted of:

- Dioxin/Furans (Table 4-4)
2,3,7,8-TCDD
1,2,3,7,8-PeCDD
2,3,4,6,7,8-HxCDF

- Total Metals/Cyanide (Table 4-6)
 - mercury
 - beryllium
- Dissolved Metals (Table 4-7)
 - antimony
 - cadmium
 - calcium
 - iron
 - manganese
 - zinc

Several dioxin/furan congeners were detected in the field blanks. Dioxin/furan congeners are not common blank contaminants. The congener results detected are most likely a laboratory contaminant in the glassware used by the laboratory for the extraction process. The inorganic analytes could be attributed to the water source, the water treatment system that was used to make the deionized water or laboratory artifacts.

Target isomers/analytes were detected in the field blanks. However, qualifications were required for the analyte mercury only. Therefore, based on the assessment of field blanks for representativeness, the analytical data was acceptable for each SDG.

4.3 Equipment Rinseate Blanks

The equipment rinseate blank was collected by rinsing a piece of sampling equipment with organic free deionized water. A sample of this water was collected and placed in sample containers similar to those used for the environmental samples. Pesticides/PCBs and TPHs were not detected in equipment rinseate blank samples (Tables 4-13 and 4-16). Target analytes detected in the equipment rinseate blank samples consisted of:

- Volatiles (Table 4-10)
 - methylene chloride
 - acetone
- Semivolatiles (Table 4-11)
 - bis(2-ethylhexyl)phthalate
- Dioxin/Furans (Table 4-12)
 - 2,3,7,8-TCDD
 - 1,2,3,7,8-PeCDD
 - 1,2,3,6,7,8-HxCDF
 - 2,3,4,6,7,8-HxCDF
 - 1,2,3,4,6,7,8-HpCDF
- Total Metals/Cyanide (Table 4-13)
 - manganese
 - iron
 - calcium
 - aluminum
 - cyanide
 - cadmium
 - sodium
 - arsenic
 - zinc
- Dissolved Metals (Table 4-14)
 - barium
 - arsenic
 - selenium
 - aluminum
 - zinc
 - calcium
 - manganese

The volatile compounds acetone and methylene chloride are common laboratory contaminants and were also detected in the method blanks associated with this project. The volatile compounds

acetone and methylene chloride may be attributed to laboratory and/or field contamination. The semivolatile compound bis(2-ethylhexyl)phthalate is also a common laboratory contaminant. Its presence in the equipment rinseate blanks may be attributed to random laboratory and/or field contamination. Several dioxin/furan congeners were detected in the rinseate blanks. Dioxin/furan congeners are not common blank contaminants. The congener results detected are most likely a laboratory contaminant in the glassware used by the laboratory for the extraction process. The inorganic analytes may be attributed to the water source, the water treatment system that was used to make the deionized water or laboratory artifacts.

Because target compounds were detected in the equipment rinseate blanks, volatile results for the compounds acetone, methylene chloride required qualification. Metals target analytes were detected in some of the equipment rinseate blanks; however, qualification was required for the analytes zinc, and cyanide only. Based on assessment of equipment rinseate blanks for representativeness, the analytical data was acceptable for each SDG.

4.4 Method Blanks

The method blanks were a sample of deionized water that is prepared by the laboratory at the time of analysis. Method blanks undergo the same analytical process as the corresponding environmental samples and associated field blanks. The purpose of the method blank is to assess the potential for target analytes to "contaminate" the sample during analysis. Pesticides target compounds were not detected in method blank samples (Table 4-21). Target analytes detected in the method blank samples consisted of:

- GC/MS Volatiles (Table 4-18)
 - acetone
 - methylene chloride
 - benzene
- Semivolatile Organics (Table 4-19)
 - di-n-butylphthalate
- Dioxin/Furans (Table 4-20)
 - 1,2,3,7,8,9-HxCDF
 - 1,2,3,4,6,7,8-HpCDD
 - OCDD
- Total Metals/Cyanide (Table 4-21)

barium	chromium	calcium
iron	copper	silver
cobalt	sodium	magnesium
nickel	zinc	
- Dissolved Metals (Table 4-22)

sodium	selenium	thorium
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The detectable acetone, methylene chloride, and bis(2-ethylhexyl)phthalate results are attributed to laboratory contamination. Benzene is an unusual method blank contaminant. Its presence could be attributed to dirty glassware and/or contaminated instrumentation lines. Three (3) dioxin/furan congeners were detected in the rinseate blanks. Dioxin/furan congeners are not common blank contaminants. The congener results detected are most likely a laboratory contaminant in the glassware used by the laboratory for the extraction process. The inorganic analytes may be

attributed to the water source, the water treatment system that was used to make the deionized water or laboratory artifacts.

Because target analytes/compounds were detected in some of the method blanks, some of the analytical results were qualified. However, based on assessment of method blanks for representativeness the analytical data was acceptable for each SDG for all analytical fractions and matrices.

4.5 Holding Times

Holding times requirements are utilized in an effort to minimize the degradation or concentration of constituents in a particular matrix over time. The stability of the constituents is determined to the best extent and then a reasonable time limit is imposed under which the samples must be extracted or prepared and then analyzed. The holding times regulations assume that the samples have been properly preserved according to the guidelines, either at the laboratory or in the field. Analytical results from samples with holding time violations are qualified as estimated, J/UJ, or rejected, R, due to the potential for compromising the integrity of the samples, and based on the extent of the holding time violation.

All holding times requirements, extraction and analytical, were met with the exception of eight (8) samples analyzed for the volatiles fraction. These eight (8) samples were analyzed thirty-nine (39) to forty-two (42) days outside the analytical holding time. Based on the gross holding time violation, all sample data points in samples SB00073EB, SB0006FB, SB00038TB, SB00041TB, SB00076EB, SB10601, SB10601DUP, and SB09401 were rejected. This constituted a rejection of one hundred and ninety-eight (198) QC data points and sixty-six (66) field sample data points. The volatile fraction did not meet the completion goal of 96% for either the QC matrix or the soil sample matrix.

5.0 COMPARABILITY

Comparability is a qualitative measure designed to express the confidence with which one data set may be compared to another. The analytical samples were collected and transported to the chemical analytical laboratory in accordance with standard procedures and were analyzed in conformance with acceptable USEPA procedures (Refer to Table 5-1 below). The analytical data are reported in standard units (micrograms per liter, micrograms per kilogram, etc.).

The methods used to collect the environmental samples and the methods used to analyze the samples should assure comparability of the analytical data.

TABLE 5-1
USEPA Procedures (CLP/SW-846/EPA-EMSL Methodologies)

U.S. EPA Method	Description
CLP SOW OLM01.8	CLP TCL Volatile Organics without TICs
CLP SOW OLM01.8	CLP TCL Semivolatile Organics without TICs
SW-846, 8290/Mod. EPA 1613	Dioxin/Furans
CLP SOW OLM01.8	CLP TCL Pesticides/PCBs
CLP SOW ILM02.1	CLP TAL Metals/Cyanide; Dissolved Metals
S3550/9071/418.1	SW-846 Total Petroleum Hydrocarbons
EPA 901.1	EPA-EMSL Gamma Scan

6.0 COMPLETENESS

Completeness is the quantitative measure of the amount of data obtained from a measurement process compared with the amount expected to be obtained under the conditions of measurement. The completeness goal for laboratory analysis for this project was 96 percent useable data. Unusable analytical data are those results reported by the laboratory but rejected during the data validation process. A summary of the completeness goal for NAS Jacksonville RI/FS for OU-1 is provided in Table 6-1. For more detailed completeness goal tables, please refer to Appendix C.

TABLE 6-1
COMPLETION GOAL (>96%)

	<u>QC</u>	<u>MW</u>	<u>SB</u>	<u>OVERALL</u>
VOA	85.4	100.0	80.0	88.5
SVOA	100.0	100.0	100.0	100.0
P/PCB	100.0	100.0	100.0	100.0
D/F	100.0	100.0	100.0	100.0
T.M.	99.8	100.0	98.8	99.5
D.M.	100.0	100.0	NA	100.0
TPH	100.0	100.0	100.0	100.0
RAD	100.0	100.0	100.0	100.0

MATRIX KEY

QC = QC Samples
MW = Water Samples
SB = Soil Samples

The analytical data met the 96 percent completeness goal for every fraction for every matrix with the exception of the volatiles. The volatiles fraction fell below the completeness goal because eight (8) samples were analyzed well outside holding times which required the sample results to be rejected, R. The metals fraction contained rejected data also, but the completion goal was met. All circumstances upon which the data were rejected were discussed in the body of the narrative. The narrative following describes any extenuating factors involved in the data resolution. The average completeness for the project was ninety-eight point five percent (98.5%).

Semivolatiles and Pesticides/PCBs One sample, MW50101, was analyzed at a dilution for the semivolatile and pesticides fractions. The dilution for the semivolatiles was not required because all results were within the linear range of the instrument in the undiluted analysis. Therefore, the diluted sample run was rejected. The dilution run for the pesticides fraction was required to quantitate alpha-BHC. All other compounds from the dilution analysis were rejected. These actions do not constitute true rejections since viable results were obtained from the dilution analyses or the reanalysis. Therefore, the "rejections" were not counted in the rejection tables and did not affect the completeness results.

Volatiles/Semivolatiles Some sample data points were qualified for initial and/or continuing calibration deficiencies. All results qualified for calibration % RSD and % D deficiencies (J/UJ) are considered to be useable. For the compounds in the GC/MS volatile and semivolatile analyses that did not meet calibration criteria, all positive results are qualified as estimated (J) (%Ds >25%) and all non detect results are qualified as estimated (UJ) (>50% D <90%) due to calibration deficiencies. There was no data rejected for calibration deficiencies in any fraction.

Metals Positive sample data points for barium were qualified for non-compliant serial dilution results in samples associated with SDG U1106. All qualified results are considered usable.

7.0 PARCC SUMMARY

The purpose of evaluating the quality of the analytical data using the PARCC criteria was to address the qualification of the data in regards to evaluation of the presence, magnitude and characteristics of hazardous substances at NAS Jacksonville RI/FS for OU-1. Overall, the chemical analytical data are acceptable and exceeded the completion goal of 96 percent for all analytical fractions except the volatiles fraction for the QC water and soil fractions. Tables 7-1 and 7-2 provides a tabulation of the assessment of PARCC criteria for each SDG for groundwater samples, soil samples, and quality control samples, respectively.

7.1 Water Samples There were no rejections for this matrix for all the fractions.

7.2 Soil Samples The volatiles fraction had sixty-six (66) field sample data points rejected due to grossly exceeded holding times. The completion goal was met. The metals fraction had three (3) field sample data points rejected for matrix spike recovery of selenium less than 30%. The completion goal was met.

7.3 QC Water Samples The volatile fraction had one hundred and ninety-eight (198) data points rejected for grossly exceeded holding times. The completion goal was not met. The metals fraction had one (1) data point rejected due to matrix spike recovery of selenium less than 30%. The completion goal was met.

**TABLE 7-1
 PARCC CRITERIA SUMMARY
 WATER SAMPLES
 NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
U1106	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
U1107	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
U1108	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

**TABLE 7-2
PARCC CRITERIA SUMMARY
SOIL SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
U1105	ACCEPTABLE	ACCEPTABLE (1) WITH REJECTIONS	UNACCEPTABLE (2) ACCEPTABLE (3) WITH REJECTIONS	ACCEPTABLE	UNACCEPTABLE (2) ACCEPTABLE (2) (3) WITH REJECTIONS

- (1) Three (3) metals data points were rejected due to MS recovery of selenium less than 30%. Completeness goal was met.
- (2) Sixty-six (66) volatile data points were rejected due to grossly exceeded analytical hold times. Completion goal was not met.
- (3) Completion goals for all other fractions were met.

**TABLE 7-3
PARCC CRITERIA SUMMARY
QUALITY CONTROL SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
U1105	ACCEPTABLE	ACCEPTABLE (1) WITH REJECTIONS	UNACCEPTABLE (2) ACCEPTABLE (3) WITH REJECTIONS	ACCEPTABLE	UNACCEPTABLE (2) ACCEPTABLE (2) (3) WITH REJECTIONS
U1106	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
U1107	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
U1108	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

- (1) One (1) metals data point was rejected due to MS recovery of selenium less than 30%. Completeness goal was met.
- (2) One hundred and ninety-eight (198) volatile data points were rejected due to grossly exceeded analytical hold times. Completion goal was not met.
- (3) Completion goals for all other fractions were met.

REFERENCES

ABB Environmental Services, Inc. 1991. Navy Installation Restoration Program Plan, Naval Air Station, Jacksonville, Florida. Volume 5: Remedial Investigation/Feasibility Study Work Plan for OU1, Oil and Solvents Disposal Pits Area. Prepared for SOUTHNAVFACEGCOM. September. Updated 1993.

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Naval Energy and Environmental Support Activity (NEESA), 1988., Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program, Naval Energy and Environmental Support, 20.2-047B, June 1988.

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USEPA, 1990c., Statement of Work for Inorganic Analysis, Multi-Media, Multi-Concentration, United States Environmental Protection Agency Contracts Laboratory Program, Document No. ILM02.1, July 1988.

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Code of Federal Regulations, Number 40, Part 136, Appendix A, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, Method 1613.

USEPA, 1986., Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, September 1986. Total Petroleum Hydrocarbons, Method 9071.

USEPA, August 1988. Prescribed Procedures for Measurement of Radioactivity in Drinking Water. Gamma Emitting Radionuclides in Drinking Water, Method 901.1.

CROSS REFERENCE LIST

CLIENT SDG NUMBER		LABORATORY REFERENCE NUMBER
U1105		90205, 90209, 90217, 90218, 90222, 90224, 90223
U1106		90252, 90254, 90259, 90260, 90261, 90262 G44822, G44823 (LOW CONC. VOLATILES) 93-11205, 93-11180 (DIOXIN/FURANS)
U1107		90273, 90275, 90276, 90277, 90281, 90282
U1108		90283, 90284

APPENDIX A

CALIBRATION SUMMARY

TABLE A - 1

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i> <i>CCAL = CONTINUING CALIBRATION = %D</i>	SDG 90258	SDG U1106		SDG U1105	
	CCAL	ICAL1	ICAL1	ICAL1	CCAL1
DATE	120893	121393	121393	111693	112393
INSTRUMENT ID	FINNZ	FINNZ	FINNZ	4500	4500
CALIBRATION CRITERIA	%D	RSD	RSD	%D	RRF/%D
CHLOROETHANE					-53.9
CHLOROMETHANE	38.8	34.8	34.8		
ACETONE				89.8	44.8
2-HEXANONE				141.5	73.6

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90258

CCAL1: MW50001, MW50101

SDG U1106

ICAL1: MW00081EB, MW09301, MW10201, MW00046TB

SDG U1106

ICAL1: NONE

SDG U1105

ICAL1: NONE

CCAL1: SB00078EB, SB00039TB

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	U1105		SDG U1107		
	CCAL	ICAL1	ICAL1	CCAL1	CCAL2
DATE	112493	123093	121593	121593	121693
INSTRUMENT ID	5100	FINNZ	85100	5100	5100
CALIBRATION CRITERIA	%D	RSD	RSD	%D	%D
1,1,2,2-TETRACHLOROETHANE	36.6				
ACETONE		41.1	38.9	42.2	46.6
4-METHYL-2-PENTANONE		31.1		28.7	26.9
2-BUTANONE		31.4	28.3	38.5	36.5
1,2-DICHLOROETHANE-d4			27.1		27.9
2-HEXANONE		35.1		34.0	29.9

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG U1105

CCAL1: MW00075EB, SB00040TB, SB09001, SB10801, SB10801MS, SB10801MSD,
SB00042TB, SB00077EB, SB09601, SB10001, SB00078EB, SB00043TB
ICAL1: SB00073EB, SB00006FB, SB00038TB, SB00041TB, SB10601, SB00076EB,
SB10601DUP, SB09401

SDG U1106

ICAL1: MW00049TB, MW00084EB
CCAL1: MW10801MS, MW10801MSD, MW10801DUP, MW10701, MW10301, MW10401,
MW09701
CCAL2: MW10801

TABLE A - 1, CONTINUED

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	U1108		
	CCAL1	CCAL2	CCAL3
DATE	121593	121793	121893
INSTRUMENT ID	5100	5100	5100
CALIBRATION CRITERIA	%D	%D	%D
TRICHLOROETHENE		-28.8	-27.7
TETRACHLOROETHENE			-33.3
ACETONE	42.2	29.4	
4-METHYL-2-PENTANONE	28.7		
2-BUTANONE	38.5		
1,2-DICHLOROETHANE-d4		25.9	
2-HEXANONE	34.0		

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG U1108

CCAL1: MW00050TB, MW00085EB, MW09801, MW09901, MW11601, MW11501,
MW09001, MW09101

CCAL2: MW00051TB, MW08801, MW08801DUP

CCAL3: MW00086EB, MW08901, MW08601, MW08701, MW10901

TABLE A - 2

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i> <i>CCAL = CONTINUING CALIBRATION = %D</i>	SDG 90258		SDG U1106	SDG U1106	SDG U1106
	CCAL1	CCAL2	CCAL1	CCAL1	CCAL1
DATE	121093	121193	120993	120993	121093
INSTRUMENT ID	FINY	FINY	FINY	FINY	FINY
CALIBRATION CRITERIA	%D	%D	%D	%D	%D
2,4-DINITROPHENOL	29.5	31.7	33.3	33.3	29.5
4-NITROPHENOL	46.7	48.1	43.8	43.8	46.7
4-NITROANILINE	37.0	33.8	40.5	40.5	37.0
PENTACHLOROPHENOL			31.6	31.6	
2,4,6-TRIBROMOPHENOL			27.5	27.5	

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG 90258

CCAL1: MW50001, MW50101

CCAL2: MW50101DL

SDG U1106 (90252)

CCAL1: MW00007FB

SDG U1106 (90254)

CCAL1: MW00087EB, MW09301, MW10201

SDG U1106 (90259)

CCAL1: MW10601, MW10601MS, MW10601MSD, MW10601DUP, MW10501, MW09201,

MW10001, MW10101, MW00082EB, MW09501, MW09401, MW09601

TABLE A - 2, CONTINUED
INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

ICAL = INITIAL CALIBRATION = %RSD CCAL = CONTINUING CALIBRATION = %D	SDG U1105					
	CCAL1	CCAL2	CCAL3	CCAL4	CCAL5	CCAL6
DATE	111593	111693	111993	112093	120193	120693
INSTRUMENT ID	FINY	FINY	FINY	FINY	FINY	FINY
CALIBRATION CRITERIA	%D	%D	%D	%D	%D	%D
2,4-DINITROPHENOL	38.8	37.2	35.0	33.3	29.0	28.4
4-NITROPHENOL					31.0	32.4
4-NITROANILINE	34.5	34.5	39.4	30.3	38.7	39.8
4,6-DINITRO-2-METHYLPHENOL	29.9	29.9	27.8	27.1		
2,6-DINITROTOLUENE		26.2				
3-NITROANILINE		26.2				
3,3'-DICHLOROBENZIDINE			-38.2			
2,2'-OXYBIS(1-CHLOROPROPANE)				-25.6		
2,4,6-TRIBROMOPHENOL						28.0

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG U1105

CCAL1: SB00006FB, SB00074EB, SB00075EB

CCAL2: SB00073EB

CCAL3: SB08801, SB10001, SB10401, SB09001, SB10601, SB10601DUP,
 SB09401, SB1081MS, SB10801MSD, SB09601, SB10001

CCAL4: SB00076EB, SB00077EB, SB00078EB, SB00079EB

CCAL5: SB10801

CCAL6: SB09801

TABLE A - 2, CONTINUED

INITIAL AND CONTINUING CALIBRATION
SEMIVOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i> <i>CCAL = CONTINUING CALIBRATION = %D</i>	SDG U1108			SDG U1107
	CCAL1	CCAL2	CCAL3	CCAL1
DATE	011494	011494	011794	011494
INSTRUMENT ID	INCOS-XL	INCOS-XL	INCOS-XL	INCOS-XL
CALIBRATION CRITERIA	%D	%D	%D	%D
4-NITROPHENOL		26.0		
4-NITROANILINE		26.5		
4-CHLOROANILINE	26.3			26.3
TERPHENYL-d14	30.7			
PENTACHLOROPHENOL		27.0	31.5	

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG U1108

CCAL1: MW11301, MW11401, MW08401

CCAL2: MW08501, MW11201, MW11201MS, MW11201MS, MW11201DUP, MW11101

CCAL3: MW00087EB

SDG U1107

CCAL1: MW08901, MW08701, MW08601, MW10901, MW11001

APPENDIX B

SERIAL DILUTION SUMMARY

TABLE B - 1

**WATER SAMPLE SERIAL DILUTIONS
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE MW50101		SDG 90258
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	1.8
ANTIMONY	ug/L	79.0
ARSENIC	ug/L	NA
BARIUM	ug/L	2.4
BERYLLIUM	ug/L	6.2
CADMIUM	ug/L	27.3
CALCIUM	ug/L	NC
CHROMIUM	ug/L	14.3
COBALT	ug/L	4.7
COPPER	ug/L	17.1
IRON	ug/L	1.1
LEAD	ug/L	NA
MAGNESIUM	ug/L	1.0
MANGANESE	ug/L	0.8
MERCURY	ug/L	NA
NICKEL	ug/L	40.6
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	100
THALLIUM	ug/L	NA
VANADIUM	ug/L	3.8
ZINC	ug/L	11.1

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

90258: MW50001, MW50101, MW50201

COMPOUND	RPD
	WATER/SOI
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

**WATER SAMPLE SERIAL DILUTIONS
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE MW00007FB		SDG U1106
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	NC
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	NC
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	NC
CHROMIUM	ug/L	100
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	NC
LEAD	ug/L	NA
MAGNESIUM	ug/L	NC
MANGANESE	ug/L	NC
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	100
SODIUM	ug/L	100
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	NC

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90252: MW00007FB

COMPOUND	RPD
	WATER/SOI
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

WATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW09301		SDG U1106
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	0.7
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	2.6
BERYLLIUM	ug/L	21.8
CADMIUM	ug/L	100
CALCIUM	ug/L	0.5
CHROMIUM	ug/L	5.6
COBALT	ug/L	129
COPPER	ug/L	7.0
IRON	ug/L	0.5
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.5
MANGANESE	ug/L	1.0
MERCURY	ug/L	NA
NICKEL	ug/L	100
POTASSIUM	ug/L	2.4
SELENIUM	ug/L	NA
SILVER	ug/L	127
SODIUM	ug/L	1.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	3.6
ZINC	ug/L	3.3

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

U1106

90254: MW09301, MW10201

COMPOUND	RPD
	WATER/SOI
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

WATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW10601		SDG U1106
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	6.6
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	*23.5
BERYLLIUM	ug/L	100
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.4
CHROMIUM	ug/L	78.7
COBALT	ug/L	100
COPPER	ug/L	100
IRON	ug/L	3.0
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.6
MANGANESE	ug/L	0.1
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100
SELENIUM	ug/L	NA
SILVER	ug/L	157
SODIUM	ug/L	0.6
THALLIUM	ug/L	NA
VANADIUM	ug/L	100
ZINC	ug/L	9.0

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90259: MW10601, MW00083EB, MW10601DUP, MW10501, MW09201, MW10001, MW10101,

MW00082EB, MW09501, MW09401, MW09601

COMPOUND	RPD
	WATER/SOI
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

WATER SAMPLE SERIAL DILUTIONS
 TOTAL METALS SUMMARY TABLE
 NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW11201		SDG U1108
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	3.9
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	5.1
BERYLLIUM	ug/L	104
CADMIUM	ug/L	NC
CALCIUM	ug/L	3.0
CHROMIUM	ug/L	39.8
COBALT	ug/L	NC
COPPER	ug/L	100
IRON	ug/L	1.8
LEAD	ug/L	NA
MAGNESIUM	ug/L	3.4
MANGANESE	ug/L	0.5
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	4.3
THALLIUM	ug/L	NA
VANADIUM	ug/L	22.1
ZINC	ug/L	29.6

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1108

90083: MW00087EB, MW11301, MW11401, MW08401, MW08501, MW11201,
 MW11201DUP, MW11101

COMPOUND	RPD
	WATER/SOI
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 1, CONTINUED

WATER SAMPLE SERIAL DILUTIONS
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW10801		SDG U1107
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	0.2
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	6.1
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	1.5
CHROMIUM	ug/L	100
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	0.6
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.2
MANGANESE	ug/L	2.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.9
THALLIUM	ug/L	NA
VANADIUM	ug/L	100
ZINC	ug/L	1.9

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1107

90273: MW10801, MW00084EB, MW10801DUP, MW10701, MW10301, MW10401,
MW09701

90276: MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001,
MW09101

90281: MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601,
MW10901, MW11001

COMPOUND	RPD
	WATER/SOI
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2

**WATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE MW10601		U1106
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	100
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIIUM	ug/L	7.1
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.7
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	1.7
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.4
MANGANESE	ug/L	5.9
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	0.2
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	100

• - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90260: MW00082EB, MW00083EB, MW09201, MW09401, MW09501, MW09601,
MW10001, MW10101, MW10601, MW10501, MW10601 DUP

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED
WATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW09301		SDG U1106
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINIUM	ug/L	15.0
ANTIMONY	ug/L	100.0
ARSENIC	ug/L	NA
BARIUM	ug/L	5.9
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.1
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	1.1
LEAD	ug/L	NA
MAGNESIUM	ug/L	2.3
MANGANESE	ug/L	6.7
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	138.5
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.5
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	53.1

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90261: MW00081EB, MW09301, MW10201

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED

WATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1

SAMPLE MW00007FB		SDG U1106
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	NC
ANTIMONY	ug/L	100.0
ARSENIC	ug/L	NA
BARIUM	ug/L	NC
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	63.1
CALCIUM	ug/L	79.1
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	45.3
LEAD	ug/L	NA
MAGNESIUM	ug/L	NC
MANGANESE	ug/L	100.0
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	42.5
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	91.1

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES
NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1106

90262: MW00007FB

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 2, CONTINUED

**WATER SAMPLE SERIAL DILUTIONS
DISSOLVED METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE MW11201		U1108
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	NC
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	4.5
BERYLLIUM	ug/L	NC
CADMIUM	ug/L	NC
CALCIUM	ug/L	0.7
CHROMIUM	ug/L	NC
COBALT	ug/L	NC
COPPER	ug/L	NC
IRON	ug/L	0.6
LEAD	ug/L	NA
MAGNESIUM	ug/L	0.7
MANGANESE	ug/L	4.2
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	100.0
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	1.2
THALLIUM	ug/L	NA
VANADIUM	ug/L	NC
ZINC	ug/L	NC

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1108

90284: MW00087EB, MW11301, MW11401, MW08401, MW08501, MW11201,
MW11201DUP, MW11101

90275: MW00084EB, MW10801, MW10801DUP, MW10701, MW10301, MW10401,
MW09701

90277: MW00085EB, MW09801, MW09901, MW11601, MW11501, MW09001, MW09101

90282: MW00086EB, MW08801, MW08801DUP, MW08901, MW08701, MW08601,
MW10901, MW11001

COMPOUND	RPD
	WATER/SOIL
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

TABLE B - 3

**SOIL SAMPLE SERIAL DILUTION
TOTAL METALS SUMMARY TABLE
NAS JACKSONVILLE RI/FS FOR OU-1**

SAMPLE SB08801		SDG U1105
%D = PERCENT DIFFERENCE		%D
METALS COMPOUNDS	UNITS	
ALUMINUM	ug/L	5.3
ANTIMONY	ug/L	NC
ARSENIC	ug/L	NA
BARIUM	ug/L	14.2
BERYLLIUM	ug/L	112.8
CADMIUM	ug/L	NC
CALCIUM	ug/L	9.4
CHROMIUM	ug/L	50.5
COBALT	ug/L	NC
COPPER	ug/L	100.0
IRON	ug/L	4.9
LEAD	ug/L	NA
MAGNESIUM	ug/L	8.5
MANGANESE	ug/L	0.5
MERCURY	ug/L	NA
NICKEL	ug/L	NC
POTASSIUM	ug/L	NC
SELENIUM	ug/L	NA
SILVER	ug/L	NC
SODIUM	ug/L	147.0
THALLIUM	ug/L	NA
VANADIUM	ug/L	74.6
ZINC	ug/L	14.8

* - INDICATES VALUE OUTSIDE QC LIMITS

NC DENOTES NO CALCULATION DUE TO NON-DETECT RESULTS IN BOTH SAMPLES

NA DENOTES COMPOUND NOT ANALYZED FOR

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

SDG U1105

- 90205: SB08801
- 90209: SB10201, SB10401
- 90217: SB09001
- 90218: SB10601, SB10601DUP, SB09401
- 90222: SB10801
- 90223: SB09601, SB10001
- 90224: SB09801

COMPOUND	RPD
	WATER/SOI
ALL ICP COMPOUNDS	+/-10%

+/-10% RULES ONLY APPLIES TO RESULTS GREATER THAN 50 TIMES THE IDL

APPENDIX C

REJECTED DATA SUMMARY

TABLE C - 1
 GC/MS VOLATILES - REJECTED DATA
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	MW	SB
90258	0	2	0	0	0	0
90217	2	0	1	0	0	0
90222	2	0	1	0	0	0
90224	2	0	1	0	0	0
90254	2	2	0	0	0	0
# G44822 (90252)	3	6	0	0	0	0
# G44823 (90252)	1	4	0	0	0	0
90259	5	8	0	0	0	0
90283	3	6	0	0	0	0
90273	3	6	0	0	0	0
90276	2	6	0	0	0	0
90281	3	6	0	0	0	0
90205	3	0	1	99	0	0
90209	2	0	2	0	0	0
90218	3	0	2	99	0	66
90223	2	0	2	0	0	0
GRAND TOTAL	38	46	10	198	0	66
COMPLETION GOAL (>96%)				85.4%	100.0%	80.0%

OVERALL COMPLETENESS 88.5%

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SB = SURFACE SOIL SAMPLES

* 33 TARGET COMPOUNDS PER SAMPLE
 # 58 TARGET COMPOUNDS PER SAMPLE (LOW CONC. VOAs)

**TABLE C - 2
SEMIVOLATILES - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	MW	SB
90258	0	2	0	0	0	0
90217	1	0	1	0	0	0
90222	1	0	1	0	0	0
90224	1	0	1	0	0	0
90254	1	2	0	0	0	0
90252	1	0	0	0	0	0
90259	3	8	0	0	0	0
90283	2	6	0	0	0	0
90273	2	6	0	0	0	0
90276	1	6	0	0	0	0
90281	2	6	0	0	0	0
90205	2	0	1	0	0	0
90209	1	0	2	0	0	0
90218	2	0	2	0	0	0
90223	1	0	2	0	0	0
GRAND TOTAL	21	36	10	0	0	0
COMPLETION GOAL (>96%)				100.0%	100.0%	100.0%

OVERALL COMPLETENESS 100.0%

MATRIX KEY

- QC = QC SAMPLES
- MW = GROUNDWATER SAMPLES
- SB = SURFACE SOIL SAMPLES

* 64 TARGET COMPOUNDS PER SAMPLE

**TABLE C - 3
DIOXIN/FURAN - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	MW	SB
	QC	MW	SB			
93-11180	4	0	4	0	NA	0
93-11205	5	0	6	0	NA	0
GRAND TOTAL	9	NA	10	0	NA	0
COMPLETION GOAL (>96%)				100.0%	NA	100.0%

OVERALL COMPLETENESS
100.0%

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SB = SURFACE SOIL SAMPLES
 NA = NOT APPLICABLE TO THIS FRACTION

*** 17 TARGET CONGENERS//ISOMERS PER SAMPLE**

TABLE C - 4
PESTICIDES/PCBS - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	MW	SB
90258	0	2	0	0	0	0
90217	1	0	1	0	0	0
90222	1	0	1	0	0	0
90224	1	0	1	0	0	0
90254	1	2	0	0	0	0
90252	1	0	0	0	0	0
90259	3	8	0	0	0	0
90283	2	6	0	0	0	0
90273	2	6	0	0	0	0
90276	1	6	0	0	0	0
90281	2	6	0	0	0	0
90205	2	0	1	0	0	0
90209	1	0	2	0	0	0
90218	2	0	2	0	0	0
90223	1	0	2	0	0	0
GRAND TOTAL	21	36	10	0	0	0
COMPLETION GOAL (>96%)				100.0%	100.0%	100.0%

OVERALL COMPLETENESS 100.0%
--

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SB = SURFACE SOIL SAMPLES

* 28 TARGET COMPOUNDS PER SAMPLE

TABLE C - 5
 METALS/CYANIDE - REJECTED DATA
 NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	MW	SB
90258	0	2	0	0	0	0
90217	1	0	1	0	0	0
90222	1	0	1	0	0	1
90224	1	0	1	0	0	0
90254	1	2	0	0	0	0
90252	1	0	0	0	0	0
90259	3	8	0	0	0	0
90283	2	6	0	0	0	0
90273	2	6	0	0	0	0
90276	1	6	0	0	0	0
90281	2	6	0	0	0	0
90205	2	0	1	0	0	0
90209	1	0	2	0	0	1
90218	2	0	2	1	0	0
90223	1	0	2	0	0	1
GRAND TOTAL	21	36	10	1	0	3
COMPLETION GOAL (>96%)				99.8%	100.0%	98.8%

OVERALL COMPLETENESS 99.5%

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SB = SURFACE SOIL SAMPLES

• 24 TARGET ANALYTES/COMPOUNDS PER SAMPLE

**TABLE C - 6
DISSOLVED METALS - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	MW	SB
	QC	MW	SB			
90260	3	8	NA	0	0	NA
90261	1	2	NA	0	0	NA
90262	1	0	NA	0	0	NA
90284	2	6	NA	0	0	NA
90275	2	6	NA	0	0	NA
90277	1	6	NA	0	0	NA
90282	2	6	NA	0	0	NA
GRAND TOTAL	12	34	NA	0	0	NA
COMPLETION GOAL (>96%)				100.0%	100.0%	NA

OVERALL
COMPLETENESS
100.0%

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SB = SURFACE SOIL SAMPLES
 NA = NOT APPLICABLE TO THIS FRACTION

* 23 TARGET ANALYTES PER SAMPLE

TABLE C - 7
TOTAL PETROLEUM HYDROCARBONS - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	MW	SB
90217	1	0	1	0	0	0
90222	1	0	1	0	0	0
90224	1	0	1	0	0	0
90254	1	2	0	0	0	0
90252	1	0	0	0	0	0
90259	3	8	0	0	0	0
90283	2	6	0	0	0	0
90273	2	6	0	0	0	0
90276	1	6	0	0	0	0
90281	2	6	0	0	0	0
90205	2	0	-1	0	0	0
90209	1	0	2	0	0	0
90218	2	0	2	0	0	0
90223	1	0	2	0	0	0

GRAND TOTAL	21	34	10	0	0	0
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COMPLETION GOAL (>96%)			100.0%	100.0%	100.0%
------------------------	--	--	--------	--------	--------

OVERALL COMPLETENESS 100.0%

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SB = SURFACE SOIL SAMPLES

• 1 TARGET COMPOUND PER SAMPLE

TABLE C - 8
RADIOLOGICAL NUCLIDES - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX			# OF COMPOUNDS REJECTED PER MATRIX		
				QC	MW	SB
90217	1	0	1	0	0	0
90222	1	0	1	0	0	0
90224	1	0	1	0	0	0
90254	1	2	0	0	0	0
90252	1	0	0	0	0	0
90259	3	8	0	0	0	0
90283	2	6	0	0	0	0
90273	2	5	0	0	0	0
90276	1	6	0	0	0	0
90281	2	6	0	0	0	0
90205	2	0	1	0	0	0
90209	1	0	2	0	0	0
90218	2	0	2	0	0	0
90223	1	0	2	0	0	0
GRAND TOTAL	21	33	10	0	0	0
COMPLETION GOAL (>96%)				100.0%	100.0%	100.0%

OVERALL COMPLETENESS 100.0%

MATRIX KEY

QC = QC SAMPLES
 MW = GROUNDWATER SAMPLES
 SB = SURFACE SOIL SAMPLES

* 11 TARGET NUCLIDES PER SAMPLE

APPENDIX P-3.3

ROUND 2 RESAMPLING EVENT AND SUPPLEMENTAL DPT

**PRECISION, ACCURACY, REPRESENTATIVENESS,
COMPARABILITY, AND COMPLETENESS FOR
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
FOR OPERABLE UNIT NO. 1 (OU1) OF THE
NAVAL AIR STATION JACKSONVILLE, FLORIDA
ROUND 2**

**NAVAL AIR STATION
JACKSONVILLE, FLORIDA**

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May 1994

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1.0 INTRODUCTION

Prior to evaluating the data for precision, accuracy, representativeness, comparability, and completeness (PARCC) criteria the laboratory reviewed the data package and the data also was independently reviewed and validated using the Naval Energy and Environmental and Support Activity (NEESA) guidance document 20.2-047B (1988) entitled, *Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Program*. Before the laboratory released the chemical analytical results, both the sample and laboratory QC data were carefully reviewed in order to verify sample identity, instrument calibration, detection limits, dilution factors, numerical computations, accuracy of transcriptions, and chemical interpretations. Additionally, the QC data were reduced and spike recoveries were included in control charts, and the resulting data were reviewed to ascertain whether they were within the laboratory defined limits for accuracy and precision. The data was compiled into a NEESA Level D data package and any nonconforming data were discussed in the data package cover letter and case narrative.

The Level D data package was then reviewed and validated by Heartland Environmental Services, Inc., Missouri (Heartland). Data validation is the technical review of a data package using criteria established in the data quality objectives, the quality assurance project plan and guidance documents prepared by the United States Environmental Protection Agency (USEPA) for the validation of organic and inorganic analytical data (USEPA 1990a and 1990b) as specified by NEESA document 20.2-047B.

Samples that did not meet the acceptance limit criteria were qualified with a flag; single letter abbreviations that indicate a problem with the data. Data qualifiers used by the validators when amending the data include the following.

- U Undetected. The analyte was not detected above the contract required quantitation limit (CRQL). The "U" designator also is used to qualify common laboratory contaminants. The "U" designator is applied to an environmental sample when the common laboratory contaminant is detected in an environmental sample at a concentration less than 5 times (10 times for common laboratory contaminants) the value of the concentration detected in any corresponding field QC blank, method blank or preparation blanks.
- J Estimated. The analyte was present, but the reported value may not be accurate or precise. The "J" designator is used to qualify an analyte that was present at a concentration between the CRQL and method detection limit (MDL) or the data "failed" some of the analytical validation criteria but not sufficient to reject the data and when combined with the U designator the quantitation limit is estimated.
- R Rejected. Data was rejected by the data validator during comparison of the NEESA Level D data package with the analytical functional guideline criteria. The "R" designator indicates a significant variance in acceptable laboratory performance. Either re-analysis or re-sampling and analysis would be necessary to determine the presence or absence of the target analyte(s).

Once the data were reviewed and validated according to the guidance presented in NEESA document 20.2-047B, the data were evaluated by Heartland using the PARCCs criteria included in the Data Quality Objectives (DQOs) of the Work Plan for Navy Installation Restoration Program Plan, NAS Jacksonville, Florida. The following sections present a brief description of PARCCs criteria.

Precision. Precision is a measure of the agreement or repeatability of a set of replicate results obtained from duplicate laboratory analyses of samples collected from the same location/depth interval. Precision was calculated from laboratory analytical data and cannot be measured directly. Precision is expressed as the Relative Percent Difference (RPD) between analytical values for two samples divided by the average of their analytical values. Precision is calculated using the expression:

$$\text{RPD} = (D1-D2) / (\frac{1}{2}(D1 + D2)) \times 100$$

D1 and D2 are the reported values for the duplicate sample pair. Precision was evaluated using field duplicate samples and laboratory split samples (for example, MS/MSD samples).

Precision for environmental samples and their duplicates was assessed using a maximum RPD of 20 Percent for the groundwater matrix. Precision for MS/MSD/MD samples was assessed by using the target analyte specific RPD criteria for the spiked compounds and the sample duplicates.

Accuracy. Accuracy is a measure of the agreement between an experimental determination and the true value of the parameter being measured. Accuracy can be calculated from the analytical data and was not measured directly. Accuracy is used to identify the bias in a given measurement system (i.e. laboratory conditions, sample matrix, and sampling conditions). Accuracy is assessed by reviewing the Percent Recovery (%R) between the true value of the spike analyte and the actual analytical value. Accuracy is calculated using the equation:

$$\%R = (A-B)/C \times 100$$

A = Measured concentration of the spiked analyte.

B = Measured concentration of the spiked compound in the unspiked sample.

C = True concentration of the spiked analyte.

For the volatile analysis, each of the samples was spiked with a surrogate compound. This approach provides a measure of the matrix effects on the analytical accuracy.

Representativeness. Representativeness is a qualitative measure of the degree to which sample data accurately and precisely represent a characteristic environmental condition. Representativeness is a subjective parameter and is used to evaluate the efficacy of the sampling plan design. Representativeness was evaluated using the field and laboratory QC blank sample results. QC blank samples are equipment rinseate blanks, field blanks, trip blanks, laboratory method blanks for organic analysis and laboratory preparation blanks for inorganic analysis. Positive detection of target analytes in the QC blank samples identify contaminants that possibly were introduced to the associated environmental sample during sample collection, transport or laboratory analysis. Representativeness is also assessed utilizing extraction (where applicable), and analytical holding times requirements set forth in the methodologies and/or the functional guidelines.

Comparability. Comparability is qualitative measure designed to express the confidence with which one data set may be compared to another. Factors that affect comparability are: sample collection and handling techniques, sample matrix type, and analytical method. Comparability is limited by the other PARCC parameters because only when precision and accuracy are known can data sets be compared with confidence.

Completeness. Completeness is defined as the percentage of measurements that are judged to be valid compared to the total number of measurements made. Valid usable data are values that were not qualified as rejected (R qualifier) during data validation. A goal of 96 percent usable data was established in the Work Plan for NAS Jacksonville RI/FS for OU-1. Completeness equals the total number of analytes for each matrix minus the total number of rejected analytes divided by the total number of analytes multiplied by 100.

2.0 PRECISION

The following section describes the evaluation of precision for volatile organic compounds. Duplicate samples are evaluated for precision only when contaminants are detected in both the environmental sample and the sample's duplicate. A ND in the RPD column of the precision table indicates that a RPD calculation was not required because one (1) concentration was non-detect and the other concentration was less than the compound CRQL. Environmental samples and their respective duplicates may not exhibit positive results for all compounds found at or near the contract required quantitation limit (CRQL) or practical quantitation limit (PQL) because of low levels of contamination found at a site. Duplicates with Relative Percent Differences (RPDs) within control limits indicate adequate sampling practices and/or good analytical precision. Duplicates with RPDs outside the control limits may result from inappropriate sampling procedures, matrix interferences, or non-homogeneity of the sample matrix. In addition, poor precision can be attributed to deviation(s) from the analytical methodology or to poor reproducibility of target analyte concentrations at or near the required quantitation limits (CRQLs). The acceptance criteria for evaluating precision of field duplicate analytical results is a RPD of twenty percent (20%) for the water matrix and a RPD of thirty-five percent (35%) for the soil matrix.

Field duplicates were submitted for validation for the volatile fraction. The percentage of duplicate samples collected for this project was equal to or above ten percent for the water and soil matrices for the volatile fraction.

The following Sections summarize the evaluation of analytical precision for the cone penetrometer water samples and the soil boring samples for the following analytical group:

- GC/MS volatile organic compounds (GC/MS VOCs);

Duplicate precision was assessed using both environmental sample and associated duplicates and matrix spike (MS) and matrix spike duplicates (MSDs).

Tabulation of the results of assessing duplicate precision and duplicate frequency are presented in Table 2-1 and Table 2-2. Tabulation of the results assessing precision based on the reproducibility between spike sample/spike duplicate/matrix duplicate sample pairs are presented in Table 2-3 and 2-4.

In addition, to assess whether instrument calibration for volatile method resulted in non-compliant duplicate precision, tables were made of calibrations for each sample delivery group (SDG) which exhibited non-compliant calibrations. These are included in Appendix A.

2.1 Cone Penetrometer Water Matrix

The assessment of cone penetrometer water matrix environmental samples and associated duplicates for precision is provided in Table 2-1.

The volatile analysis of the field duplicate pair of sample U1CW09302 exhibited non-compliant RPDs for seven (7) of the eight (8) compounds requiring RPD calculation (Table 2-1). The non-compliant compounds were vinyl chloride, acetone, 1,1-dichloroethane, 1,2-dichloroethene (total), 1,2-dichloroethane, trichloroethene, and benzene. The compound 1,1-dichloroethane was detected at concentrations below the CRQL in both the original sample and the field duplicate sample. The non-compliance for 1,1-dichloroethane is attributed to the low concentrations detected. The non-compliance for the compounds vinyl chloride and 1,2-dichloroethene (total) was slight (21% for both), and may be attributed to laboratory inconsistencies. The compound trichloroethene was

TABLE 2 - 1

GC/MS VOLATILE ORGANIC COMPOUNDS
CONE PENETROMETER WATER SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1115	U1CW09302	WATER	7	VINYL CHLORIDE	91	74	20%	21%
				ACETONE	50	19	20%	90%
				CARBON DISULFIDE	7	0	20%	ND
				1,1-DICHLOROETHENE	21	23	20%	9%
				1,1-DICHLOROETHANE	4	9	20%	77%
				1,2-DICHLOROETHENE (TOTAL)	260	210	20%	21%
				1,2-DICHLOROETHANE	11	21	20%	63%
				2-BUTANONE	0	6	20%	ND
				TRICHLOROETHENE	1100	840	20%	27%
				BENZENE	58	94	20%	47%
ETHYLBENZENE	4	0	20%	ND				

TOTAL SAMPLES 7

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
14.3%	4	7	36.4%

TABLE 2 - 2**GC/MS VOLATILE ORGANIC COMPOUNDS
SOIL SAMPLE AND DUPLICATE PRECISION
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG	SAMPLE ID	MATRIX	NO. ASSC. SAMPLES	COMPOUND	SAMPLE CONC.	DUP CONC	MAX RPD	RPD
U1115	U1SB09901	WATER	2	METHYLENE CHLORIDE	16	20	35%	22%

TOTAL SAMPLES 2

% OF DUPLICATES COLLECTED	RPD IN	RPD OUT	% WITHIN RPD LIMIT
50.0%	1	0	100.0%

TABLE 2 - 3

**GC/MS VOLATILE ORGANICS COMPOUNDS
CONE PENETROMETER WATER SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE SAMPLE U1CW09301 MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG U1115		
		MS	MSD	
		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	117	127	8
TRICHLOROETHENE	ug/L	105	*123	*16
BENZENE	ug/L	101	118	*16
TOLUENE	ug/L	122	120	2
CHLOROBENZENE	ug/L	110	118	7

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

U1115

U1CW09301, U1CW09302, U1CW09302DL, U1CW09302DUP, U1CW09302DDL, U1CW09401,
U1CW09501, U1CW09601, U1CW09701, U1CW09801

MS = MATRIX SPIKE SAMPLE U1CW09302 MSD = MATRIX SPIKE DUPLICATE RPD = RELATIVE PERCENT DIFFERENCE		SDG U1115		
		MS	MSD	
		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	95	76	*22
TRICHLOROETHENE	ug/L	*-622	*-999	*47
BENZENE	ug/L	77	*24	*105
TOLUENE	ug/L	112	114	2
CHLOROBENZENE	ug/L	112	117	4

* DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

U1115

U1CW09301, U1CW09302, U1CW09302DL, U1CW09302DUP, U1CW09302DDL, U1CW09401,
U1CW09501, U1CW09601, U1CW09701, U1CW09801

COMPOUND	ADVISORY LIMITS	RPD
	%R WATER	WATER
1,1-DICHLOROETHENE	61%-145%	14
TRICHLOROETHENE	71%-120%	14
BENZENE	76%-127%	11
TOLUENE	76%-125%	13
CHLOROBENZENE	75%-130%	13

TABLE 2 - 4

**GC/MS VOLATILE ORGANICS COMPOUNDS
SOIL SAMPLE MATRIX SPIKE/MATRIX SPIKE DUPLICATES
NAS JACKSONVILLE RI/FS FOR OU-1**

MS = MATRIX SPIKE <i>SAMPLE U1SB09901</i>		SDG U1115		
MSD = MATRIX SPIKE DUPLICATE		MS	MSD	
RPD = RELATIVE PERCENT DIFFERENCE		%R	%R	%RPD
VOA COMPOUNDS	UNITS			
1,1-DICHLOROETHENE	ug/L	111	114	3
TRICHLOROETHENE	ug/L	107	98	9
BENZENE	ug/L	105	102	3
TOLUENE	ug/L	104	104	0
CHLOROBENZENE	ug/L	106	96	10

*** DENOTES VALUE NOT WITHIN QA/QC ADVISORY LIMITS**

CORRESPONDING SDG'S AND ASSOCIATED SAMPLES

U1115

U1SB09901, U1SB09901DUP

COMPOUND	ADVISORY LIMITS	RPD
	%R SOIL	SOIL
1,1-DICHLOROETHENE	59%-172%	22
TRICHLOROETHENE	62%-137%	24
BENZENE	66%-142%	21
TOLUENE	59%-139%	21
CHLOROBENZENE	60%-133%	21

reported from a dilution analysis in the original sample because the undiluted analysis concentration was above the linear range. The concentration reported in the field duplicate sample was from the undiluted analysis and it was qualified as estimated, J, because the concentration was above the linear range. The compound was not reported from the diluted analysis in the field duplicate because of poor precision between the undiluted and the diluted sample results. The non-compliance for trichloroethene was slight (27%), and may be attributed to laboratory inconsistencies. The compounds acetone, 1,2-dichloroethane, and benzene exhibited non-compliant RPDs which may be attributed to field inconsistencies. According to the laboratory, one of the field duplicate pair VOA vials was received with headspace, the water was of varying colors, and various amounts of muddy soil was present in the vials. Assessment of the calibrations associated with the analysis of the field duplicate pair indicate that all criteria was met for the non-compliant compound (Appendix A, Table A-1).

The volatile analysis of the MS/MSD pair of sample U1CW09301 exhibited two (2) spike compounds with non-compliant RPDs. The non-compliant compounds were trichloroethene and benzene. The RPD values were affected by the higher percent recovery (%R) in the MSD sample than in the MS sample. However, based on the assessment of additional QC criteria, the data did not require qualification.

The volatile analysis of the MS/MSD pair of sample U1CW09302 exhibited three (3) spike compounds with non-compliant RPDs. The non-compliant compounds were 1,1-dichloroethene, trichloroethene, and benzene. The RPD values for 1,1-dichloroethene and benzene were affected by the higher percent recovery (%R) in the MS sample than in the MSD sample. However, based on the assessment of additional QC criteria, the data for these compounds did not require qualification. The compound trichloroethene exhibited negative percent recoveries (%R) in both the MS and the MSD, with the higher negative value in the MSD. These negative recoveries affected the precision result. Positive values reported for trichloroethene in associated samples were qualified as estimated, J, due to the poor precision and negative recoveries noted.

Based on the assessment of the cone penetrometer matrix for precision, the analytical data was acceptable for the SDG, with the noted potential for bias in the trichloroethene results in the field duplicate sample U1CW09302DUP, and samples U1CW09302, U1CW09302DL, U1CW09302DDL.

2.2 Soil Boring Matrix

The assessment of the soil boring matrix environmental samples and associated duplicates for precision is provided in Table 2-2.

The volatile analysis of the field duplicate pair of sample U1SB09901 exhibited an acceptable RPD for the only compound detected, methylene chloride (Table 2-2). The soil boring MS/MSD pair exhibited acceptable precision between all spike compounds (Table 2-4).

3.0 ACCURACY

The assessment of accuracy is evaluated by comparison of the percent recoveries (%R) computed from the known concentration of analyte spikes and their recovered concentration versus the analytical method acceptance criteria. Spike recoveries provide an indication of bias, where the reported data may either overestimate or underestimate the actual concentration of detected compounds and/or the detection limits. Recoveries outside acceptable criteria may be caused by factors such as matrix interference, poor analytical precision, or instrument calibration.

The following Sections summarize the evaluation of analytical accuracy for the water and soil boring matrices for the following analytical groups:

- GC/MS volatile organic compounds (GC/MS VOCs);

Accuracy was assessed using MS and MSD samples for the volatiles analyses, as well as surrogate compound recoveries. The results of the evaluation of accuracy for the MS/MSD samples are provided in Table 2-3 and Table 2-4. The results of the evaluation of accuracy for the surrogates in the samples are provided in Table 3-1 and 3-2.

3.1 Water Matrix

The volatile MS/MSD pair of sample U1CW09301 exhibited one (1) compound, trichloroethene, which was recovered above the QC limit in the MSD (Table 2-3). However, based on the assessment of additional QC criteria the non-compliant recovery did not result in qualification of the data.

The volatile MS/MSD pair of sample U1CW09302 exhibited one (1) compound, trichloroethene, which was recovered at a negative value in both the MS and the MSD (Table 2-3). Positive results for the compound trichloroethene were qualified as estimated, J, in associated samples. The compound benzene was recovered below the QC limit in the MSD sample. However, based on the assessment of additional QC criteria the non-compliant recovery did not result in qualification of the data.

The surrogate compound recoveries for the volatiles fraction (Table 3-1) were within QC limits in all samples.

Based on an overall assessment of MS/MSD and surrogate sample accuracy evaluation criteria, the water matrix analytical data was acceptable for each SDG, with the noted potential for bias in positive trichloroethene results.

3.2 Soil Boring Matrix

The volatile MS/MSD pair of sample U1SB09901 exhibited acceptable recoveries for all spike compounds (Table 2-4).

The surrogate compound recoveries for the volatiles fraction (Table 3-2) were within QC limits in all samples.

Based on an overall assessment of MS/MSD and surrogate sample accuracy evaluation criteria, the soil matrix analytical data was acceptable for each SDG.

TABLE 3.1

SURROGATE % RECOVERIES
 GC/MS VOLATILE WATER SAMPLES
 NAS JACKSONVILLE OU-1

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
U1115	U1CW00009FB	99	102	106	0
	U1CW00062TB	101	101	103	0
	U1CW00063TB	95	107	104	0
	U1CW00097EB	102	102	104	0
	U1CW00099EB	93	102	106	0
	U1CW09301	105	103	102	0
	U1CW09302	102	102	104	0
	U1CW09302DDL	105	104	103	0
	U1CW09302DL	105	103	103	0
	U1CW09302DUP	100	100	109	0
	U1CW09401	105	102	103	0
	U1CW09501	106	103	104	0
	U1CW09601	103	103	107	0
	U1CW09701	105	104	106	0
	U1CW09801	110	104	107	0
	U1SB00098EB	99	100	104	0
	U1SB00101EB	101	111	105	0
	U1CW09301MS	108	101	104	0
	U1CW09301MSD	103	103	106	0
	U1CW09302MS	100	100	107	0
	U1CW09302MSD	99	101	108	0

SMC1 = TOLUENE-D8

QC LIMITS 88% - 110%

SMC2 = BROMOFLUOROBENZENE

QC LIMITS 86% - 115%

SMC3 = 1,2-DICHLOROETHANE-D4

QC LIMITS 76% - 114%

# SAMPLES	% REC IN	% REC OUT	% TOTAL IN
21	21	0	100.0%

TABLE 3.2

**SURROGATE % RECOVERIES
GC/MS VOLATILE SOIL SAMPLES
NAS JACKSONVILLE OU-1**

SDG	SAMPLE ID	SMC1	SMC2	SMC3	TOTAL OUT
U1115	U1SB09301	99	102	106	0
	U1SB09901	101	101	103	0
	U1SB09901DUP	95	107	104	0
	U1SB09901MS	102	102	104	0
	U1SB09901MSD	93	102	106	0

SMC1 = TOLUENE-D8

QC LIMITS 84% - 138%

SMC2 = BROMOFLUOROBENZENE

QC LIMITS 59% - 113%

SMC3 = 1,2-DICHLOROETHANE-D4

QC LIMITS 70% - 121%

# SAMPLES	% REC IN	%REC OUT	% TOTAL IN
5	15	0	100.0%

4.0 REPRESENTATIVENESS

Representativeness of the environmental sample analytical data was assessed using trip blanks, field blanks, equipment rinseate blanks, laboratory method blanks, and extraction and analytical holding times. The environmental samples and associated blanks were analyzed for the following target analyte groups:

- GC/MS volatile organic compounds (GC/MS VOCs);

The assessment of representativeness is summarized in tabular form for each type of blank, trip blank results are summarized in Table 4-1, field blank results are summarized in Table 4-2, equipment rinseate blank results are summarized in Table 4-3, and method blank results are summarized in Tables 4-4.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation by Heartland. The corrective action consisted of amending the laboratory reported results for organic and inorganic target analytes by the criteria. The following describes the Validation Qualifier code in the blank summary tables.

Organic Target Analytes

- CRQL Validation Qualifier. If a sample result for the blank contaminant was less than the CRQL and less than 5 times (10 times for common laboratory contaminants) the blank value, the sample result was rejected and amended as estimated non-detected at the CRQL for the target compound.
- U Validation Qualifier. If a sample result for the blank contaminant was greater than the sample CRQL and less than 5 times (10 times for common laboratory contaminants) the blank value, the sample result for the blank contaminant was amended as non detect at the concentration reported in the sample results.
- No Action (NA). If a sample result for the blank contaminant was greater than the CRQL and 5 times (10 times for common laboratory contaminants) the blank value, the result was not amended.

4.1 Trip Blanks

Trip blanks contained organic free deionized water from the laboratory and consisted of sample bottles which were similar to the environmental sample containers. The trip blanks were prepared and packaged at the laboratory prior to the sampling event and traveled with the sample bottles to the site. The trip blank bottles were not opened at the site or anytime prior to laboratory analysis.

The one (1) volatile organic compound which was detected in one (1) of the trip blank samples is listed below:

- GC/MS Volatiles (Table 4-1)
acetone

The acetone is a common laboratory contaminant, and its presence may be attributed to laboratory and/or field contamination. Some of the field sample analytical results required qualification due to

TABLE 4 - 1

**GC/MS VOLATILES DETECTED IN TRIP BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	TB CONC.	UNITS	VALIDATION QUALIFIER
U1115	U1CW00062TB	U1CW00009FB, U1CW00097EB, U1SB00098EB, U1SB09301, U1CW09301, U1CW09302, U1CW09302DUP, U1CW09302MS, U1CW09302MSD, U1CW09401, U1CW09501	NO CONTAMINATION FOUND			
	U1CW00063TB	U1CW09601, U1CW09701, U1CW09801 U1CW00099EB, U1SB00101EB, U1SB09901, U1SB09901DUP, U1SB09901MS, U1SB09901MSD	ACETONE ACETONE	12 12	ug/L ug/L	U

TABLE 4 - 2

**GC/MS VOLATILES DETECTED IN EQUIPMENT RINSEATE BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL	CONTAMINANT	RB	UNITS	VALIDATION
		SAMPLES		CONC.		QUALIFIER
U1115	U1CW00097EB	U1CW0009FB U1SB09301, U1CW09301, U1CW09302, U1CW09302DUP, U1CW09302MS, U1CW09302MSD, U1CW09401, U1CW09501	NO CONTAMINATION FOUND			
	U1SB00098EB	U1CW0009FB, U1SB09301, U1CW09301, U1CW09302, U1CW09302DUP, U1CW09302MS, U1CW09302MSD, U1CW09401, U1CW09501	NO CONTAMINATION FOUND			
	U1CW00099EB	U1CW09901, U1SB09901DUP, U1SB09901MS, U1SB09901MSD, U1CW09601, U1CW09701, U1CW09801	NO CONTAMINATION FOUND			
	U1SB00101EB	U1CW09901, U1SB09901DUP, U1SB09901MS, U1SB09901MSD, U1CW09601, U1CW09701, U1CW09801	NO CONTAMINATION FOUND			

TABLE 4 - 3

**GC/MS VOLATILES DETECTED IN FIELD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	FB CONC.	UNITS	VALIDATION QUALIFIER
U1115	U1CW00009FB	U1SB09301, U1CW09301, U1CW09801, U1CW09301MS, U1CW09301MSD, U1CW09302, U1CW09302DUP, U1CW09302MS, U1CW09302MSD, U1CW09401, U1CW09501 U1CW09901, U1SB09901DUP, U1SB09901MS, U1SB09901MSD, U1CW09601, U1CW09701,	NO CONTAMINATION FOUND			

TABLE 4 - 4

**GC/MS VOLATILES DETECTED IN METHOD BLANKS
NAS JACKSONVILLE RI/FS FOR OU-1**

SDG NUMBER	BLANK ID	RELATED ENVIRONMENTAL SAMPLES	CONTAMINANT	MB CONC.	UNITS	VALIDATION QUALIFIER
U1115	VBLK8V	U1CW00009FB, U1CW00062TB, U1CW00097EB, U1CW09302, U1CW09302DUP, U1SB00098EB, U1CW09302MS, U1CW09302MSD	NO CONTAMINATION FOUND			
	VBLK8W	U1CW09301, U1CW09302DDL, U1CW09302DL, U1CW09401, U1CW09501, U1CW09301MS, U1CW09301MSD	NO CONTAMINATION FOUND			
	VBLK8X	U1CW00063TB, U1CW00099EB, U1CW09601, U1CW09701, U1CW09801, U1SB00101EB	NO CONTAMINATION FOUND			
	VBLK8Y	U1SB09901, U1SB09901DUP	ACETONE	28	ug/Kg	U
		U1SB09301, U1SB09901MS, U1SB09901MSD	ACETONE	28	ug/Kg	

acetone trip blank contamination. Based on the assessment of the trip blanks for representativeness, the analytical data was acceptable for each SDG.

4.2 Equipment Rinseate Blanks

The equipment rinseate blank was collected by rinsing a piece of sampling equipment with organic free deionized water. A sample of this water was collected and placed in sample containers similar to those used for the environmental samples. Volatile organic compounds were not detected in the rinseate blank samples (Table 4-2). Based on assessment of equipment rinseate blanks for representativeness, the analytical data was acceptable for each SDG.

4.3 Field Blanks

The field blank is a sample of deionized water used during equipment decontamination. The field blank was opened to ambient field conditions. Volatile compounds were not detected in the field blank samples (Table 4-3). Based on assessment of field blanks for representativeness, the analytical data was acceptable for each SDG.

4.4 Method Blanks

The method blanks are samples of deionized water that were prepared by the laboratory at the time of analysis. Method blanks undergo the same analytical process as the corresponding environmental samples and associated field blanks. The purpose of the method blank is to assess the potential for target analytes to "contaminate" the sample during analysis.

The one (1) volatile organic compound which was detected in one (1) of the method blanks is listed below:

- GC/MS Volatiles (Table 4-4)
acetone

The acetone is a common laboratory contaminant, and its presence may be attributed to laboratory contamination. Some of the field sample analytical results required qualification due to acetone method blank contamination. Based on the assessment of the method blanks for representativeness, the analytical data was acceptable for each SDG.

4.5 Holding Times

Holding times requirements are utilized in an effort to minimize the degradation or concentration of constituents in a particular matrix over time. The stability of the constituents is determined to the best extent and then a reasonable time limit is imposed under which the samples must be extracted or prepared and then analyzed. The holding times regulations assume that the samples have been properly preserved according to the guidelines, either at the laboratory or in the field. Analytical results from samples with holding time violations are qualified as estimated, J/UJ, or rejected, R, due to the potential for compromising the integrity of the samples, and based on the extent of the holding time violation. All holding times requirements were met.

5.0 COMPARABILITY

Comparability is a qualitative measure designed to express the confidence with which one data set may be compared to another. The analytical samples were collected and transported to the chemical analytical laboratory in accordance with standard procedures and were analyzed in conformance with acceptable USEPA procedures (Refer to Table 5-1 below). The analytical data are reported in standard units (micrograms per liter, micrograms per kilogram, etc.).

The methods used to collect the environmental samples and the methods used to analyze the samples should assure comparability of the analytical data.

TABLE 5-1
USEPA Procedures (CLP Methodology)

U.S. EPA Method	Description
CLP SOW OLM01.8	CLP TCL Volatile Organics without TICs

6.0 COMPLETENESS

Completeness is the quantitative measure of the amount of data obtained from a measurement process compared with the amount expected to be obtained under the conditions of measurement. The completeness goal for laboratory analysis for this project was 96 percent useable data. Unusable analytical data are those results reported by the laboratory but rejected during the data validation process. A summary of the completeness goal for NAS Jacksonville RI/FS for OU-1 is provided in Table 6-1. For more detailed completeness goal tables, please refer to Appendix C.

TABLE 6-1
COMPLETION GOAL (>96%)

	<u>QC</u>	<u>CW</u>	<u>SB</u>	<u>OVERALL</u>
VOA	100.0	100.0	100.0	100.0

MATRIX KEY

QC = QC Samples

CW = Cone Penetrometer Water Samples

SB = Soil Boring Samples

The analytical data met the 96 percent completeness goal for the SDG. The narrative following describes any extenuating factors involved in the data resolution.

Volatiles Dilutions Two (2) samples, U1CW09302 and U1CW09302DUP were analyzed at a dilution factor. The dilutions were required for the accurate quantitation of a target compound which was detected at concentrations above the linear range of the instrument in the undiluted analysis. The compound trichloroethene, which, in the undiluted analysis of sample U1CW09302, was reported with an E flag, was rejected and replaced with the D flagged results from the dilution analysis. All compounds in the dilution of U1CW09302DUP were rejected because of poor precision in the dilution analysis, when compared with the original analysis. Therefore, the trichloroethene result for sample U1CW09302 was qualified as estimated, J, because the concentration was above the linear range. These rejections do not constitute true rejections since viable results were obtained from the dilution analyses. Therefore, the "rejections" were not counted in the rejection tables and did not affect the completeness results.

Volatiles Calibrations Some sample data points were qualified for continuing calibration deficiencies. All results qualified for calibration % RSD and % D deficiencies (J/UJ) are considered to be useable. For the compounds in the volatile analysis that did not meet calibration criteria, all positive results are qualified as estimated (J) (%Ds >25%) and all non detect results are qualified as estimated (UJ) (>50% D <90%) due to calibration deficiencies.

7.0 PARCC SUMMARY

The purpose of evaluating the quality of the analytical data using the PARCC criteria was to address the qualification of the data in regards to evaluation of the presence, magnitude and characteristics of hazardous substances at NAS Jacksonville RI/FS for OU-1. Overall, the chemical analytical data are acceptable and exceeded the completion goal of 96 percent for all analytical fractions. Tables 7-1 through 7-3 provides a tabulation of the assessment of PARCC criteria for each SDG for cone penetrometer samples, soil boring samples, and quality control samples, respectively.

7.1 Cone Penetrometer Samples

No sample data points were rejected. The completion goal was met.

7.2 Soil Boring Samples

No sample data points were rejected. The completion goal was met.

7.3 Quality Control Samples

No sample data points were rejected. The completion goal was met.

**TABLE 7-1
 PARCC CRITERIA SUMMARY
 CONE PENETROMETER SAMPLES
 NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
U1115	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

**TABLE 7-2
PARCC CRITERIA SUMMARY
SOIL BORING SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
U1115	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

**TABLE 7-3
PARCC CRITERIA SUMMARY
QC SAMPLES
NAS JACKSONVILLE RI/FS FOR OU-1**

SDGs	PRECISION	ACCURACY	REPRESENT- ATIVENESS	COMPARABILITY	COMPLETENESS
U1115	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE

REFERENCES

ABB Environmental Services, Inc. 1991. Navy Installation Restoration Program Plan, Naval Air Station, Jacksonville, Florida. Volume 5: Remedial Investigation/Feasibility Study Work Plan for OU1, Oil and Solvents Disposal Pits Area. Prepared for SOUTHNAVFACENGCOM. September. Updated 1993.

Geraghty & Miller, Inc., 1991b. Navy Installation Restoration Program Plan, Naval Air Station, Jacksonville, Florida. Volume 1: Organization and Planning, Prepared SOUTHNAVFACENGCOM. September.

Geraghty & Miller, Inc., 1991b. Navy Installation Restoration Program Plan, Naval Air Station, Jacksonville, Florida. Volume 4: Basic Site Work Plan. Prepared SOUTHNAVFACENGCOM. September. Updated 1992.

Naval Energy and Environmental Support Activity (NEESA), 1988., Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program, Naval Energy and Environmental Support, 20.2-047B, June 1988.

USEPA, 1990., National Functional Guidelines for Organic Data Review, United States Environmental Protection Agency, June 1991.

USEPA, 1990a., Guidance for Data Usability in Risk Assessment, United States Environmental Protection Agency, EPA 540 G-90/008, October 1990.

USEPA, 1990b., Statement of Work for Organic Analysis, Multi-Media, Multi-Concentration, United States Environmental Protection Agency Contracts Laboratory Program, Document No. OLM01.8, June. June 1991.

APPENDIX A

CALIBRATION SUMMARY

TABLE A - 1

INITIAL AND CONTINUING CALIBRATION
VOLATILE ORGANIC COMPOUNDS
NAS JACKSONVILLE RI/FS FOR OU-1

<i>ICAL = INITIAL CALIBRATION = %RSD</i> <i>CCAL = CONTINUING CALIBRATION = %D</i>	SDG U1115		
	ICAL1	CCAL1	CCAL2
DATE	032194	042194	042294
INSTRUMENT ID	FINZ	FINZ	FINZ
CALIBRATION CRITERIA	RSD	%D	%D
CHLOROMETHANE	32.6		
2-BUTANONE			25.6
ACETONE	30.0	-66.2	-41.0

SDGS, STANDARDS, AND ASSOCIATED SAMPLES

SDG U1115

ICAL1: NONE

CCAL1: U1CW00063TB, U1CW00099EB, U1CW00101EB, U1CW09601, U1CW09701,
U1CW09801

CCAL2: U1SB09301, U1SB09901, U1SB09901MS, U1SB09901MSD, U1SB09901DUP

APPENDIX B

REJECTED DATA SUMMARY

TABLE B - 1
GC/MS VOLATILES - REJECTED DATA
NAS JACKSONVILLE RI/FS FOR OU-1

SDG	# SAMPLES/MATRIX				# OF COMPOUNDS REJECTED PER MATRIX		
					QC	CW	SB
	QC	CW	SB				
U1115	9	7	2		0	0	0
GRAND TOTAL	9	7	2		0	0	0
COMPLETION GOAL (>96%)					100.0%	100.0%	100.0%

OVERALL COMPLETENESS 100.0%

MATRIX KEY

QC = QC SAMPLES
 CW = CONE PENETROMETER SAMPLES
 SB = SOIL BORING SAMPLES

* 33 TARGET COMPOUNDS PER SAMPLE

APPENDIX P-4

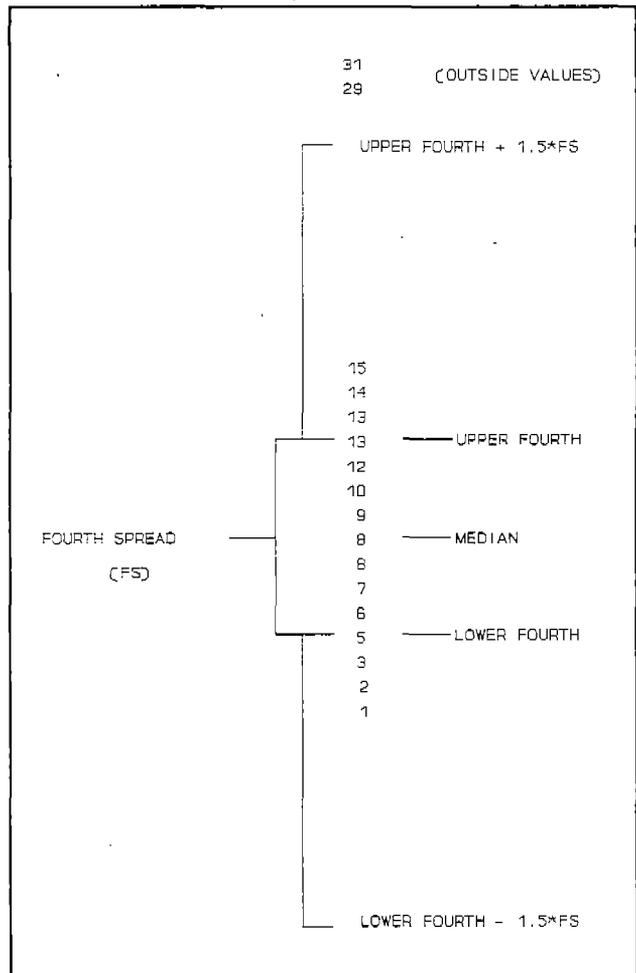
BACKGROUND STATISTICAL EVALUATION

APPENDIX P-4

DETERMINATION OF BACKGROUND USING VARIOUS STATISTICAL METHODS AND COMPARISON OF FIELD SAMPLE AND BACKGROUND POPULATIONS

One of the steps in data analysis was the determination of a background for comparison purposes. Initially, for each media (ground water, surface water, surface soils, subsurface soils, and sediments), a group of sample locations had been identified as probably representing background conditions. These locations were sampled and analyzed. The results of these analyses were then examined to determine if they represented consistent populations which would define background conditions.

This examination was performed by identifying points in need of closer scrutiny through the use of a non-parametric outside value identification method described in *Understanding Robust and Exploratory Data Analysis*, D. C. Hoaglin, F. Mosteller, and J.W. Tukey, John Wiley and Sons, Inc. 1983. This method is based on the definition of a "fourth spread" which is the numerical difference between the lower fourth and upper fourth. (For all practical purposes, the lower fourth and upper fourth correspond to the twenty-fifth and seventy-fifth percentiles which are the values that are greater than or equal to twenty-five percent of the values and greater than or equal to seventy-five percent of the values, respectively.) By using the distance between fourths as an indicator to the "natural spread" of the values, extreme values at either end of the distribution have no effect on the measurement of the spread of the population around its central value.



According to Hoaglin et al., any value that lies more than 1.5 times the fourth spread above the upper fourth value or 1.5 times the fourth spread below the lower fourth is considered an "outside value" deserving further consideration (See fig 1). These values are not true statistical outliers, but are distributed far enough from the sample's central value to be questioned.

Samples were grouped by sample media and sample type (investigation sample or background sample). For this analysis, values that are qualified as being below detection limit (BDL) are ranked according to the detection limit value. Outside values were then identified for each sample media/sample type combination.

Analytical value that were rejected by the laboratory were excluded from the procedure, but all other, non-rejected values were included. Duplicate samples and re-analyses were included as separate and distinct entities.

Background:

Outside values locations counts - GROUND WATER - Background

location	low values	high values
JXMW00601	0.0000	1.0000
JXMW00701	1.0000	2.0000
JXMW00801	5.0000	0.0000
JXMW00901	14.0000	1.0000
JXMW01001	2.0000	1.0000
JXMW01101	2.0000	4.0000
JXMW03501	1.0000	32.0000
JXMW03601	1.0000	1.0000
JXMW03701	1.0000	1.0000
JXMW03801	2.0000	1.0000
JXMW03901	0.0000	14.0000
JXMW04001	1.0000	2.0000
JXMW04101	1.0000	13.0000
JXMW04201	0.0000	4.0000
JXMW04301	1.0000	3.0000
JXMW04401	1.0000	2.0000
JXMW04501	1.0000	19.0000
JXMW04501DUP	1.0000	17.0000
JXMW04601	0.0000	1.0000
JXMW04701	0.0000	1.0000
JXMW04801	0.0000	1.0000
JXMW04901	1.0000	11.0000
JXMW05001	1.0000	0.0000
JXMW05101	0.0000	30.0000
JXMW05201	1.0000	4.0000
JXMW05301	0.0000	6.0000
JXMW05401	0.0000	9.0000
JXMW05401DUP	0.0000	4.0000
JXMW05501	1.0000	4.0000
JXMW05601	1.0000	3.0000
JXMW05601DUP	0.0000	2.0000
JXMW05701	0.0000	19.0000
JXMW05901	0.0000	2.0000
JXMW06001	0.0000	16.0000
JXMW06201	12.0000	1.0000
JXMW06301	0.0000	10.0000
JXMW06401	1.0000	1.0000
JXMW06501	0.0000	15.0000
JXMW06601	0.0000	5.0000
JXMW06801	4.0000	2.0000
JXMW06901	1.0000	2.0000
JXMW06901DUP	2.0000	0.0000
JXMW07001	13.0000	2.0000
JXMW07101	11.0000	1.0000

JXMW07101DUP	10.0000	2.0000
JXMW07201	10.0000	3.0000
JXMW07301	1.0000	18.0000
JXMW07501	0.0000	13.0000
JXMW07601	0.0000	39.0000
JXMW07701	13.0000	5.0000
JXMW08001	1.0000	6.0000
JXMW08101	0.0000	1.0000
JXMW08201	14.0000	0.0000
JXMW08301	14.0000	0.0000

Outside values locations counts - SURFACE WATER - background

location	low values	high values
JXSW05801	7.0000	21.0000
JXSW05901	1.0000	7.0000
JXSW06101	3.0000	1.0000

Outside values locations counts - SEDIMENTS - Background

location	low values	high values
JXSD05801	2.0000	2.0000
JXSD05901	6.0000	6.0000
JXSD06001	0.0000	2.0000
JXSD06101	0.0000	45.0000
JXSD06201	2.0000	1.0000

Outside values locations counts - SOILS - Background

location	low values	high values
DWSB03601	0.0000	29.0000
DWSB03601DUP	8.0000	30.0000
DWSB03602	2.0000	11.0000
JXSB03801	3.0000	92.0000
JXSB03802	7.0000	0.0000
JXSB04001	0.0000	1.0000
JXSB04201	4.0000	0.0000
JXSB04202	0.0000	1.0000
JXSB04601	2.0000	25.0000
JXSB04602	0.0000	5.0000
JXSB05001	5.0000	29.0000
JXSB05001DUP	3.0000	28.0000
JXSB05002	5.0000	0.0000
JXSB05601	11.0000	1.0000
JXSB05701	2.0000	3.0000
JXSB06401	1.0000	0.0000
JXSB06402	0.0000	1.0000
JXSB06403	2.0000	2.0000
JXSB06501	2.0000	3.0000
JXSB06801	1.0000	1.0000
JXSB06801DUP	1.0000	1.0000
JXSB07401	9.0000	4.0000
JXSB07402	6.0000	7.0000

JXSB08301	20.0000	5.0000
JXSB08302	0.0000	24.0000

Field Samples

Outside values locations counts - AIR SAMPLES

location	low values	high values
U1AR00101	0.0000	4.0000
U1AR00101DUP	0.0000	2.0000
U1AR00102	0.0000	2.0000
U1AR00102DUP	0.0000	1.0000
U1AR00103	0.0000	1.0000
U1AR00201	0.0000	2.0000
U1AR00401	0.0000	1.0000
U1AR00402	0.0000	5.0000
U1AR00403	0.0000	2.0000
U1AR00404	0.0000	4.0000

Outside values locations counts - GROUND WATER - Samples

location	low values	high values
DSMW-004	0.0000	1.0000
DSMW-018	0.0000	3.0000
DSMW-018_DL	0.0000	13.0000
DSMW-025	0.0000	2.0000
DSMW-12	1.0000	9.0000
DSMW-12SOL	0.0000	1.0000
DSMW-14	1.0000	3.0000
DSMW-14SOL	0.0000	1.0000
DSMW-15	0.0000	1.0000
DSMW-15SOL	0.0000	1.0000
DSMW-19	0.0000	32.0000
DSMW-2	0.0000	1.0000
DSMW-22	1.0000	3.0000
DSMW-28	0.0000	4.0000
DSMW-28SOL	0.0000	1.0000
DSMW-31	0.0000	40.0000
DSMW-31SOL	0.0000	2.0000
DSMW-34	1.0000	16.0000
DSMW-6	1.0000	0.0000
HMW-001	2.0000	1.0000
HMW-004	2.0000	0.0000
HMW-005SOL	0.0000	1.0000
JXCW00401	0.0000	1.0000
JXCW00801	0.0000	1.0000
JXCW01402	0.0000	1.0000
JXCW01702	0.0000	2.0000
JXCW01702DUP	0.0000	1.0000
JXCW01801	0.0000	2.0000
JXCW01802	0.0000	3.0000
JXCW02003	0.0000	1.0000

JXCW02102	0.0000	2.0000
JXCW02203	0.0000	1.0000
JXCW02303	0.0000	2.0000
JXCW02403	0.0000	3.0000
JXCW02403RP	0.0000	3.0000
JXCW02503	0.0000	5.0000
JXCW02601	0.0000	1.0000
JXCW02602	0.0000	3.0000
JXCW02702	0.0000	1.0000
JXCW02802	0.0000	1.0000
JXCW03302	0.0000	2.0000
JXCW03303	0.0000	3.0000
JXCW03402	0.0000	2.0000
JXCW04402	0.0000	1.0000
JXCW05101	1.0000	1.0000
JXCW05302	0.0000	4.0000
JXCW05402	0.0000	3.0000
JXCW05603	0.0000	3.0000
JXCW05703	0.0000	2.0000
JXCW05802	0.0000	1.0000
JXCW06202	0.0000	1.0000
JXCW06801	0.0000	1.0000
JXCW06901	0.0000	1.0000
JXCW07401	0.0000	1.0000
JXCW07701	0.0000	4.0000
JXCW07801	0.0000	4.0000
JXCW07801DUP	0.0000	23.0000
JXCW08201	0.0000	1.0000
JXCW08301	0.0000	1.0000
JXCW08501	0.0000	1.0000
JXCW09001	0.0000	4.0000
JXCW09001DL	0.0000	31.0000
JXMW06101	0.0000	9.0000
JXMW06701	1.0000	5.0000
JXMW07901	0.0000	2.0000
RP-002	0.0000	13.0000
RP-002SOL	0.0000	2.0000
RP001	1.0000	8.0000
RP003	1.0000	42.0000
RP003SOL	0.0000	8.0000
RP004	1.0000	16.0000
SSMW-003	1.0000	9.0000
SSMW-003SOL	0.0000	4.0000
SSMW-017	0.0000	5.0000
SSMW-024	0.0000	11.0000
SSMW-1	1.0000	11.0000
SSMW-10	0.0000	8.0000
SSMW-10SOL	0.0000	5.0000
SSMW-11	3.0000	6.0000
SSMW-11SOL	0.0000	1.0000
SSMW-16	0.0000	9.0000
SSMW-20	1.0000	18.0000
SSMW-20SOL	0.0000	2.0000
SSMW-21	0.0000	9.0000

SSMW-23	0.0000	8.0000
SSMW-26	0.0000	5.0000
SSMW-27	1.0000	12.0000
SSMW-27SOL	0.0000	3.0000
SSMW-30	0.0000	12.0000
SSMW-30SOL	0.0000	4.0000
SSMW-32	0.0000	15.0000
SSMW-32SOL	0.0000	2.0000
SSMW-33	2.0000	18.0000
SSMW-33SOL	0.0000	4.0000
SSMW-5	0.0000	8.0000
SSMW-5SOL	0.0000	5.0000
SSMW-7	0.0000	13.0000
SW002	0.0000	3.0000
SW003	0.0000	1.0000
SW005	0.0000	3.0000
SW006	0.0000	1.0000
SW008	0.0000	1.0000
SW009	0.0000	1.0000
SW011	2.0000	3.0000
SW012	0.0000	4.0000
SW013	0.0000	2.0000
SW014	2.0000	0.0000
SW015	2.0000	1.0000
SW016	1.0000	2.0000
SW017	1.0000	1.0000
SW018	1.0000	0.0000
SW019	1.0000	0.0000
SW020	1.0000	1.0000
SW021	1.0000	0.0000
SW022	1.0000	0.0000
SW023	1.0000	0.0000
SW025	1.0000	0.0000
SW026	2.0000	1.0000
SW027	1.0000	0.0000
SW028	0.0000	1.0000
SW029	0.0000	1.0000
SW030	0.0000	1.0000
SW031	0.0000	1.0000
SW032	0.0000	1.0000
SW033	0.0000	1.0000
SWRP001	2.0000	2.0000
SWRP003	1.0000	0.0000
SWRP004	1.0000	0.0000
TANKER-1	10.0000	16.0000
U1CW09301	1.0000	1.0000
U1CW09302	0.0000	5.0000
U1CW09302DDL	0.0000	33.0000
U1CW09302DL	0.0000	33.0000
U1CW09302DUP	1.0000	5.0000
U1CW09401	1.0000	5.0000
U1CW09501	0.0000	32.0000
U1CW09601	0.0000	1.0000
U1CW09701	1.0000	21.0000

U1CW09801	1.0000	1.0000
U1CW10001	0.0000	33.0000
U1CW10201	0.0000	33.0000
U1CW10301	0.0000	33.0000
U1CW10401	0.0000	1.0000
U1CW10402	0.0000	2.0000
U1CW10402DL	0.0000	21.0000
U1CW10501	0.0000	5.0000
U1CW10502	0.0000	5.0000
U1CW10601	0.0000	1.0000
U1CW10601DUP	0.0000	1.0000
U1MW00102	0.0000	2.0000
U1MW00202	0.0000	1.0000
U1MW00702	1.0000	1.0000
U1MW01002	0.0000	1.0000
U1MW01202	0.0000	2.0000
U1MW01402	9.0000	1.0000
U1MW01403DUP	0.0000	1.0000
U1MW01502	9.0000	1.0000
U1MW01602	10.0000	0.0000
U1MW01702	10.0000	0.0000
U1MW01802	0.0000	3.0000
U1MW01902	0.0000	5.0000
U1MW01902DL	0.0000	33.0000
U1MW02102	10.0000	0.0000
U1MW02602	10.0000	0.0000
U1MW02702	10.0000	0.0000
U1MW02802	0.0000	3.0000
U1MW02802DUP	1.0000	2.0000
U1MW03002	10.0000	0.0000
U1MW03102	10.0000	3.0000
U1MW03102DUP	10.0000	1.0000
U1MW03202	10.0000	0.0000
U1MW03302	0.0000	1.0000
U1MW03402	0.0000	4.0000
U1MW06702	1.0000	2.0000
U1MW08402	0.0000	1.0000
U1MW08501	0.0000	5.0000
U1MW08601	0.0000	2.0000
U1MW08701	0.0000	1.0000
U1MW08801	0.0000	2.0000
U1MW08801DUP	1.0000	2.0000
U1MW08901	0.0000	48.0000
U1MW08902	0.0000	7.0000
U1MW08902DL	0.0000	33.0000
U1MW09101	0.0000	6.0000
U1MW09201	0.0000	1.0000
U1MW09301	0.0000	6.0000
U1MW09401	0.0000	3.0000
U1MW09401DL	0.0000	33.0000
U1MW09402	0.0000	3.0000
U1MW09402DL	0.0000	33.0000
U1MW09501	1.0000	19.0000
U1MW09601	0.0000	5.0000

U1MW09701	0.0000	6.0000
U1MW09702	0.0000	3.0000
U1MW09702DUP	0.0000	3.0000
U1MW09801	0.0000	1.0000
U1MW09901	0.0000	2.0000
U1MW10001	0.0000	4.0000
U1MW10002	1.0000	2.0000
U1MW10101	1.0000	12.0000
U1MW10102	0.0000	2.0000
U1MW10102DL	0.0000	22.0000
U1MW10201	0.0000	3.0000
U1MW10202	0.0000	1.0000
U1MW10301	0.0000	10.0000
U1MW10501	0.0000	8.0000
U1MW10701	0.0000	1.0000
U1MW10801DUP	0.0000	1.0000
U1MW10901	0.0000	12.0000
U1MW11001	0.0000	1.0000
U1MW11101	0.0000	11.0000
U1MW11301	0.0000	20.0000
U1MW11302	1.0000	1.0000
U1MW11401	0.0000	1.0000
U1MW11402	0.0000	1.0000
U1MW11402DUP	0.0000	1.0000
U1MW11501	0.0000	5.0000

Outside values locations counts - SURFACE WATER - Samples

location	low values	high values
JXSW03401	1.0000	5.0000
JXSW03501	1.0000	12.0000
JXSW03601	0.0000	8.0000
JXSW03601DUP	3.0000	6.0000
JXSW03701	0.0000	6.0000
JXSW03801	0.0000	2.0000
JXSW04001	0.0000	3.0000
JXSW04101	0.0000	2.0000
JXSW04201	0.0000	3.0000
JXSW04301DUP	0.0000	1.0000
JXSW04501	0.0000	11.0000
JXSW04601	1.0000	6.0000
JXSW04701	0.0000	10.0000
JXSW05001	2.0000	5.0000
JXSW05101	8.0000	22.0000
JXSW05102	12.0000	9.0000
JXSW05102DUP	6.0000	4.0000
JXSW05401	1.0000	3.0000
JXSW05401DUP	0.0000	4.0000
JXSW05501	3.0000	6.0000
JXSW05601	1.0000	22.0000
JXSW05602	13.0000	4.0000
JXSW05701	1.0000	3.0000
JXSW06301	13.0000	2.0000

Outside values locations counts - SEDIMENTS - Samples

location	low values	high values
JXSD03401	1.0000	12.0000
JXSD03501	0.0000	2.0000
JXSD03601	0.0000	4.0000
JXSD03601DUP	0.0000	1.0000
JXSD03801	1.0000	1.0000
JXSD03901	0.0000	87.0000
JXSD04001	0.0000	3.0000
JXSD04101	1.0000	1.0000
JXSD04201	0.0000	5.0000
JXSD04301	0.0000	122.0000
JXSD04301DUP	0.0000	123.0000
JXSD04801	0.0000	2.0000
JXSD04901	0.0000	3.0000
JXSD05101	0.0000	34.0000
JXSD05401	0.0000	30.0000
JXSD05401DUP	0.0000	31.0000
JXSD05601	0.0000	48.0000
JXSD05701	0.0000	9.0000
JXSD06401	0.0000	1.0000
JXSD06501	0.0000	1.0000
SD001	0.0000	14.0000
SD002	0.0000	6.0000
SD003	0.0000	3.0000
SD004	0.0000	2.0000
SD004R	0.0000	10.0000
SD005	0.0000	6.0000
SD005DL	0.0000	1.0000
SD006	0.0000	2.0000
SD006DL	0.0000	11.0000
SD007	0.0000	13.0000
SD008	0.0000	2.0000
SD009	0.0000	1.0000
SD011	0.0000	4.0000
SD012	0.0000	4.0000
SD012DL	0.0000	3.0000
SD013	0.0000	1.0000
SD014	1.0000	2.0000
SD015	0.0000	1.0000
SD016	0.0000	1.0000
SD017	0.0000	27.0000
SD017DL	0.0000	1.0000
SD021	0.0000	1.0000
SD023	0.0000	7.0000
SD024	0.0000	3.0000
SD025	0.0000	1.0000
SD026	0.0000	15.0000
SD027	0.0000	3.0000
SD032	0.0000	2.0000
SD033	0.0000	1.0000
SDRP001	0.0000	1.0000
SDRP002	0.0000	2.0000

SDRP002R	0.0000	13.0000
SDRP003	0.0000	14.0000

Outside values locations counts - SOILS - Samples

location	low values	high values
JXD06501DUP	1.0000	0.0000
RP040	0.0000	131.0000
RP068	2.0000	13.0000
RP068_R	0.0000	1.0000
SL01	0.0000	83.0000
SL013 2-4	0.0000	26.0000
SL014 0-3	0.0000	27.0000
SL02	0.0000	104.0000
SL020 0-3	0.0000	2.0000
SL021	0.0000	12.0000
SL022 2-4	0.0000	95.0000
SL024 0-3	0.0000	27.0000
SL024 2-4	1.0000	1.0000
SL025 0-3	0.0000	2.0000
SL02A	0.0000	1.0000
SL03	0.0000	99.0000
SL032 0-3	0.0000	25.0000
SL032 2-4	0.0000	29.0000
SL034 9-11	1.0000	10.0000
SL035 9-11	1.0000	8.0000
SL039 10-12	1.0000	35.0000
SL04	0.0000	97.0000
SL040	0.0000	118.0000
SL040 9-11	1.0000	42.0000
SL040A	0.0000	2.0000
SL041 3-4	2.0000	14.0000
SL043 5-7	0.0000	25.0000
SL044 7-9	1.0000	134.0000
SL044 7-9DL	0.0000	98.0000
SL047 3-5	1.0000	64.0000
SL047 3-5DL	0.0000	35.0000
SL048 0-3	0.0000	27.0000
SL048 1-2	0.0000	26.0000
SL05	0.0000	98.0000
SL050 2-4	2.0000	1.0000
SL052 1-2	0.0000	7.0000
SL053 4-6	2.0000	0.0000
SL056	3.0000	2.0000
SL057	3.0000	7.0000
SL057_R	0.0000	1.0000
SL058	3.0000	1.0000
SL059	3.0000	2.0000
SL059_R	0.0000	1.0000
SL060	2.0000	1.0000
SL061	2.0000	3.0000
SL061_R	0.0000	1.0000
SL062	2.0000	2.0000
SL065 0-3	0.0000	1.0000

SL066 0-3	0.0000	26.0000
SL066 2-4	2.0000	0.0000
SL067 0-3	1.0000	30.0000
SL068	2.0000	14.0000
SL068_R	0.0000	1.0000
SL069 0-3	0.0000	28.0000
SL07	0.0000	89.0000
SL070	2.0000	0.0000
SL071 0-3	0.0000	1.0000
SL072 0-3	0.0000	6.0000
SL072 5-7	0.0000	7.0000
SL073	2.0000	0.0000
SL073 0-3	0.0000	1.0000
SL073 4-6	2.0000	3.0000
SL074	2.0000	0.0000
SL076 0-3	0.0000	1.0000
SL077 0-3	1.0000	0.0000
SL077 4-5	2.0000	0.0000
SL079 4-6	2.0000	0.0000
SL081 0-3	0.0000	1.0000
SL081 3-5	1.0000	6.0000
SL082 0-3	1.0000	29.0000
SL082 3-5	0.0000	35.0000
SL082 3-5DL	0.0000	35.0000
SL083 0-3	1.0000	3.0000
SL083 5-7	1.0000	35.0000
SL084 0-3	0.0000	1.0000
SL086 0-3	0.0000	1.0000
SL087 0-3	1.0000	13.0000
SL088 0-3	0.0000	14.0000
SL089 0-3	0.0000	1.0000
SL089 0-3RE	1.0000	0.0000
SL090 0-3	1.0000	1.0000
SL092 0-3	0.0000	2.0000
SL093 0-3	0.0000	4.0000
SL095 0-3	1.0000	1.0000
SL096 0-3	1.0000	0.0000
SL096 2-4	1.0000	3.0000
SL097 1-3	2.0000	1.0000
SL097 1-3A	0.0000	96.0000
SL097 7-9	2.0000	2.0000
SL098 7-9	2.0000	2.0000
SL099 5-7	1.0000	4.0000
SL100 4-6	1.0000	1.0000
SL101	0.0000	27.0000
SL101 0-3	0.0000	24.0000
SL102	0.0000	27.0000
SL102 0-3	0.0000	1.0000
SL120 0-3	0.0000	26.0000
SL13B	0.0000	1.0000
SL14B	0.0000	60.0000
SL17A	0.0000	2.0000
SL17B	0.0000	47.0000
SL18A	0.0000	1.0000

SL18B	0.0000	45.0000
SL19A	0.0000	1.0000
SL19B	0.0000	1.0000
SL20A	0.0000	4.0000
SL22A	0.0000	1.0000
SL22B	0.0000	1.0000
SL23B	0.0000	1.0000
SL24A	0.0000	1.0000
SL25A	0.0000	60.0000
SL26B	0.0000	1.0000
SL27001 0-3	1.0000	0.0000
SL27002 0-3	0.0000	4.0000
SL27003 0-3	0.0000	31.0000
SL27003 2-4	2.0000	0.0000
SL27004 0-3	1.0000	20.0000
SL27004 2-4	2.0000	0.0000
SL27005 0-3	0.0000	26.0000
SL27005 2-4	2.0000	0.0000
SL27006 0-3	0.0000	3.0000
SL27008 2-4	2.0000	0.0000
SL27009 0-3	0.0000	24.0000
SL27009 2-4	0.0000	21.0000
SL27010 0-3	0.0000	27.0000
SL27010 2-4	2.0000	0.0000
SL27011 0-3	1.0000	1.0000
SL27011 2-4	2.0000	0.0000
SL27A	0.0000	1.0000
SL27B	0.0000	35.0000
SL27RP004 2-4	2.0000	1.0000
SL28B	0.0000	79.0000
SL31A	0.0000	47.0000
SL32A	0.0000	1.0000
SL32B	0.0000	1.0000
SL33A	0.0000	41.0000
SL33B	1.0000	2.0000
SL34A	0.0000	3.0000
SL34B	0.0000	4.0000
SL35A	0.0000	11.0000
SL35B	0.0000	53.0000
SL36B	0.0000	9.0000
SL37A	0.0000	4.0000
SL37B	0.0000	3.0000
SL38A	0.0000	6.0000
SL38B	0.0000	3.0000
SL39A	0.0000	3.0000
SL39B	0.0000	6.0000
SL40A	0.0000	6.0000
SL40B	0.0000	3.0000
SL41A	0.0000	2.0000
SL41B	0.0000	8.0000
SL42A	0.0000	2.0000
SL43A	0.0000	48.0000
SL43B	0.0000	38.0000
SL44A	0.0000	1.0000

SL44B	0.0000	1.0000
SL45A	0.0000	9.0000
SL45B	1.0000	10.0000
SL46A	0.0000	1.0000
SL46B	1.0000	2.0000
SL47A	0.0000	2.0000
SL47B	0.0000	41.0000
SL48B	1.0000	0.0000
SL49A	0.0000	1.0000
SL49B	0.0000	1.0000
SL50B	0.0000	1.0000
SL51B	0.0000	1.0000
SL52A	0.0000	2.0000
SL52B	0.0000	1.0000
SL53B	0.0000	5.0000
SLRP001	3.0000	2.0000
SLRP001 9-11	0.0000	37.0000
SLRP003 2-4	0.0000	6.0000
SLRP005 1-2	1.0000	25.0000
SLRP008 0-3	0.0000	27.0000
SLRP010 0-3	0.0000	24.0000
SLRP013 0-3	0.0000	26.0000
ULSB08801	2.0000	5.0000
ULSB09001	3.0000	4.0000
ULSB09301	0.0000	1.0000
ULSB09401	2.0000	4.0000
ULSB09601	0.0000	7.0000
ULSB09701	2.0000	4.0000
ULSB09801	2.0000	15.0000
ULSB09901	0.0000	1.0000
ULSB09901DUP	0.0000	1.0000
ULSB10001	2.0000	3.0000
ULSB10201	2.0000	10.0000
ULSB10401	2.0000	1.0000
ULSB10601	3.0000	4.0000
ULSB10601DUP	2.0000	4.0000
ULSB10801	2.0000	4.0000

The resulting outside values were then examined by a group of professionals to determine if there were any know factors that could explain their anomalous behavior. The general guideline followed was that samples would be retained unless a consensus opinion determined there was a valid reason to exclude it (such as site contamination discovered after sampling, recently discovered detrimental site history, or nearness to newly discovered contaminated sites).

The following background sample locations were excluded after the above described examination:

Ground water
 JXMW03501
 Soils

JXSB03801 - all parameters

DWSB3601 - exclude inorganics only

DWSB3601DUP - exclude inorganics only

JXSB05001 - exclude inorganics only

JXSB05001DUP - exclude inorganics only

JXSB08302 - exclude inorganics only

Sediments

JXSD06101

Surface Waters

JXSW05801

The final sampling locations included as background were:

GROUND WATER

JXMW03601

JXMW03701

JXMW03801

JXMW03901

JXMW04001

JXMW04101

JXMW04201

JXMW04301

JXMW04401

JXMW04501

JXMW04501DUP

JXMW04601

JXMW04701

JXMW04801

JXMW04901

JXMW05001

JXMW05101

JXMW05201

JXMW05301

JXMW05401

JXMW05401DUP

JXMW05501

JXMW05601

JXMW05601DUP

JXMW05701

JXMW05801

JXMW05901

JXMW06001

JXMW06201

JXMW06301

JXMW06401

JXMW06501

JXMW06601

JXMW06801

JXMW06901

JXMW06901DUP

JXMW07001

JXMW07101

JXMW07101DUP

JXMW07201
JXMW07301
JXMW07401
JXMW07501
JXMW07601
JXMW07701
JXMW08001
JXMW08101
JXMW08201
JXMW08301

SURFACE SOILS

JXSB04001
JXSB04201
JXSB04601
JXSB05601
JXSB05701
JXSB06401
JXSB06501
JXSB06801
JXSB06801DUP
JXSB07401
JXSB08301

SUBSOILS

DWSB03602
JXSB03802
JXSB04002
JXSB04202
JXSB04602
JXSB05002
JXSB05602
JXSB06402
JXSB06403
JXSB07402

SEDIMENTS

JXSD05801
JXSD05901
JXSD06001
JXSD06201

SURFACE WATERS

JXSW05901
JXSW06001
JXSW06101
JXSW06201

After this examination of outside values in the proposed background groups, a similar examination was made for actual field samples for each media. This examination was designed to better understand the field samples and identify any spots of anomalous concentrations. No samples were rejected from this examination.

Next, to gain a better understanding of underlying value distributions and systematic differences (such as varying detection limits) between the background and field samples, a comparison of populations from the investigation samples and background samples was performed for each media.

Samples were grouped by sample media and sample type (investigation sample or background sample). Analytical values that were rejected by the laboratory were excluded from the procedure, but all other, non-rejected values were included. For this analysis, values that are qualified as being below detection limit (BDL) are ranked according to the detection limit value. Duplicate samples and re-analyses were included as separate and distinct entities.

The population comparison was done using a Mann-Whitney U test procedure with an alpha of 0.95. The U test is a non-parametric analog of the Student's t test, in that it determines if two samples are likely to have been drawn from a single population (at some confidence level). However, the U test does not depend on the assumptions of the populations of the two samples being normally distributed and of equal variance that the t test imposes. These assumptions are often difficult to meet, especially in small environmental samples. The U test is 95% as efficient as the t test when these assumptions are strictly met, and much more efficient when these conditions are poorly met.

For each media, results from each analytical parameter for field samples and background samples were analyzed. The first determination was whether or not the two were likely derived from the same population. If this assumption was not rejected (with a 95% confidence level), then no further analysis was done for that analyte; there was no reason to believe there was any difference between the background and the field samples. If, on the other hand, this assumption was dismissed (they were not derived from the same population; they are different populations) then a determination of which sample group had a larger central value was made. This determination was based on the relative values of the median of each group. If more than fifty percent of both the background and field samples are BDL, then the test is essentially comparing detection limit populations. Cases of different detection limit populations are noted in the results below. Any analyte whose background median was larger than the field sample's median was dismissed as not being of further concern. Any analyte whose field sample median was larger than the background's median was considered to be potentially affected by site activities.

In addition to the Mann-Whitney U-test, we also constructed box and whisker plots to better depict the relationships of various parameters between the background and the field samples for each parameter for each media. For the purpose of these plots, all values below detection limits (BDLs) are taken to be equal to this detection limit.

Box and whisker plots are a simple, graphical summary of a parameter's values for a batch of data. They were first described by J.W. Tukey in his 1977 book Exploratory Data Analysis (Reading, Mass.:Addison-Wesley).

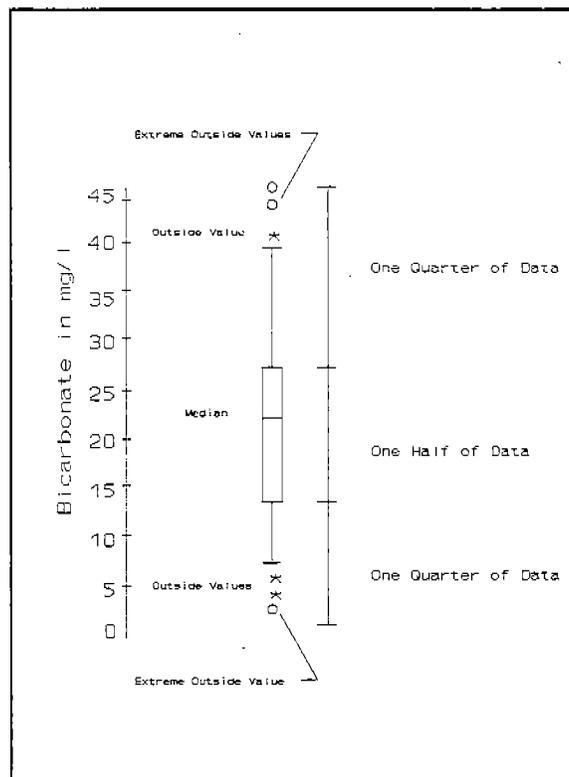
In the following figures, each figure represents a parameter for a single medium. There are two box and whisker plots per figure, one for background values and another for actual site samples.

To make a box and whisker plot, a set of data is sorted in ascending order. A few key values are determined from the sorted data set. Then these key values are plotted on a graph to form a figure called a box and whisker plot.

A box and whisker plot consists of a central box, two "whiskers", one on each side of the box, and possibly some circles and/or stars beyond the ends of the whiskers (see fig. ?).

The box is a graphical representation of the middle half of the values within a set of data. One quarter of the data falls above the upper edge of the box (the upper hinge) while one quarter of the data falls below the lower edge (the lower hinge). A horizontal line within the box represents the "middle" data value (called the median). Exactly one half of data falls above this line and one half falls below it.

To understand the whiskers above and below the box, an understanding of some key terminology is required. Almost all data sets consist of a number of different values -- not all have exactly the same value. This difference of values is the inherent variability or "spread" of the data set. This spread is unique for each data set. A good description of this spread is the difference in values of the upper and lower hinges (as described above). This difference is determined by subtracting the value for which exactly 25 percent of the data set is less from the value for which exactly 25 percent is greater. This value is called the "hinge spread".



Standard Box and Whisker Plot

For most data sets, almost all values for the set will be less than the upper hinge value plus 1.5 times the hinge spread and greater than the lower hinge value minus 1.5 times the hinge spread. These are called the inner fences because they contain all of the well-behaved data points for a data set. The whiskers extending above and below the box mark all the points that fall outside the box but between the inner fences.

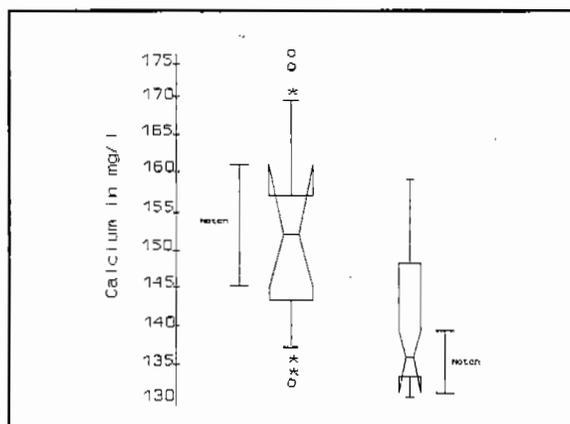
For many reasons, data points may fall outside inner fences. These points are not necessarily "bad" points and may actually belong to the data set. However, they are suspicious.

Points that fall outside the inner fences are further classified by the calculation of "outer fences". Outer fences are defined much as inner fences, except they are moved out to THREE times the hinge spread above and below the hinges. Points that fall outside the outer fences are prime suspects and deserve close scrutiny.

In a box and whisker plot, points that fall outside the outer fences are designated individually with small circles, while points that fall between the inner and outer fence are marked with stars.

There is a modified box and whisker plot that conveys even more information, especially when comparisons of data sets are undertaken (see fig ??). These are "notched" box plots. Notched box plots were first described by McGill, Tukey, and Larsen (1978) in "Variations of box plots", The American Statistician, 32, 12-16.

The "notched area" represents the interval within which the median can be placed with a 95 percent confidence. This means if the data set was repeatedly re-collected, 95 percent of the time the median of each new data set would fall within the notched area. (Notice that the confidence interval may extend past the hinge points, thereby giving a somewhat bizarre looking, but informative, figure.)



Notched Box and Whisker Plot

These notched box plots can be used to compare whether two or more data sets are different. This comparison is based on the assumption that two groups of data are not different if their medians are close enough together. The notched box plot graphically described what is "close enough" -- it is the same "notched area" just described. By putting two (or more) notched box plots in the same picture, they can be compared.

If two plots have NO overlap in their "notched areas" (as in this figure), then there is 95 percent confidence that they have different medians and actually represent different groups of data. However, if two figures have ANY overlap in their notched boxes, there is 95 percent confidence that they are NOT different groups of data.

Results of the Mann-Whitney U tests (illustrated by notched box and whisker plots, where appropriate) follow.

Sediments:

Parameters with different populations:

Background higher

(none)

Field sample higher

Aluminum

Barium

Chromium

Magnesium

Total Petroleum Hydrocarbons

Vanadium

Unequal detection limits:

Background higher

(none)

Field sample higher

Antimony

Cadmium

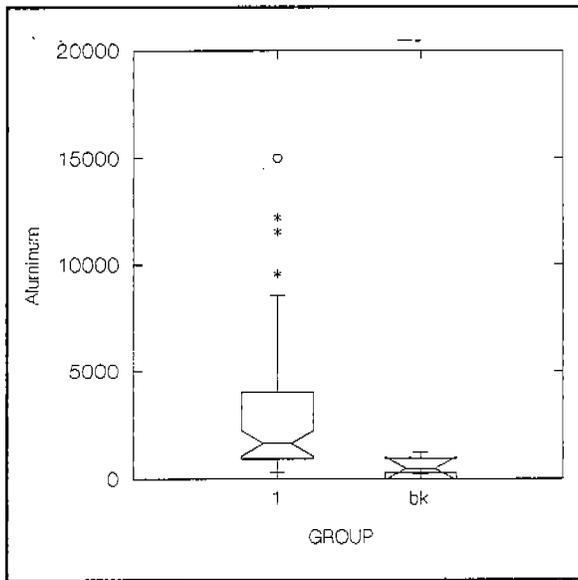
Cyanide

Potassium

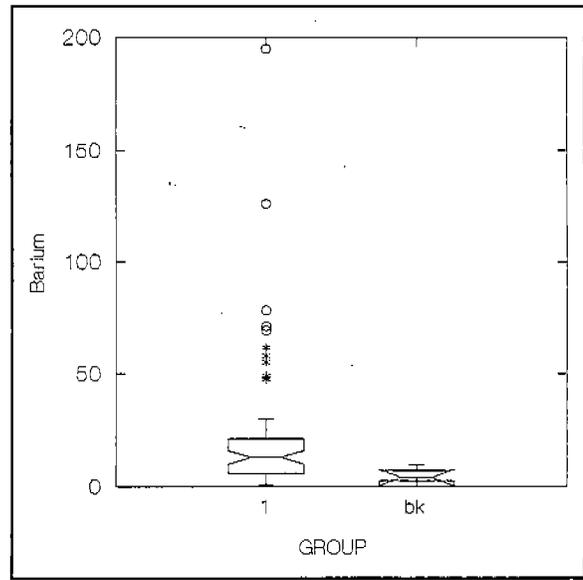
Selenium

Silver

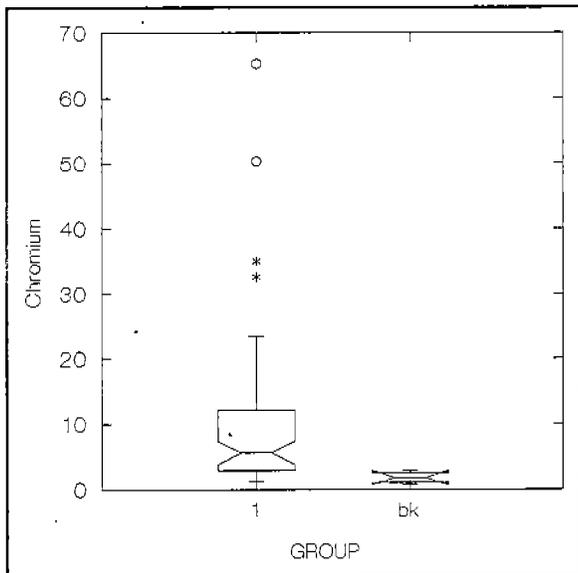
Thallium



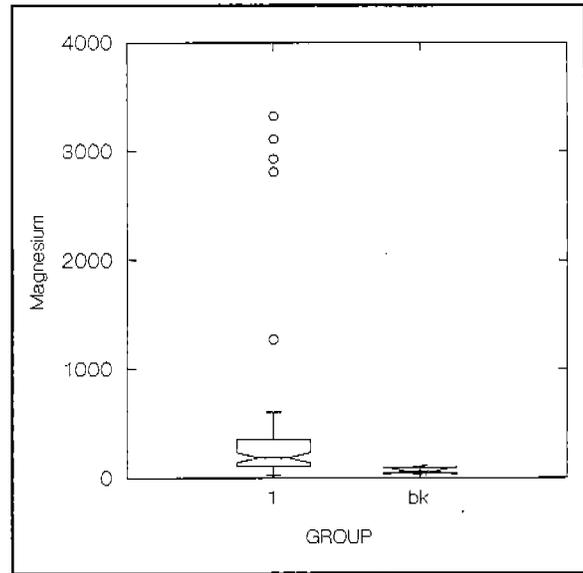
Aluminum



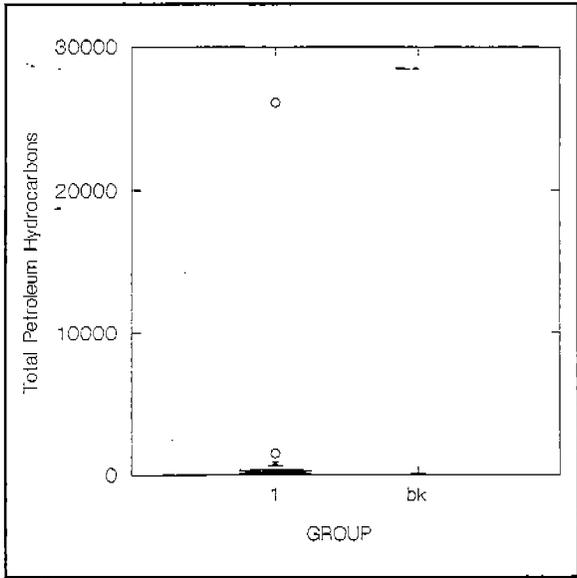
Barium



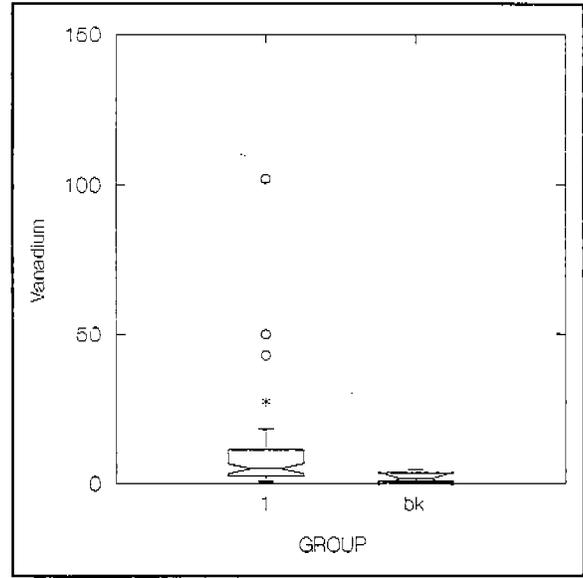
Chromium



Magnesium



Total Petroleum Hydrocarbons



Vanadium

Surface Soils:

Parameters with different populations:

Background higher

Actinium-228
Lead-212
Radium-228
Thallium-208

Field sample higher

Aluminum
Arsenic
Barium
Cadmium
Calcium
Chromium
Iron
Lead
Magnesium
Manganese
Nickel
Thorium-234
Vanadium
Zinc

Unequal detection limits:

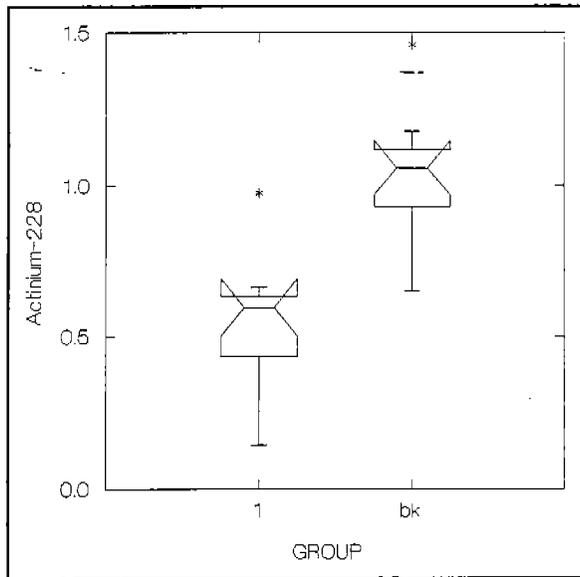
Background higher

1,2-Dichloroethene (Total)
Carbon Disulfide
Ethylbenzene
Methylene Chloride
Styrene
Toluene
Trichloroethene
Xylene (Total)

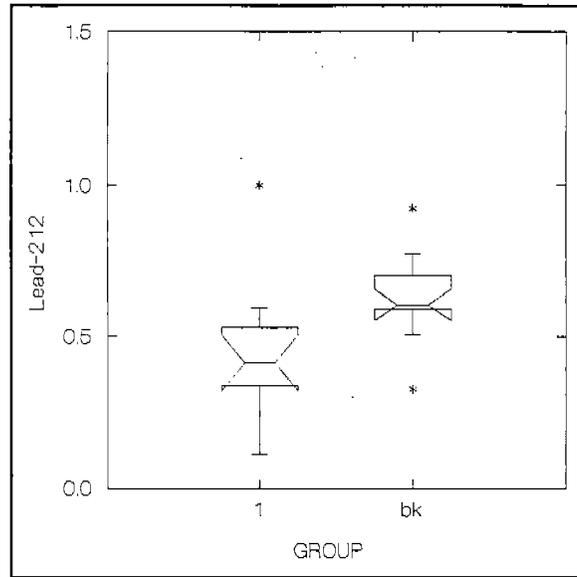
Field sample higher

1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,4-Dichlorobenzene
2,2'-Oxy bis(1-Chloropropane)
2,4-Dimethylphenol
2-Methylnaphthalene
2-Methylphenol
3,3'-Dichlorobenzidine
4,4-DDD
4,4-DDE
4,4-DDT
4,6-Dinitro-2-Methylphenol
4-Methylphenol

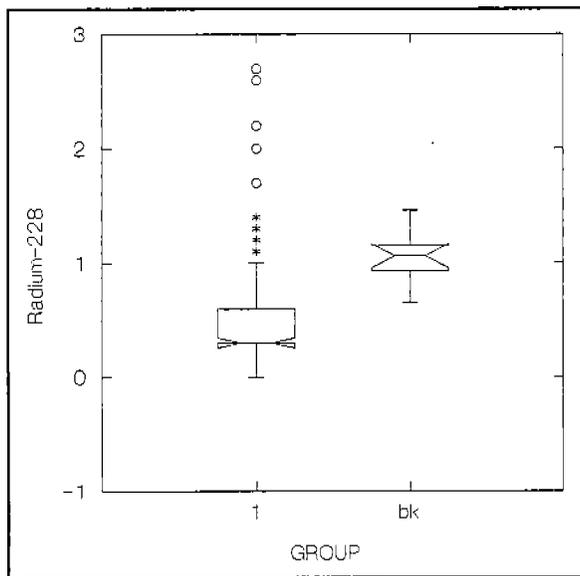
4-Nitrophenol
Acenaphthene
Acenaphthylene
Acetone
Aldrin
Anthracene
Antimony
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Benzene
Benzo(K)Fluoranthene
Beryllium
Butylbenzylphthalate
Cobalt
Copper
Cyanide
Dibenz(A,H)Anthracene
Dibenzofuran
Diethylphthalate
Fluorene
Heptachlor
Heptachlor Epoxide
Naphthalene
Phenol
Potassium
Thallium
Alpha-BHC
Alpha-Chlordane
Gamma-Chlordane



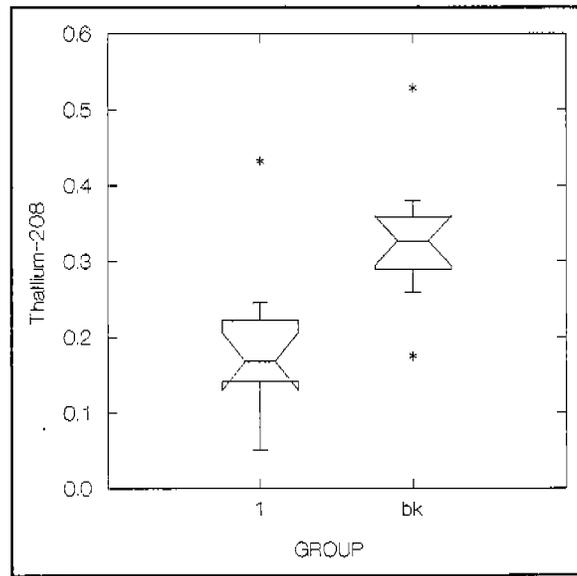
Actinium-228



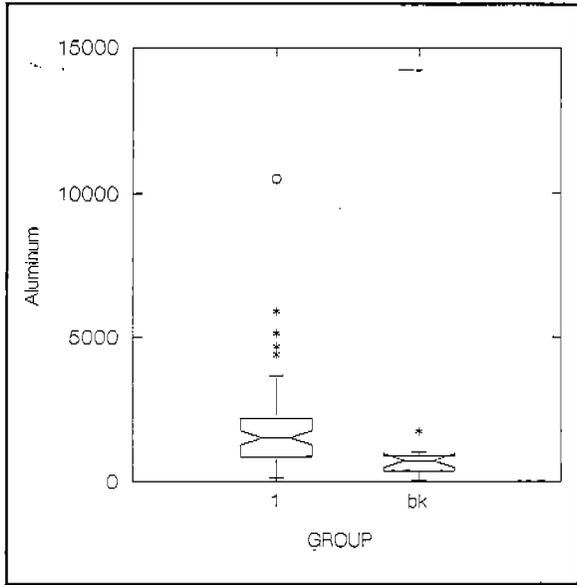
Lead-212



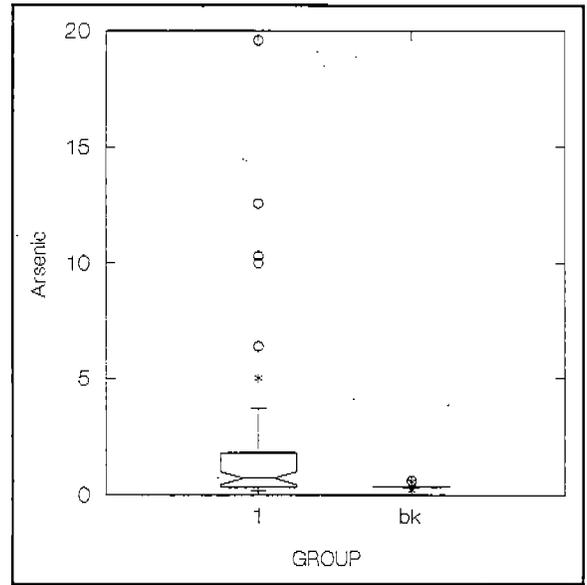
Radium-228



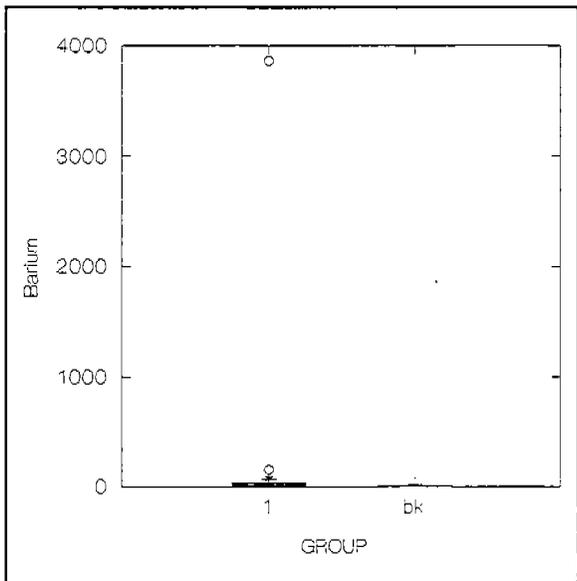
Thallium-208



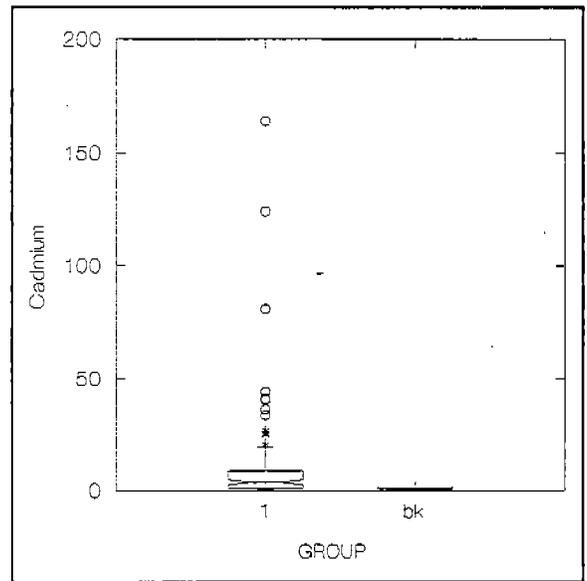
Aluminum



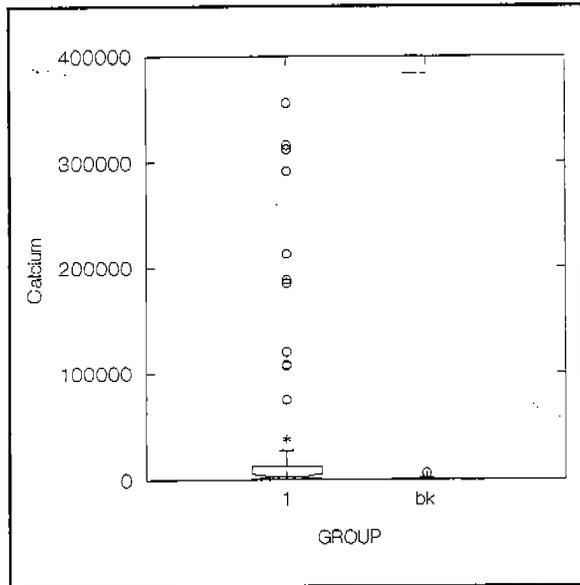
Arsenic



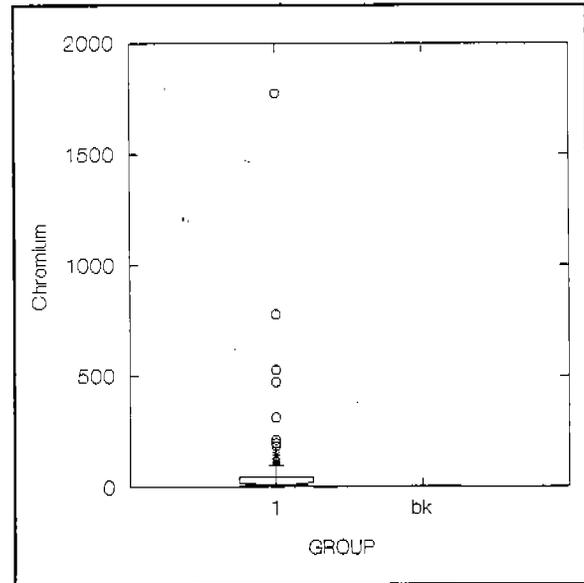
Barium



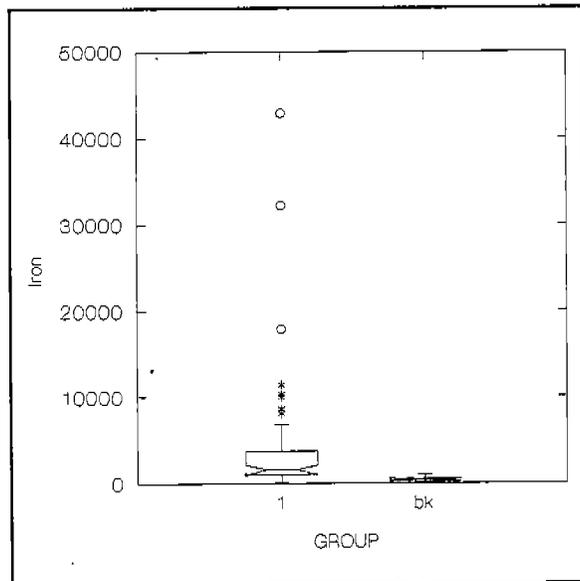
Cadmium



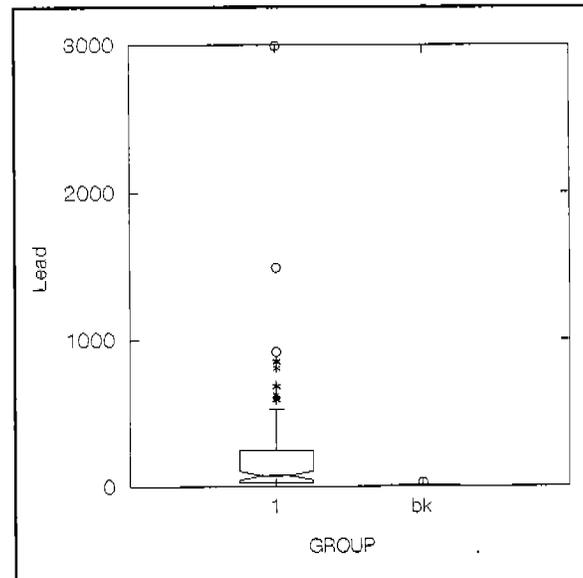
Calcium



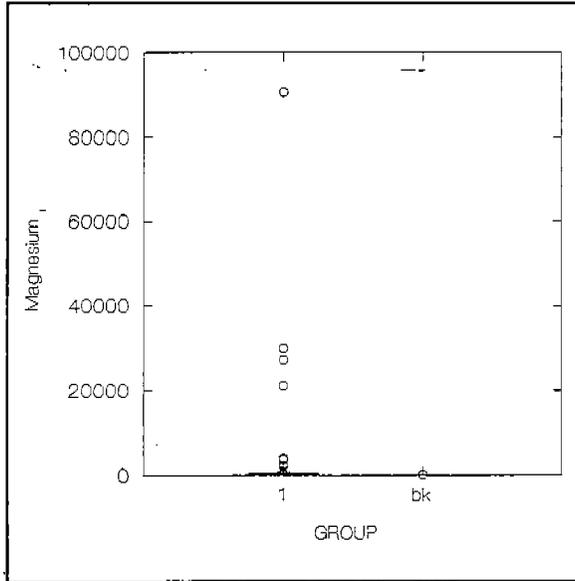
Chromium



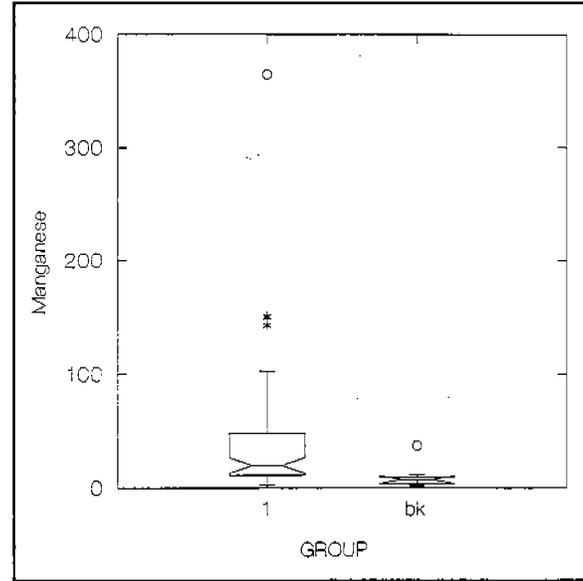
Iron



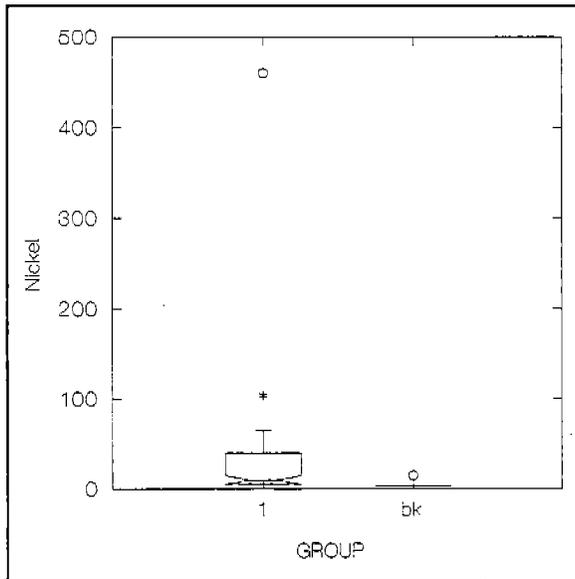
Lead



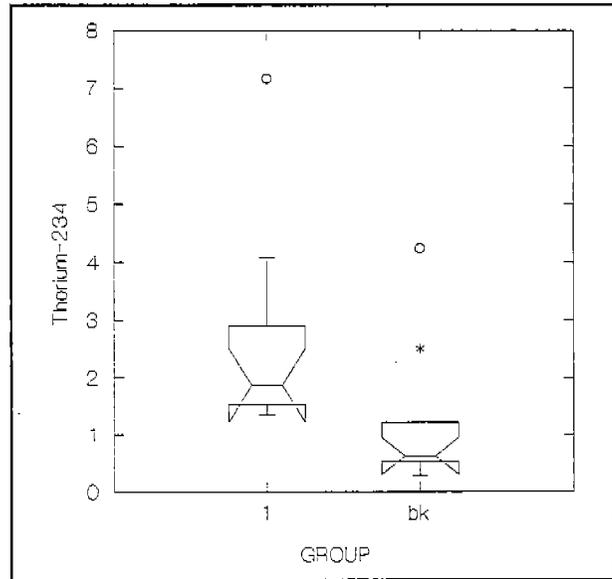
Magnesium



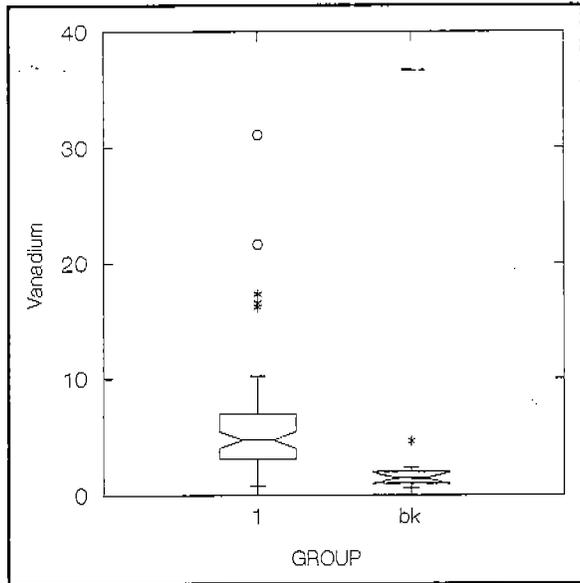
Manganese



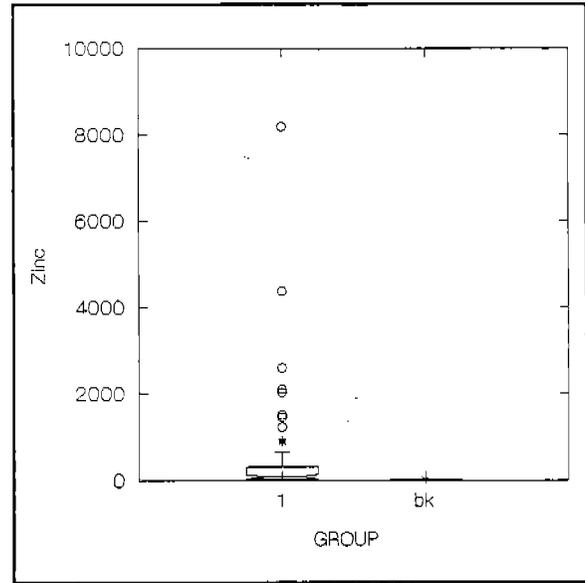
Nickel



Thorium-234



Vanadium



Zinc

Subsurface Soils:

Parameters with different populations:

Background higher
Radium-228

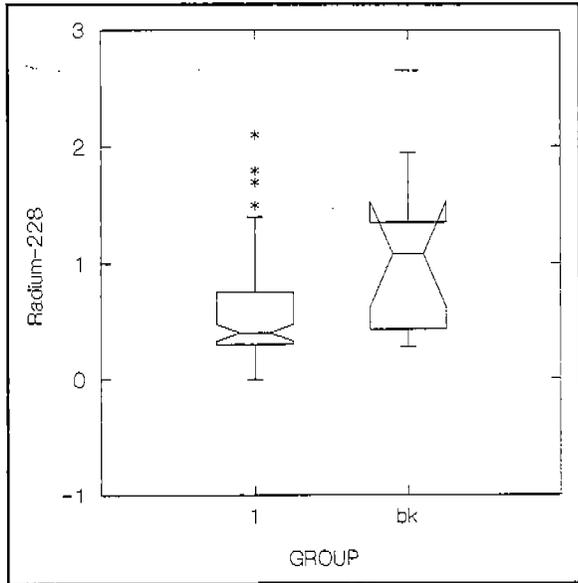
Field sample higher
Arsenic
Calcium
Chromium
Lead
Manganese
Nickel
Zinc

Unequal detection limits:

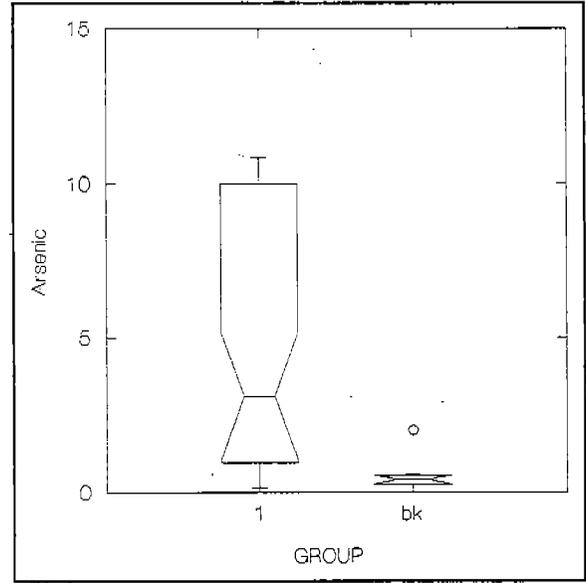
Background higher
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,2-Dichloroethane
1,2-Dichloroethene (Total)
1,2-Dichloropropane
Benzene
Bromodichloromethane
Bromoform
Carbon Disulfide
Chlorobenzene
Chloroform
Ethylbenzene
Methylene Chloride
Styrene
Tetrachloroethene
Toluene
Trichloroethene
Xylene (Total)
Cis-1,3-Dichloropropene
Trans-1,3-Dichloropropene

Field sample higher
3,3'-Dichlorobenzidine
4,4-DDD
4,4-DDE
4,4-DDT
Aldrin
Antimony
Aroclor-1248
Beryllium
Cadmium

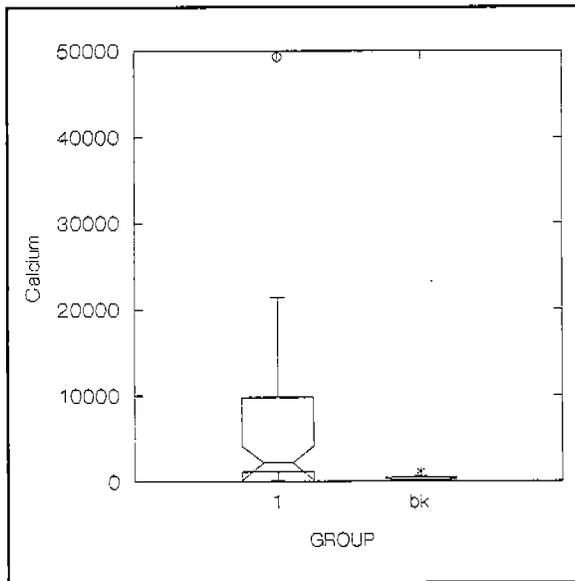
Cobalt
Copper
Cyanide --
Endrin
Heptachlor
Methoxychlor
Phenol
Thallium
Alpha-Chlordane
Bis(2-Ethylhexyl)Phthalate
Gamma-Chlordane



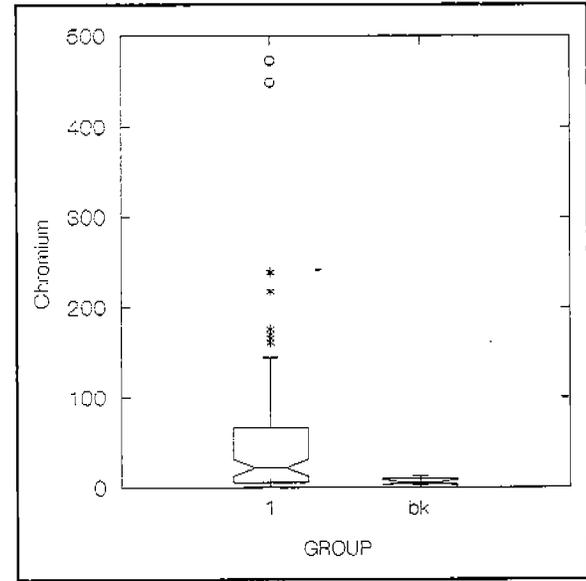
Radium-228



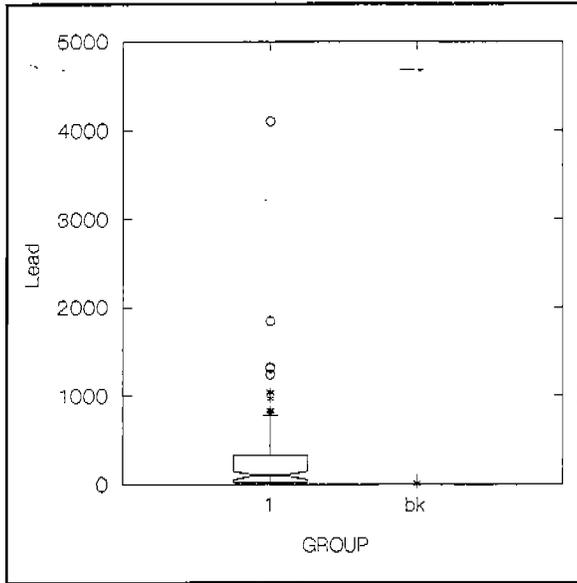
Arsenic



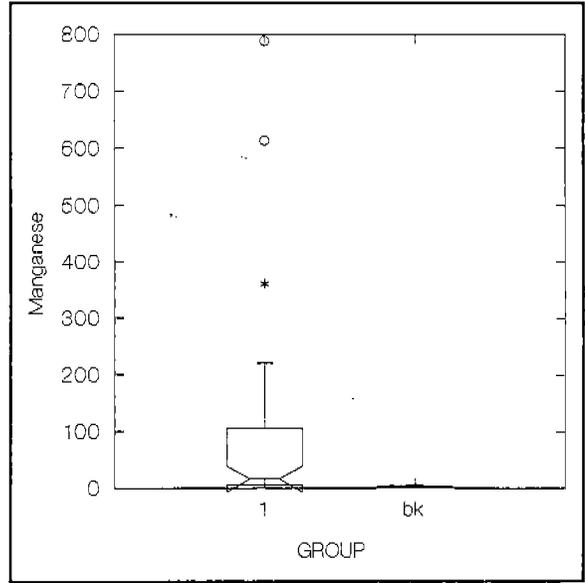
Calcium



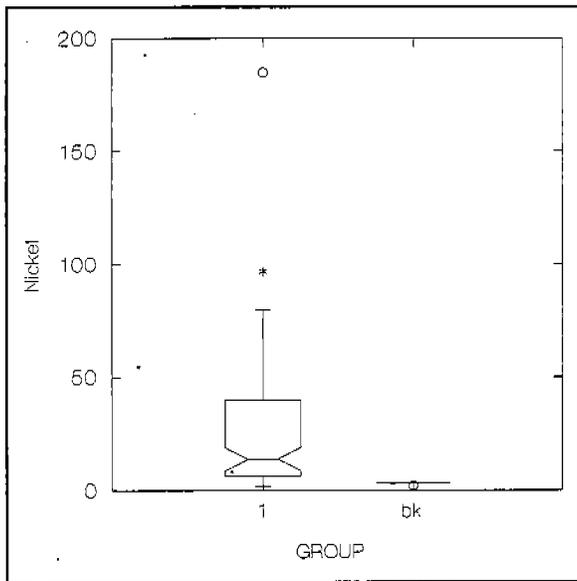
Chromium



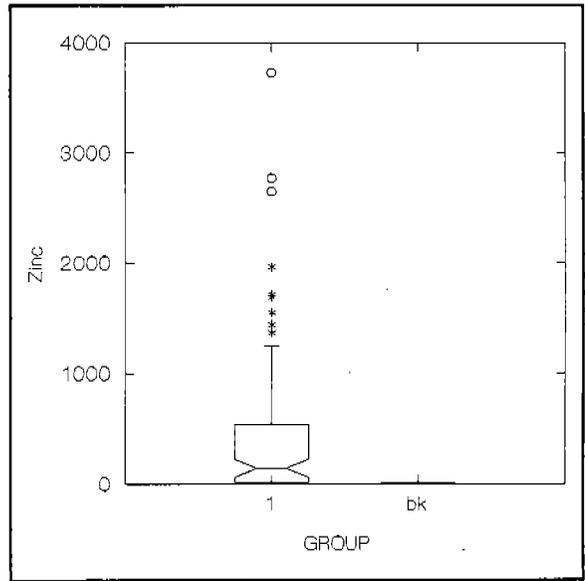
Lead



Manganese



Nickel



Zinc

Surface Water:

Parameters with different populations

Background higher

Diss. Aluminum
Diss. Zinc

Field sample higher

Arsenic
Calcium
Diss. Barium
Diss. Calcium
Diss. Magnesium
Diss. Manganese
Diss. Potassium
Diss. Sodium
Magnesium
Manganese
Potassium
Sodium

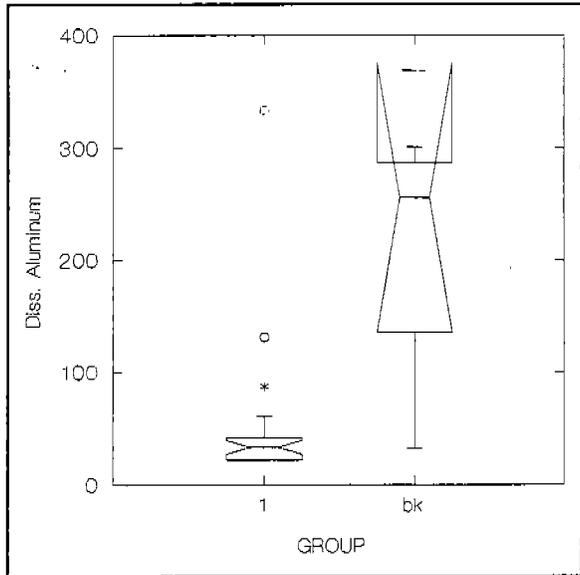
Unequal detection limits:

Background higher

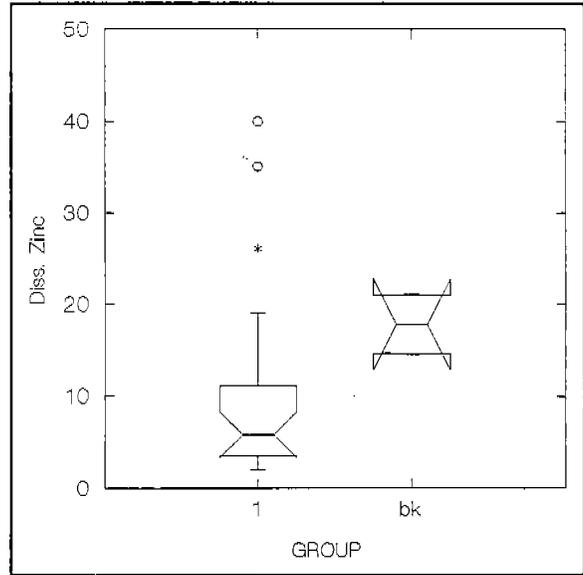
1,1,2,2-Tetrachloroethane
1,1-Dichloroethane
4,4-DDE
Aroclor-1260
Benzene
Chlorobenzene
Diss. Chromium
Ethylbenzene
Toluene

Field sample higher

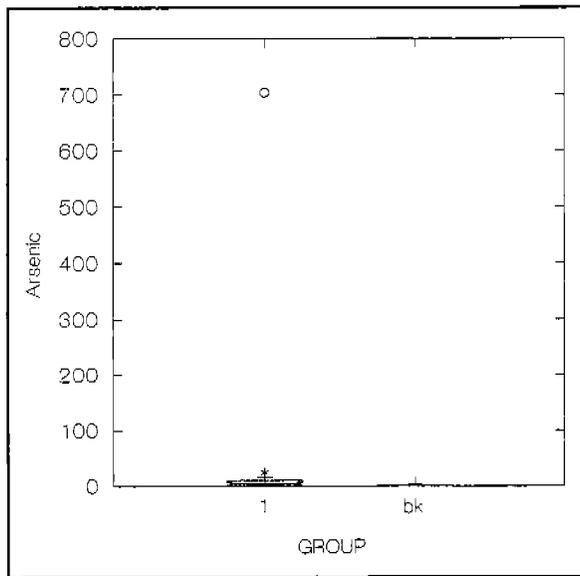
Antimony
Cadmium
Cyanide
Diss. Arsenic
Diss. Cadmium
Diss. Mercury
Diss. Selenium
Mercury
Nickel
Selenium
Thallium



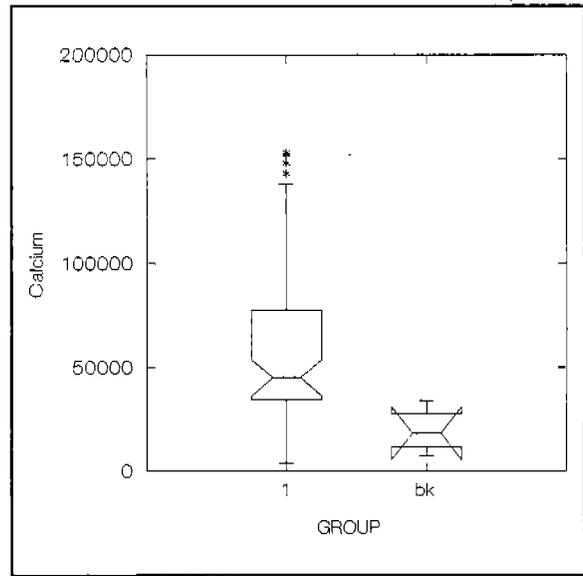
Diss. Aluminum



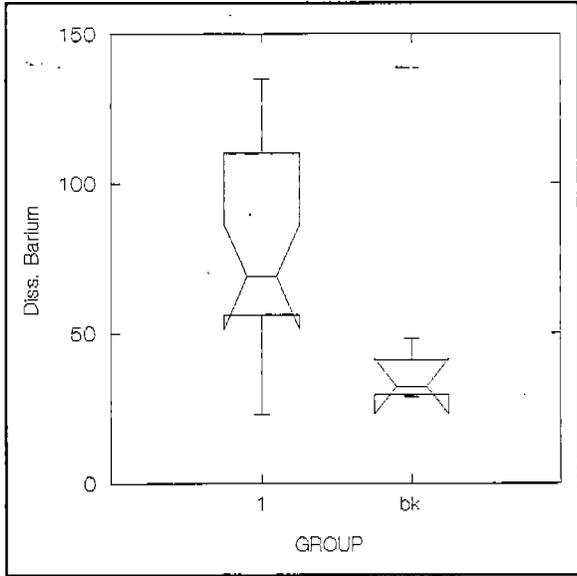
Diss. Zinc



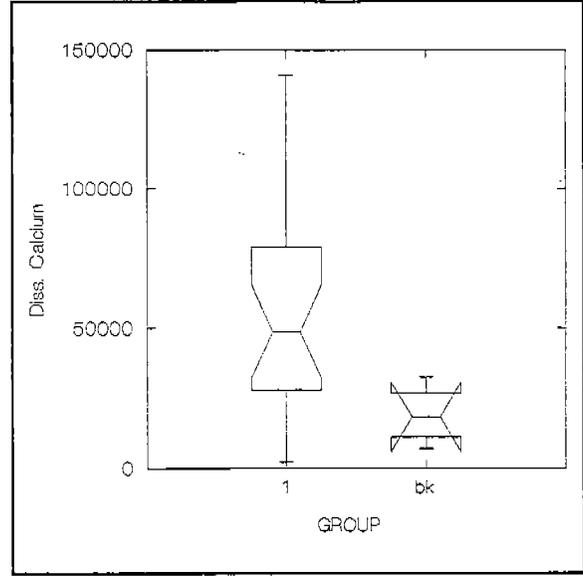
Arsenic



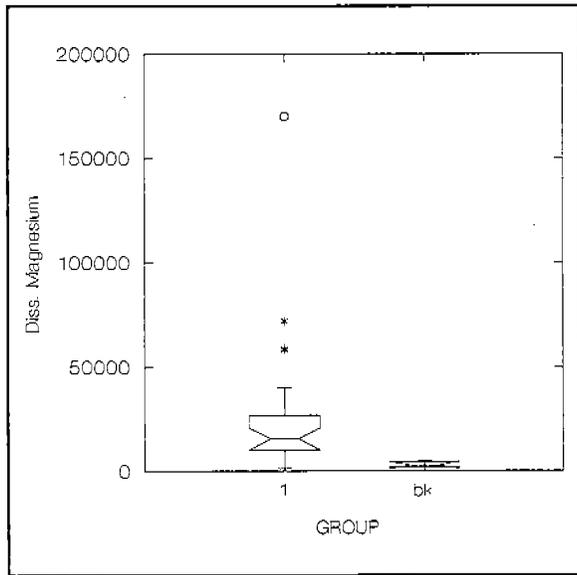
Calcium



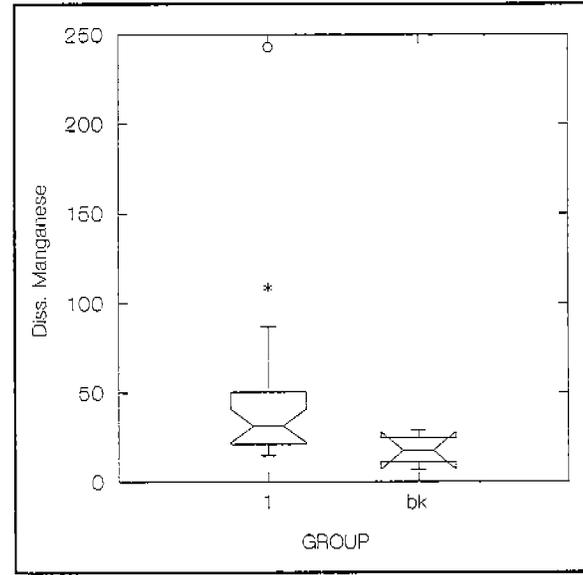
Diss. Barium



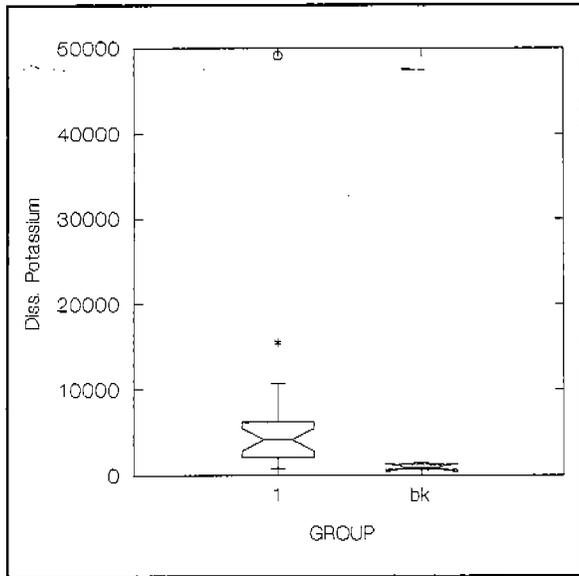
Diss. Calcium



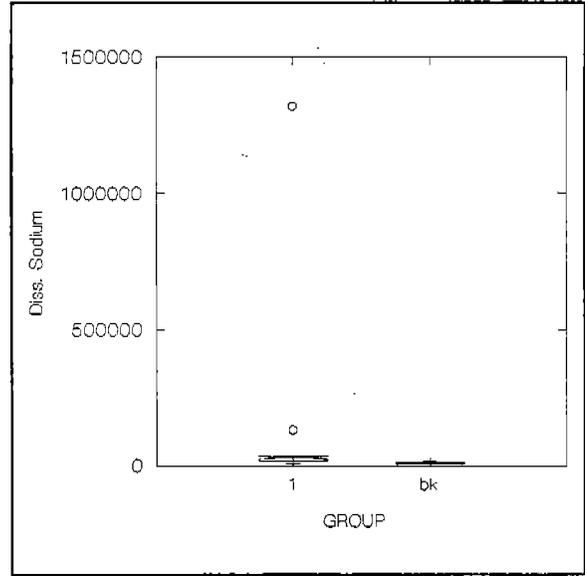
Diss. Magnesium



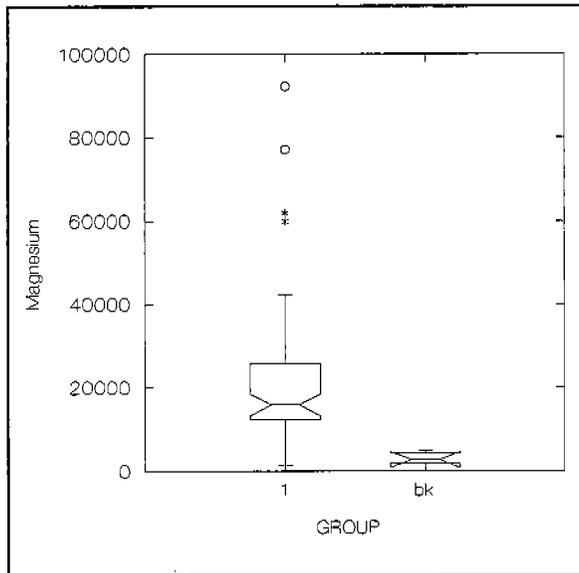
Diss. Manganese



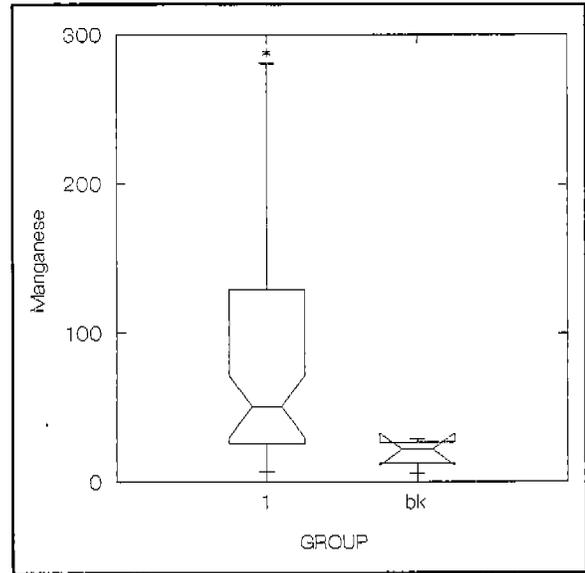
Diss. Potassium



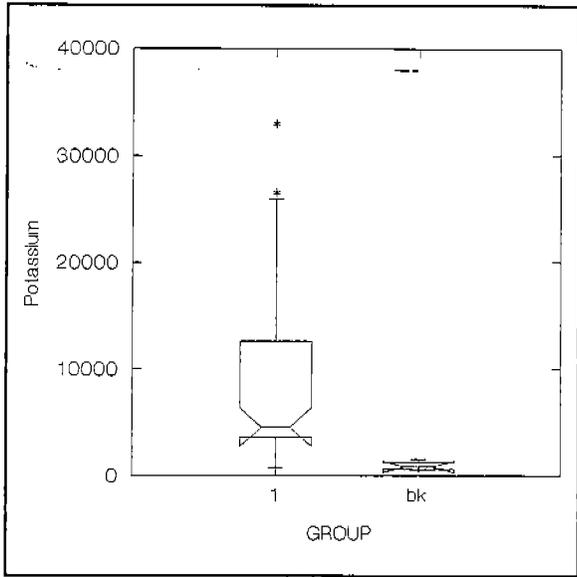
Diss. Sodium



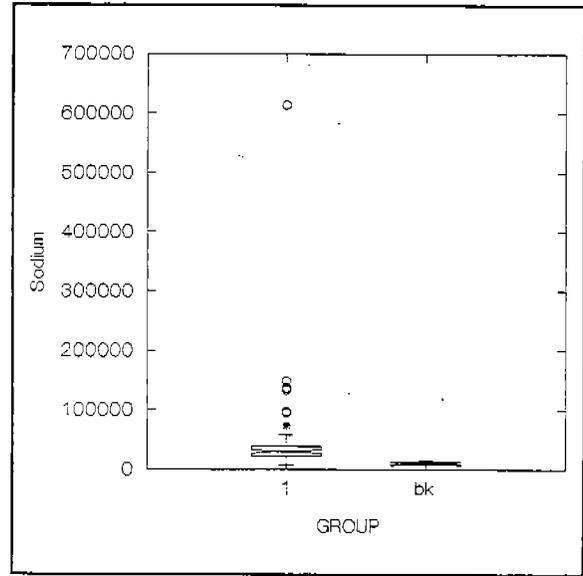
Magnesium



Manganese



Potassium



Sodium

Ground Water:

Background higher

Arsenic
Diss. Aluminum
Diss. Zinc

Field sample higher

Calcium
Cobalt
Diss. Calcium
Diss. Magnesium
Diss. Potassium
Diss. Sodium
Magnesium
Sodium

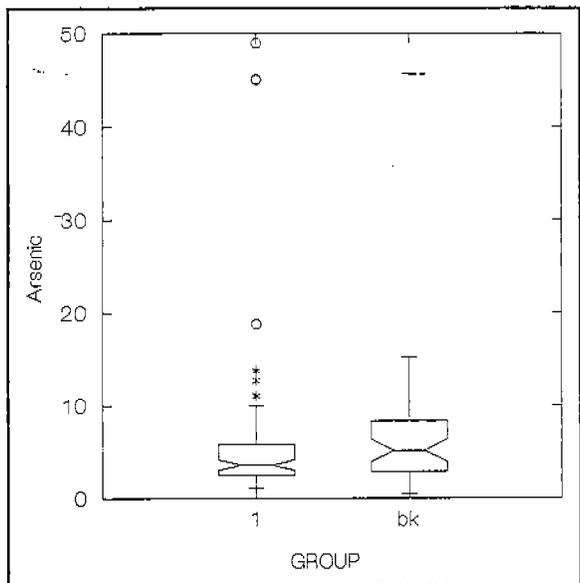
Unequal detection limits:

Background higher

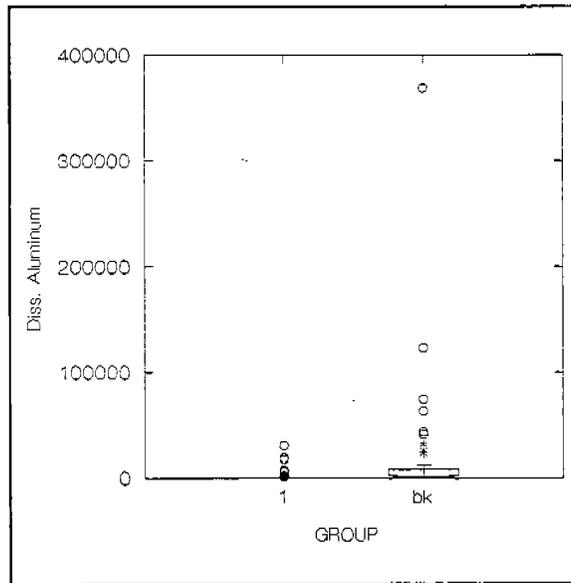
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichlorobenzene
1,2-Dichloroethane
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Actinium-228
Benzene
Bismuth-214
Carbon Tetrachloride
Diss. Beryllium
Ethylbenzene
Lead-212
Radium-223
Radium-224
Tetrachloroethene
Thallium-208
Thorium-231
Thorium-234
Toluene
Trichloroethene

Field sample higher

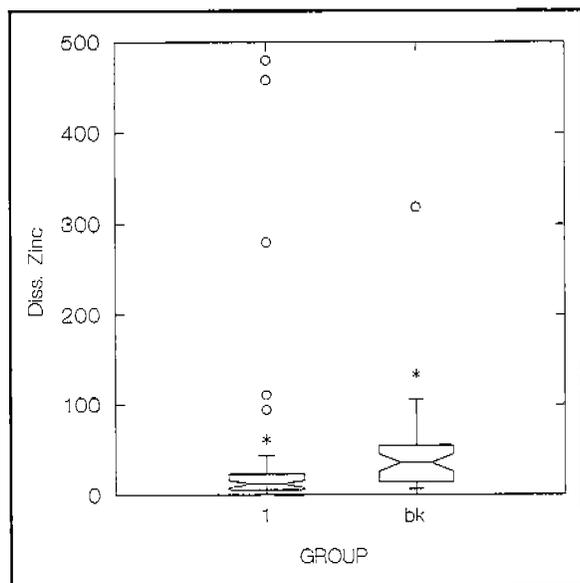
Cyanide
Diss. Cobalt
Diss. Lead
Diss. Mercury
Diss. Selenium
Diss. Thallium
Mercury
Selenium



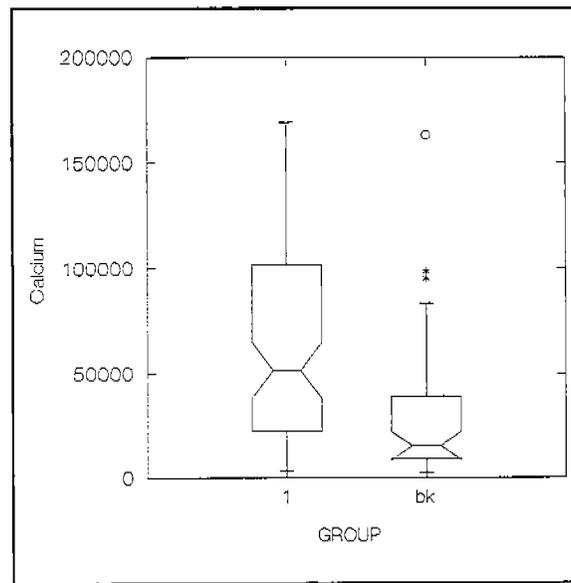
Arsenic



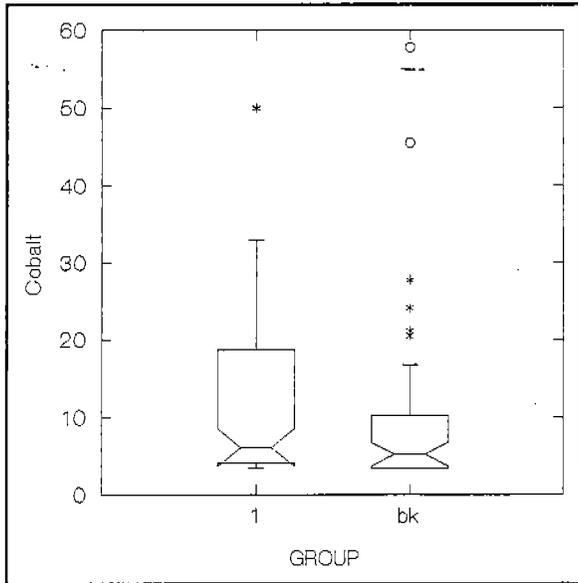
Diss. Aluminum



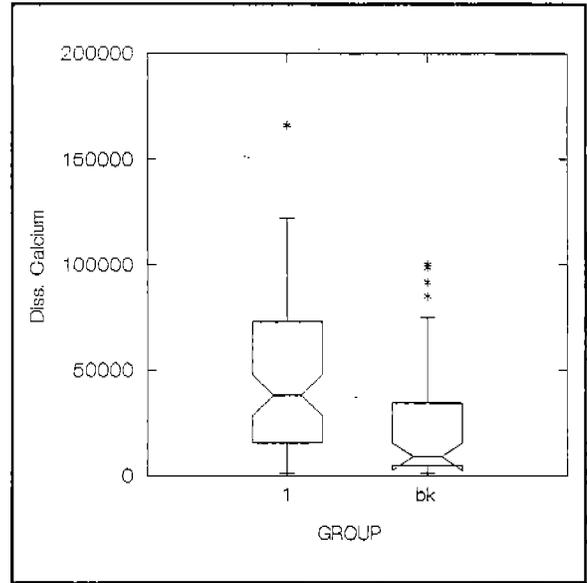
Diss. Zinc



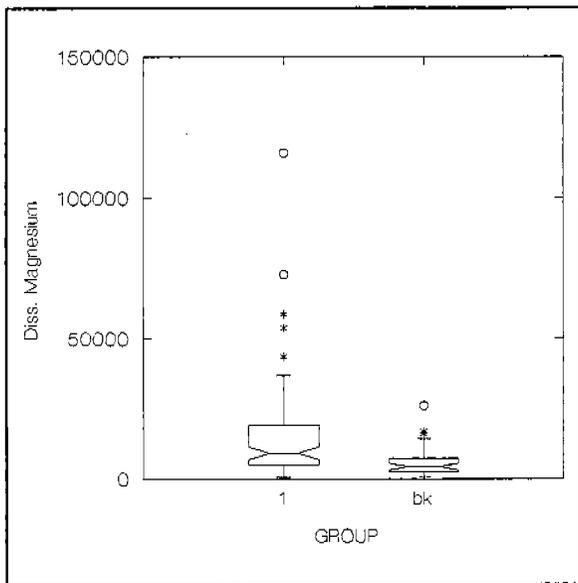
Calcium



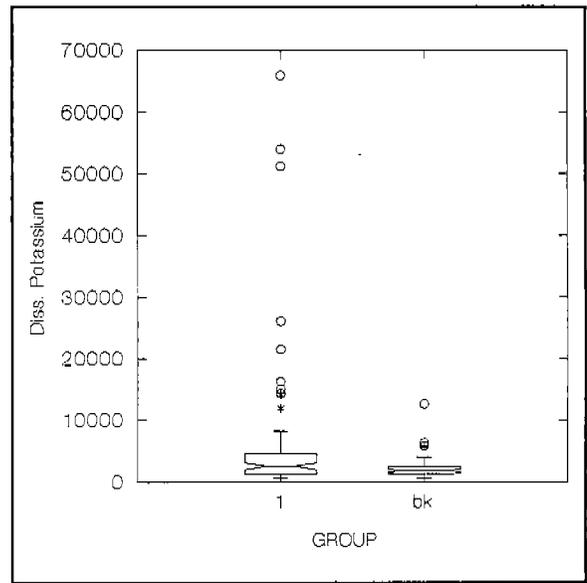
Cobalt



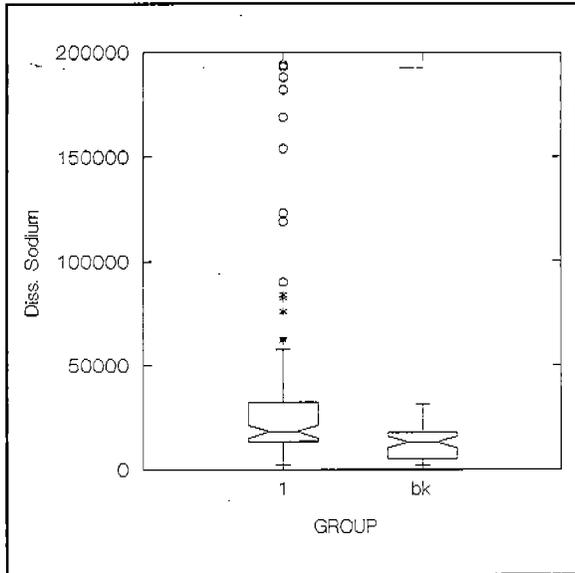
Diss. Calcium



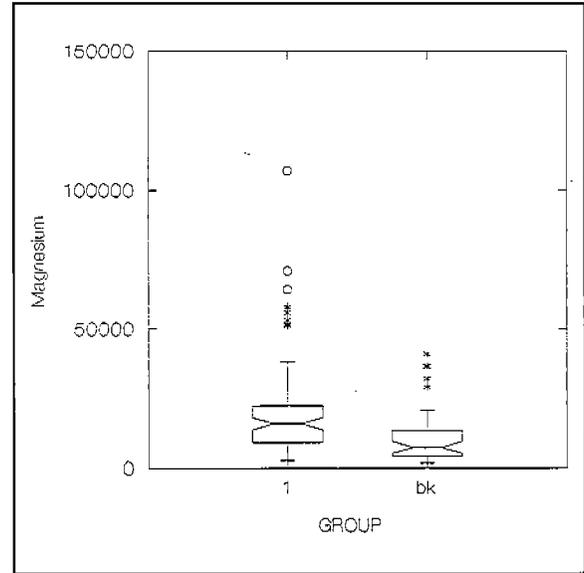
Diss. Magnesium



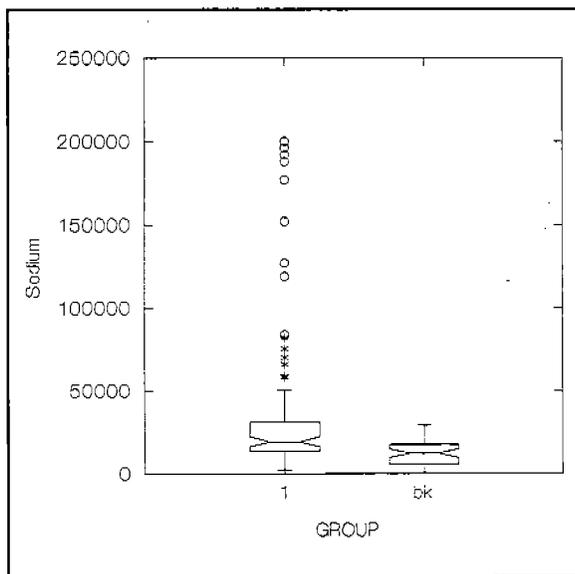
Diss. Potassium



Diss. Sodium



Magnesium



Sodium

Background Soil Borings

Chem.name is chemical name...

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
1,1,2,2-Tetrachloroethane	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
1,1,2-Trichloroethane	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
1,1-Dichloroethane	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
1,1-Dichloroethene	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
1,2,4-Trichlorobenzene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
1,2-Dichlorobenzene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
1,2-Dichloroethane	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
1,2-Dichloroethene (total)	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
1,2-Dichloropropane	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
1,3-Dichlorobenzene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
1,4-Dichlorobenzene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2,2'-oxybis(1-Chloropropa	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2,4,5-Trichlorophenol	780.000	1000.000	N/A	N/A	N/A	1000.000 U	0/11
2,4,6-Trichlorophenol	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2,4-Dichlorophenol	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2,4-Dimethylphenol	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2,4-Dinitrophenol	950.000	1000.000	N/A	N/A	N/A	1000.000 U	0/11
2,4-Dinitrotoluene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2,6-Dinitrotoluene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2-Butanone	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
2-Chloronaphthalene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2-Chlorophenol	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2-Hexanone	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
2-Methylnaphthalene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2-Methylphenol	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
2-Nitroaniline	950.000	1000.000	N/A	N/A	N/A	1000.000 U	0/11
2-Nitrophenol	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
3,3'-Dichlorobenzidine	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
3-Nitroaniline	950.000	1000.000	N/A	N/A	N/A	1000.000 U	0/11
4,4-DDD	3.900	4.300	N/A	N/A	N/A	4.100 U	0/11
4,4-DDE	3.900	4.300	0.290	0.290	0.290	4.000 U	1/11
4,4-DDT	3.900	4.300	1.700	1.700	1.700	4.000 U	1/11
4,6-Dinitro-2-Methylpheno	950.000	1000.000	N/A	N/A	N/A	1000.000 U	0/11
4-Bromophenyl-phenylether	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
4-Chloro-3-Methylphenol	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
4-Chloroaniline	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
4-Chlorophenyl-phenylethe	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
4-Methyl-2-Pentanone	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
4-Methylphenol	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
4-Nitroaniline	950.000	1000.000	N/A	N/A	N/A	1000.000 U	0/11
4-Nitrophenol	950.000	1000.000	N/A	N/A	N/A	1000.000 U	0/11
Acenaphthene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
Acenaphthylene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
Acetone	12.000	24.000	4.000	11.000	7.250	12.000 U	4/11
Actinium-228	0.187	0.284	0.466	1.950	1.201	0.969	8/10
Aldrin	2.000	2.200	N/A	N/A	N/A	2.100 U	0/11
Aluminum	N/A	N/A	373.000	7620.000	3411.600	2620.000 J	10/10
Anthracene	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
Antimony	4.400	7.000	N/A	N/A	N/A	6.800 U	0/10
Aroclor-1016	39.000	82.000	N/A	N/A	N/A	41.000 U	0/11
Aroclor-1221	40.000	87.000	N/A	N/A	N/A	83.000 U	0/11
Aroclor-1232	39.000	43.000	N/A	N/A	N/A	41.000 U	0/11
Aroclor-1242	39.000	43.000	N/A	N/A	N/A	41.000 U	0/11
Aroclor-1248	39.000	43.000	N/A	N/A	N/A	41.000 U	0/11
Aroclor-1254	39.000	43.000	N/A	N/A	N/A	41.000 U	0/11
Aroclor-1260	39.000	43.000	N/A	N/A	N/A	41.000 U	0/11
Arsenic	0.240	0.250	0.410	2.000	0.742	0.415 J	6/10
Barium	N/A	N/A	2.000	20.900	10.400	8.500 J	10/10
Benzene	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11

Benzo(a)Anthracene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Benzo(a)Pyrene	390.000	430.000	21.000	21.000	21.000	410.000	U	1/11
Benzo(b)Fluoranthene	390.000	430.000	34.000	34.000	34.000	410.000	U	1/11
Benzo(g,h,i)Perylene	390.000	430.000	29.000	29.000	29.000	410.000	U	1/11
Benzo(k)Fluoranthene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Beryllium	0.070	0.250	0.240	0.250	0.245	0.240	J	2/10
Bismuth-210	0.380	1.060	0.444	2.030	1.241	0.658	U	3/10
Bismuth-214	0.324	0.324	0.642	1.580	0.936	0.839		9/10
Bromodichloromethane	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Bromoform	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Bromomethane	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Butylbenzylphthalate	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Cadmium	0.750	1.200	N/A	N/A	N/A	1.200	UJ	0/10
Calcium	N/A	N/A	44.800	1200.000	334.150	175.500	J	10/10
Carbazole	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Carbon Disulfide	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Carbon Tetrachloride	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Cesium-137	0.022	0.255	N/A	N/A	N/A	0.037	U	0/10
Chlorobenzene	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Chloroethane	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Chloroform	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Chloromethane	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Chromium	2.500	2.500	2.900	12.300	7.056	5.350		9/10
Chrysene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Cobalt	0.740	2.500	N/A	N/A	N/A	2.400	U	0/10
Copper	0.270	1.200	N/A	N/A	N/A	1.200	U	0/10
Cyanide	0.120	0.620	N/A	N/A	N/A	0.600	U	0/7
Di-n-Butylphthalate	390.000	430.000	460.000	460.000	460.000	410.000	U	1/11
Di-n-Octyl Phthalate	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Dibenz(a,h)Anthracene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Dibenzofuran	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Dibromochloromethane	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Dieldrin	3.900	4.300	N/A	N/A	N/A	4.100	U	0/11
Diethylphthalate	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Dimethylphthalate	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Endosulfan I	2.000	2.200	N/A	N/A	N/A	2.100	U	0/11
Endosulfan II	3.900	4.300	N/A	N/A	N/A	4.100	U	0/11
Endosulfan sulfate	3.900	4.300	N/A	N/A	N/A	4.100	U	0/11
Endrin	3.900	4.300	N/A	N/A	N/A	4.100	U	0/11
Endrin aldehyde	3.900	4.300	N/A	N/A	N/A	4.100	U	0/11
Endrin ketone	3.900	4.300	N/A	N/A	N/A	4.100	U	0/11
Ethylbenzene	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
Fluoranthene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Fluorene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Heptachlor	2.000	2.200	N/A	N/A	N/A	2.100	U	0/11
Heptachlor epoxide	2.000	2.200	N/A	N/A	N/A	2.100	U	0/11
Hexachlorobenzene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Hexachlorobutadiene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Hexachlorocyclopentadiene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Hexachloroethane	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Indeno(1,2,3-cd)Pyrene	390.000	430.000	23.000	23.000	23.000	410.000	U	1/11
Iron	N/A	N/A	105.000	15600.000	2909.100	1030.000	J	10/10
Isophorone	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Lead	N/A	N/A	1.500	5.600	3.230	3.300	J	10/10
Lead-212	N/A	N/A	0.237	1.170	0.671	0.730		10/10
Lead-214	N/A	N/A	0.212	1.340	0.744	0.672		10/10
Magnesium	7.200	7.400	104.000	700.000	250.125	120.500	J	8/10
Manganese	N/A	N/A	1.500	7.200	3.450	3.350	J	10/10
Mercury	0.060	0.130	N/A	N/A	N/A	0.120	U	0/10
Methoxychlor	20.000	22.000	1.200	1.200	1.200	21.000	U	1/11
Methylene Chloride	12.000	12.000	N/A	N/A	N/A	12.000	U	0/11
N-Nitroso-Di-n-Propylamin	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
N-Nitrosodiphenylamine (1	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Naphthalene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Nickel	2.100	3.200	N/A	N/A	N/A	3.200	U	0/10
Nitrobenzene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Pentachlorophenol	950.000	1000.000	N/A	N/A	N/A	1000.000	U	0/11
Phenanthrene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11
Phenol	20.000	430.000	20.000	24.000	21.500	390.000	U	4/11
Potassium	105.000	143.000	187.000	252.000	225.333	142.000	U	3/10
Potassium-40	0.713	0.821	2.120	8.760	5.570	4.110		8/10
Pyrene	390.000	430.000	N/A	N/A	N/A	410.000	U	0/11

Radium-223	0.159	0.430	0.286	1.560	0.900	0.289 U	3/10
Radium-224	0.697	1.650	1.130	2.310	1.585	1.335	6/10
Radium-228	0.274	0.284	0.429	1.950	1.216	1.075	8/10
Selenium	0.240	0.510	N/A	N/A	N/A	0.240 UJ	0/10
Silver	0.300	1.700	N/A	N/A	N/A	1.700 U	0/10
Sodium	89.700	89.700	117.000	342.000	171.556	137.500 J	9/10
Styrene	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
Tetrachloroethene	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
Thallium	0.240	0.250	N/A	N/A	N/A	0.240 U	0/10
Thallium-208	N/A	N/A	0.113	0.511	0.328	0.332	10/10
Thorium-231	0.057	33.800	0.044	0.240	0.145	0.104	6/10
Thorium-232	0.274	1.530	0.429	1.950	1.171	1.075	7/10
Thorium-234	0.311	1.150	2.960	4.530	3.484	2.055	5/10
Toluene	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
Toxaphene	40.000	220.000	N/A	N/A	N/A	210.000 U	0/11
Trichloroethene	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
Uranium-234	0.311	0.912	1.600	2.520	1.962	1.256	5/10
Uranium-238	0.311	0.912	1.600	2.520	1.962	1.256	5/10
Vanadium	1.500	1.500	0.990	16.700	7.288	5.250 J	9/10
Vinyl Chloride	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
Xylene (total)	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
Zinc	3.800	3.800	4.100	12.800	7.244	5.800	9/10
alpha-BHC	2.000	2.200	N/A	N/A	N/A	2.100 U	0/11
alpha-Chlordane	2.000	2.200	0.370	0.450	0.410	2.100 U	2/11
beta-BHC	2.000	2.200	N/A	N/A	N/A	2.100 U	0/11
bis(2-Chloroethoxy)Methan	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
bis(2-Chloroethyl)Ether	390.000	430.000	N/A	N/A	N/A	410.000 U	0/11
bis(2-Ethylhexyl)Phthalat	390.000	430.000	54.000	170.000	90.333	170.000 J	6/11
cis-1,3-Dichloropropene	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11
delta-BHC	2.000	2.200	N/A	N/A	N/A	2.100 U	0/11
gamma-BHC (Lindane)	2.000	2.200	N/A	N/A	N/A	2.100 U	0/11
gamma-Chlordane	2.000	2.200	0.410	0.550	0.480	2.100 U	2/11
trans-1,3-Dichloropropene	12.000	12.000	N/A	N/A	N/A	12.000 U	0/11

Background Surface Soils

Chem.name is chemical name...

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
1,1,2,2-Tetrachloroethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
1,1,2-Trichloroethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
1,1-Dichloroethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
1,1-Dichloroethene	10.000	13.000	N/A	N/A	N/A	11.000 U	0/14
1,2,4-Trichlorobenzene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
1,2-Dichlorobenzene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
1,2-Dichloroethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
1,2-Dichloroethene (total)	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
1,2-Dichloropropane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
1,3-Dichlorobenzene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
1,4-Dichlorobenzene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2,2'-oxybis(1-Chloropropa	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2,4,5-Trichlorophenol	380.000	1000.000	N/A	N/A	N/A	870.000 U	0/15
2,4,6-Trichlorophenol	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2,4-Dichlorophenol	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2,4-Dimethylphenol	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2,4-Dinitrophenol	830.000	1000.000	N/A	N/A	N/A	880.000 U	0/15
2,4-Dinitrotoluene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2,6-Dinitrotoluene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2-Butanone	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
2-Chloronaphthalene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2-Chlorophenol	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2-Hexanone	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
2-Methylnaphthalene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2-Methylphenol	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
2-Nitroaniline	380.000	1000.000	N/A	N/A	N/A	880.000 U	0/15
2-Nitrophenol	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
3,3'-Dichlorobenzidine	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
3-Nitroaniline	830.000	1000.000	N/A	N/A	N/A	880.000 U	0/15
4,4-DDD	3.500	73.000	2.700	160.000	100.900	4.100 U	3/15
4,4-DDE	3.400	73.000	1.800	15.000	8.083	4.100 U	6/15
4,4-DDT	3.400	73.000	2.200	18.000	9.040	4.100 U	5/15
4,6-Dinitro-2-Methylpheno	830.000	1000.000	N/A	N/A	N/A	880.000 U	0/15
4-Bromophenyl-phenylether	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
4-Chloro-3-Methylphenol	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
4-Chloroaniline	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
4-Chlorophenyl-phenylethe	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
4-Methyl-2-Pentanone	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
4-Methylphenol	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
4-Nitroaniline	830.000	1000.000	N/A	N/A	N/A	880.000 U	0/15
4-Nitrophenol	830.000	1000.000	N/A	N/A	N/A	880.000 U	0/15
Acenaphthene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Acenaphthylene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Acetone	10.000	13.000	3.000	11.000	6.667	11.000 U	6/15
Actinium-228	N/A	N/A	0.652	1.460	1.020	1.060	11/11
Aldrin	1.800	38.000	N/A	N/A	N/A	2.100 U	0/13
Aluminum	N/A	N/A	31.800	1710.000	667.891	713.000 J	11/11
Anthracene	350.000	420.000	37.000	37.000	37.000	360.000 U	1/15
Antimony	3.000	6.400	N/A	N/A	N/A	6.000 UJ	0/11
Aroclor-1016	34.000	730.000	N/A	N/A	N/A	41.000 U	0/15
Aroclor-1221	70.000	1500.000	N/A	N/A	N/A	83.000 U	0/15
Aroclor-1232	34.000	730.000	N/A	N/A	N/A	41.000 U	0/15
Aroclor-1242	34.000	730.000	N/A	N/A	N/A	41.000 U	0/15
Aroclor-1248	34.000	730.000	N/A	N/A	N/A	41.000 U	0/15
Aroclor-1254	34.000	730.000	N/A	N/A	N/A	41.000 U	0/15
Aroclor-1260	35.000	730.000	26.000	26.000	26.000	41.000 U	1/15
Arsenic	0.210	0.370	0.290	0.600	0.399	0.350 J	8/11
Barium	N/A	N/A	1.100	12.700	5.391	4.000 J	11/11
Benzene	10.000	13.000	N/A	N/A	N/A	11.000 U	0/14

Benzo(a)Anthracene	350.000	420.000	27.000	250.000	138.500	360.000 U	2/15
Benzo(a)Pyrene	350.000	420.000	25.000	150.000	59.500	360.000 U	4/15
Benzo(b)Fluoranthene	350.000	420.000	26.000	330.000	111.250	360.000 U	4/15
Benzo(g,h,i)Perylene	350.000	420.000	25.000	80.000	49.250	360.000 U	4/15
Benzo(k)Fluoranthene	350.000	420.000	20.000	100.000	49.333	360.000 U	3/15
Beryllium	0.040	0.230	N/A	N/A	N/A	0.210 U	0/11
Bismuth-210	0.250	0.719	1.400	2.580	1.853	0.590 U	4/11
Bismuth-214	N/A	N/A	0.437	1.020	0.698	0.666	11/11
Bromodichloromethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Bromoform	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Bromomethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Butylbenzylphthalate	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Cadmium	0.740	1.100	N/A	N/A	N/A	1.100 UJ	0/11
Calcium	N/A	N/A	48.200	6200.000	1078.882	161.000 J	11/11
Carbazole	350.000	420.000	46.000	46.000	46.000	360.000 U	1/15
Carbon Disulfide	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Carbon Tetrachloride	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Cesium-137	0.042	0.174	0.030	0.527	0.135	0.101	9/11
Chlorobenzene	10.000	13.000	N/A	N/A	N/A	11.000 U	0/14
Chloroethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Chloroform	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Chloromethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Chromium	1.000	2.300	1.500	4.600	3.300	2.300 U	7/11
Chrysene	350.000	420.000	20.000	350.000	108.250	360.000 U	4/15
Cobalt	0.480	2.300	N/A	N/A	N/A	2.100 U	0/11
Copper	0.270	1.100	1.700	5.200	2.933	1.100 U	3/11
Cyanide	0.060	0.510	N/A	N/A	N/A	0.120 U	0/5
Di-n-Butylphthalate	340.000	530.000	99.000	510.000	304.500	360.000 U	2/15
Di-n-Octyl Phthalate	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Dibenz(a,h)Anthracene	350.000	420.000	18.000	31.000	22.333	360.000 U	3/15
Dibenzofuran	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Dibromochloromethane	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Dieldrin	3.400	38.000	0.430	240.000	134.358	4.100 U	4/15
Diethylphthalate	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Dimethylphthalate	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Endosulfan I	1.800	38.000	N/A	N/A	N/A	2.100 U	0/15
Endosulfan II	3.400	73.000	N/A	N/A	N/A	4.100 U	0/15
Endosulfan sulfate	3.400	73.000	N/A	N/A	N/A	4.100 U	0/15
Endrin	3.400	120.000	N/A	N/A	N/A	4.200 U	0/15
Endrin aldehyde	3.400	73.000	N/A	N/A	N/A	4.100 U	0/15
Endrin ketone	3.400	73.000	N/A	N/A	N/A	4.100 U	0/15
Ethylbenzene	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
Fluoranthene	350.000	420.000	20.000	390.000	115.500	360.000 U	4/15
Fluorene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Heptachlor	1.800	38.000	2.600	2.800	2.700	2.100 U	2/15
Heptachlor epoxide	1.800	38.000	18.000	22.000	20.000	2.100 U	2/15
Hexachlorobenzene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Hexachlorobutadiene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Hexachlorocyclopentadiene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Hexachloroethane	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Indeno(1,2,3-cd)Pyrene	350.000	420.000	22.000	88.000	48.250	360.000 U	4/15
Iron	N/A	N/A	124.000	928.000	418.727	397.000	11/11
Isophorone	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Lead	N/A	N/A	1.200	26.600	6.800	3.700 J	11/11
Lead-212	N/A	N/A	0.325	0.923	0.630	0.604	11/11
Lead-214	N/A	N/A	0.412	0.991	0.678	0.694	11/11
Magnesium	6.400	6.400	15.900	154.000	47.300	29.800 J	10/11
Manganese	N/A	N/A	1.400	37.400	9.045	7.300	11/11
Mercury	0.070	0.120	N/A	N/A	N/A	0.100 U	0/11
Methoxychlor	18.000	380.000	N/A	N/A	N/A	21.000 U	0/15
Methylene Chloride	10.000	13.000	N/A	N/A	N/A	11.000 U	0/15
N-Nitroso-Di-n-Propylamin	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
N-Nitrosodiphenylamine (1	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Naphthalene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Nickel	2.800	3.000	2.600	14.700	5.017	3.000 U	6/11
Nitrobenzene	340.000	420.000	N/A	N/A	N/A	360.000 U	0/15
Pentachlorophenol	830.000	1000.000	N/A	N/A	N/A	880.000 U	0/15
Phenanthrene	350.000	420.000	36.000	36.000	36.000	360.000 U	1/15
Phenol	350.000	420.000	19.000	20.000	19.500	360.000 U	2/15
Potassium	2.800	200.000	N/A	N/A	N/A	122.000 U	0/11
Potassium-40	N/A	N/A	0.800	4.650	2.782	2.820	11/11
Pyrene	350.000	420.000	18.000	430.000	126.750	360.000 U	4/15

Radium-223	0.104	0.333	0.709	1.560	1.136	0.293	U	4/11
Radium-224	0.849	2.070	1.260	2.140	1.594	1.410		7/11
Radium-228	N/A	N/A	0.652	1.460	1.037	1.060		11/11
Selenium	0.210	0.550	N/A	N/A	N/A	0.220	U	0/11
Silver	0.300	1.600	N/A	N/A	N/A	1.500	UJ	0/11
Sodium	56.200	70.300	103.000	221.000	143.625	124.000	J	8/11
Styrene	10.000	13.000	N/A	N/A	N/A	11.000	U	0/15
Tetrachloroethene	10.000	13.000	N/A	N/A	N/A	11.000	U	0/15
Thallium	0.210	0.260	0.210	0.210	0.210	0.220	U	1/11
Thallium-208	N/A	N/A	0.175	0.529	0.330	0.327		11/11
Thorium-231	0.026	0.042	0.123	0.145	0.136	0.042	U	5/11
Thorium-232	0.652	0.652	0.724	1.460	1.076	1.060		10/11
Thorium-234	0.290	2.510	1.190	4.240	2.715	0.619	U	2/11
Toluene	10.000	13.000	N/A	N/A	N/A	11.000	U	0/14
Toxaphene	180.000	3800.000	N/A	N/A	N/A	210.000	U	0/15
Trichloroethene	10.000	13.000	N/A	N/A	N/A	11.000	U	0/14
Uranium-234	0.290	0.619	2.230	2.380	2.305	0.505	U	2/11
Uranium-238	0.290	0.619	2.230	2.380	2.305	0.505	U	2/11
Vanadium	0.810	1.000	0.580	4.600	1.897	1.450	J	8/10
Vinyl Chloride	10.000	13.000	N/A	N/A	N/A	11.000	U	0/15
Xylene (total)	10.000	13.000	N/A	N/A	N/A	11.000	U	0/15
Zinc	2.100	7.900	3.800	16.100	7.638	5.500		8/11
alpha-BHC	1.800	38.000	N/A	N/A	N/A	2.100	U	0/15
alpha-Chlordane	1.800	38.000	0.250	720.000	446.750	2.100	U	3/15
beta-BHC	1.800	38.000	N/A	N/A	N/A	2.100	U	0/15
bis(2-Chloroethoxy)Methan	340.000	420.000	N/A	N/A	N/A	360.000	U	0/15
bis(2-Chloroethyl)Ether	340.000	420.000	N/A	N/A	N/A	360.000	U	0/15
bis(2-Ethylhexyl)Phthalat	340.000	420.000	18.000	44.000	29.333	360.000	U	3/15
cis-1,3-Dichloropropene	10.000	13.000	N/A	N/A	N/A	11.000	U	0/15
delta-BHC	1.800	38.000	N/A	N/A	N/A	2.100	U	0/15
gamma-BHC (Lindane)	1.800	38.000	N/A	N/A	N/A	2.100	U	0/15
gamma-Chlordane	1.800	38.000	0.370	620.000	290.295	2.100	U	4/15
trans-1,3-Dichloropropene	10.000	13.000	N/A	N/A	N/A	11.000	U	0/15

Background Sediments

Chem.name is chemical name__

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
1,1,2,2-Tetrachloroethane	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
1,1,2-Trichloroethane	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
1,1-Dichloroethane	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
1,1-Dichloroethene	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
1,2,4-Trichlorobenzene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
1,2-Dichlorobenzene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
1,2-Dichloroethane	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
1,2-Dichloroethene (total)	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
1,2-Dichloropropane	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
1,3-Dichlorobenzene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
1,4-Dichlorobenzene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2,2'-oxybis(1-Chloropropa	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2,4,5-Trichlorophenol	1100.000	1100.000	N/A	N/A	N/A	1100.000 U	0/4
2,4,6-Trichlorophenol	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2,4-Dichlorophenol	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2,4-Dimethylphenol	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2,4-Dinitrophenol	1100.000	1100.000	N/A	N/A	N/A	1100.000 U	0/4
2,4-Dinitrotoluene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2,6-Dinitrotoluene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2-Butanone	14.000	14.000	8.000	8.000	8.000	14.000 U	1/4
2-Chloronaphthalene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2-Chlorophenol	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2-Hexanone	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
2-Methylnaphthalene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2-Methylphenol	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
2-Nitroaniline	1100.000	1100.000	N/A	N/A	N/A	1100.000 U	0/4
2-Nitrophenol	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
3,3'-Dichlorobenzidine	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
3-Nitroaniline	1100.000	1100.000	N/A	N/A	N/A	1100.000 U	0/4
4,4-DDD	4.200	4.700	51.000	51.000	51.000	4.600 U	1/4
4,4-DDE	4.500	4.700	3.100	170.000	86.550	4.600 U	2/4
4,4-DDT	4.200	22.000	N/A	N/A	N/A	4.600 U	0/4
4,6-Dinitro-2-Methylpheno	1100.000	1100.000	N/A	N/A	N/A	1100.000 U	0/4
4-Bromophenyl-phenylether	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
4-Chloro-3-Methylphenol	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
4-Chloroaniline	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
4-Chlorophenyl-phenylethe	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
4-Methyl-2-Pentanone	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
4-Methylphenol	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
4-Nitroaniline	1100.000	1100.000	N/A	N/A	N/A	1100.000 U	0/4
4-Nitrophenol	1100.000	1100.000	N/A	N/A	N/A	1100.000 U	0/4
Acenaphthene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
Acenaphthylene	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
Acetone	14.000	14.000	24.000	35.000	28.667	25.500	3/4
Actinium-228	N/A	N/A	0.640	0.887	0.797	0.887	4/4
Aldrin	2.200	11.000	N/A	N/A	N/A	2.350 U	0/4
Aluminum	N/A	N/A	239.000	1220.000	595.000	460.500	4/4
Anthracene	450.000	470.000	84.000	84.000	84.000	450.000 U	1/4
Antimony	3.200	4.800	4.600	4.600	4.600	4.050 J	1/4
Aroclor-1016	42.000	220.000	N/A	N/A	N/A	46.000 U	0/4
Aroclor-1221	86.000	450.000	N/A	N/A	N/A	93.500 U	0/4
Aroclor-1232	42.000	450.000	N/A	N/A	N/A	46.000 U	0/4
Aroclor-1242	42.000	450.000	N/A	N/A	N/A	46.000 U	0/4
Aroclor-1248	42.000	450.000	N/A	N/A	N/A	46.000 U	0/4
Aroclor-1254	42.000	450.000	N/A	N/A	N/A	46.000 U	0/4
Aroclor-1260	42.000	450.000	N/A	N/A	N/A	46.000 U	0/4
Arsenic	0.800	0.800	0.200	0.970	0.627	0.755 U	3/4
Barium	N/A	N/A	2.200	9.600	4.925	3.950 J	4/4
Benzene	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4

Benzo(a)Anthracene	450.000	470.000	470.000	470.000	470.000	460.000	U	1/4
Benzo(a)Pyrene	450.000	470.000	480.000	480.000	480.000	460.000	U	1/4
Benzo(b)Fluoranthene	450.000	470.000	540.000	540.000	540.000	460.000	U	1/4
Benzo(g,h,i)Perylene	450.000	470.000	90.000	90.000	90.000	450.000	U	1/4
Benzo(k)Fluoranthene	450.000	470.000	370.000	370.000	370.000	450.000	U	1/4
Beryllium	0.110	0.150	0.240	0.240	0.240	0.140	U	1/4
Bismuth-212	0.409	0.513	1.060	1.340	1.200	0.787		2/4
Bismuth-214	N/A	N/A	0.418	0.668	0.535	0.493		4/4
Bromodichloromethane	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Bromoform	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Bromomethane	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Butylbenzylphthalate	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Cadmium	0.180	0.930	0.300	0.300	0.300	0.255	J	1/4
Calcium	N/A	N/A	124.000	8660.000	3234.000	2076.000	J	4/4
Carbazole	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Carbon Disulfide	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Carbon Tetrachloride	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Cesium-134	0.037	0.047	N/A	N/A	N/A	0.042	U	0/4
Cesium-137	0.053	0.069	0.095	0.140	0.118	0.082		2/4
Chlorobenzene	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Chloroethane	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Chloroform	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Chloromethane	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Chromium	1.400	1.400	0.730	2.900	1.910	1.750	J	3/4
Chrysene	450.000	470.000	540.000	540.000	540.000	460.000	U	1/4
Cobalt	0.930	1.600	1.900	1.900	1.900	1.450	U	1/4
Copper	0.630	0.630	2.600	4.200	3.500	3.150	J	3/4
Cyanide	0.230	0.230	0.060	0.110	0.080	0.090	J	3/4
Di-n-Butylphthalate	450.000	590.000	N/A	N/A	N/A	460.000	U	0/4
Di-n-Octyl Phthalate	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Dibenz(a,h)Anthracene	450.000	470.000	80.000	80.000	80.000	450.000	U	1/4
Dibenzofuran	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Dibromochloromethane	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Dieldrin	4.200	22.000	N/A	N/A	N/A	4.600	U	0/4
Diethylphthalate	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Dimethylphthalate	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Endosulfan I	2.200	11.000	N/A	N/A	N/A	2.350	U	0/4
Endosulfan II	4.200	22.000	N/A	N/A	N/A	4.600	U	0/4
Endosulfan sulfate	4.200	22.000	N/A	N/A	N/A	4.600	U	0/4
Endrin	4.200	22.000	N/A	N/A	N/A	4.600	U	0/4
Endrin aldehyde	4.200	22.000	N/A	N/A	N/A	4.600	U	0/4
Endrin ketone	4.200	22.000	N/A	N/A	N/A	4.600	U	0/4
Ethylbenzene	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
Fluoranthene	450.000	470.000	1300.000	1300.000	1300.000	460.000	U	1/4
Fluorene	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Heptachlor	2.200	11.000	N/A	N/A	N/A	2.350	U	0/4
Heptachlor epoxide	2.200	11.000	N/A	N/A	N/A	2.350	U	0/4
Hexachlorobenzene	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Hexachlorobutadiene	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Hexachlorocyclopentadiene	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Hexachloroethane	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Indeno(1,2,3-cd)Pyrene	450.000	470.000	180.000	180.000	180.000	450.000	U	1/4
Iron	N/A	N/A	560.000	2290.000	1150.000	875.000		4/4
Isophorone	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Lead	N/A	N/A	2.000	12.300	7.150	7.150	J	4/4
Lead-212	N/A	N/A	0.378	0.816	0.523	0.450		4/4
Lead-214	0.107	0.292	0.447	0.447	0.447	0.224	U	1/4
Magnesium	N/A	N/A	25.200	110.000	65.525	63.450	J	4/4
Manganese	N/A	N/A	1.500	4.900	3.375	3.550		4/4
Mercury	0.030	0.040	0.050	0.050	0.050	0.040	U	1/4
Methoxychlor	22.000	110.000	N/A	N/A	N/A	23.500	U	0/4
Methylene Chloride	14.000	14.000	N/A	N/A	N/A	14.000	U	0/4
N-Nitroso-Di-n-Propylamin	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
N-Nitrosodiphenylamine (1	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Naphthalene	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Nickel	3.500	3.500	2.900	3.400	3.067	3.150	J	3/4
Nitrobenzene	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Pentachlorophenol	1100.000	1100.000	N/A	N/A	N/A	1100.000	U	0/4
Phenanthrene	450.000	470.000	590.000	590.000	590.000	460.000	U	1/4
Phenol	450.000	470.000	N/A	N/A	N/A	450.000	U	0/4
Potassium	85.800	119.000	109.000	109.000	109.000	100.350	J	1/4
Potassium-40	1.330	1.940	3.660	3.660	3.660	1.825	U	1/4

Proactinium-231	1.990	2.420	N/A	N/A	N/A	2.300 U	0/4
Pyrene	450.000	470.000	1100.000	1100.000	1100.000	460.000 U	1/4
Selenium	0.180	0.460	0.210	0.210	0.210	0.210 J	1/4
Silver	0.460	1.200	N/A	N/A	N/A	0.515 U	0/4
Sodium	4.900	4.900	239.000	260.000	249.000	243.500 J	3/4
Styrene	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
Tetrachloroethene	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
Thallium	0.180	0.240	0.190	0.190	0.190	0.200 U	1/4
Thallium-208	N/A	N/A	0.188	0.286	0.244	0.251	4/4
Thorium-227	0.307	1.010	N/A	N/A	N/A	0.752 U	0/4
Thorium-228	11.000	14.700	N/A	N/A	N/A	12.400 U	0/4
Thorium-234	3.500	4.950	N/A	N/A	N/A	4.140 U	0/4
Toluene	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
Total Petroleum Hydrocarb	N/A	N/A	22.500	51.600	33.275	29.500	4/4
Toxaphene	220.000	1100.000	N/A	N/A	N/A	235.000 U	0/4
Trichloroethene	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
Uranium-235	0.074	0.094	0.125	0.125	0.125	0.091 U	1/4
Vanadium	0.680	0.680	0.770	4.600	2.557	1.535 J	3/4
Vinyl Chloride	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
Xylene (total)	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
Zinc	N/A	N/A	2.600	18.800	9.225	7.750	4/4
alpha-BHC	2.200	11.000	N/A	N/A	N/A	2.350 U	0/4
alpha-Chlordane	2.200	11.000	N/A	N/A	N/A	2.350 U	0/4
beta-BHC	2.200	11.000	N/A	N/A	N/A	2.350 U	0/4
bis(2-Chloroethoxy)Methan	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
bis(2-Chloroethyl)Ether	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
bis(2-Ethylhexyl)Phthalat	450.000	470.000	N/A	N/A	N/A	450.000 U	0/4
cis-1,3-Dichloropropene	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4
delta-BHC	2.200	11.000	N/A	N/A	N/A	2.350 U	0/4
gamma-BHC (Lindane)	2.200	11.000	N/A	N/A	N/A	2.350 U	0/4
gamma-Chlordane	2.200	11.000	N/A	N/A	N/A	2.350 U	0/4
trans-1,3-Dichloropropene	14.000	14.000	N/A	N/A	N/A	14.000 U	0/4

Background Ground Water

Chem.name is chemical name--

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,1,2,2-Tetrachloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,1,2-Trichloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,1-Dichloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,1-Dichloroethene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,2,4-Trichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,2-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,2-Dichloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,2-Dichloroethene (total)	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,2-Dichloropropane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,3-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
1,4-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2,2'-oxybis(1-Chloropropa	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2,4,5-Trichlorophenol	25.000	25.000	N/A	N/A	N/A	25.000 U	0/49
2,4,6-Trichlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2,4-Dichlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2,4-Dimethylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2,4-Dinitrophenol	25.000	25.000	N/A	N/A	N/A	25.000 U	0/49
2,4-Dinitrotoluene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2,6-Dinitrotoluene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2-Butanone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2-Chloronaphthalene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2-Chlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2-Hexanone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2-Methylnaphthalene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
2-Nitroaniline	25.000	25.000	N/A	N/A	N/A	25.000 U	0/49
2-Nitrophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
3,3'-Dichlorobenzidine	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
3-Nitroaniline	25.000	25.000	N/A	N/A	N/A	25.000 U	0/49
4,4-DDD	0.100	0.100	N/A	N/A	N/A	0.100 U	0/48
4,4-DDE	0.100	0.100	0.006	0.006	0.006	0.100 U	1/48
4,4-DDT	0.100	0.100	N/A	N/A	N/A	0.100 U	0/48
4,6-Dinitro-2-Methylpheno	25.000	25.000	N/A	N/A	N/A	25.000 U	0/49
4-Bromophenyl-phenylether	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
4-Chloro-3-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
4-Chloroaniline	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
4-Chlorophenyl-phenylethe	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
4-Methyl-2-Pentanone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
4-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
4-Nitroaniline	25.000	25.000	N/A	N/A	N/A	25.000 U	0/49
4-Nitrophenol	25.000	25.000	N/A	N/A	N/A	25.000 U	0/49
Acenaphthene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
Acenaphthylene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
Acetone	10.000	77.000	N/A	N/A	N/A	10.000 U	0/49
Actinium-228	6.600	18.400	21.800	46.800	30.667	12.300 U	3/49
Aldrin	0.050	0.050	N/A	N/A	N/A	0.050 U	0/48
Aluminum	N/A	N/A	87.300	487000.000	88265.271	25000.000	49/49
Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49
Antimony	12.700	87.000	20.200	25.100	21.867	17.400 U	3/45
Aroclor-1016	1.000	1.000	N/A	N/A	N/A	1.000 U	0/48
Aroclor-1221	2.000	2.000	N/A	N/A	N/A	2.000 U	0/48
Aroclor-1232	1.000	1.000	N/A	N/A	N/A	1.000 U	0/48
Aroclor-1242	1.000	1.000	N/A	N/A	N/A	1.000 U	0/48
Aroclor-1248	1.000	1.000	N/A	N/A	N/A	1.000 U	0/48
Aroclor-1254	1.000	1.000	N/A	N/A	N/A	1.000 U	0/48
Aroclor-1260	1.000	1.000	N/A	N/A	N/A	1.000 U	0/48
Arsenic	0.500	2.900	0.900	15.200	6.803	4.750 J	40/48
Barium	N/A	N/A	15.200	3160.000	359.363	141.000 J	49/49
Benzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/49

Benzo(a)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Benzo(a)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Benzo(b)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Benzo(g,h,i)Perylene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Benzo(k)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Beryllium	0.400	0.500	0.430	30.000	4.795	1.200	J	35/49
Bismuth-214	6.400	12.900	10.600	31.900	16.300	10.000	U	4/49
Bromodichloromethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Bromoform	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Bromomethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Butylbenzylphthalate	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Cadmium	0.700	17.000	0.780	8.800	4.300	3.400	U	15/49
Calcium	N/A	N/A	2300.000	163000.000	29509.592	15300.000		49/49
Carbazole	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Carbon Disulfide	10.000	10.000	1.000	7.000	3.000	10.000	U	5/49
Carbon Tetrachloride	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Cesium-137	2.200	4.700	N/A	N/A	N/A	3.500	U	0/49
Chlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Chloroethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Chloroform	10.000	10.000	2.000	2.000	2.000	10.000	U	1/49
Chloromethane	10.000	10.000	1.000	3.000	2.000	10.000	U	2/49
Chromium	2.400	5.200	2.400	564.000	125.264	30.000		42/49
Chrysene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Cobalt	3.400	5.200	3.500	57.800	13.243	5.200	J	30/49
Copper	1.100	6.500	3.200	79.300	23.049	5.800	U	35/49
Cyanide	0.900	1.700	1.800	2.500	2.200	1.700	U	4/49
Di-n-Butylphthalate	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Di-n-Octyl Phthalate	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Dibenz(a,h)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Dibenzofuran	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Dibromochloromethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Dieldrin	0.100	0.100	0.012	0.020	0.016	0.100	U	2/48
Diethylphthalate	10.000	10.000	3.000	3.000	3.000	10.000	U	1/49
Dimethylphthalate	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Diss. Aluminum	22.400	147.000	8.000	369000.000	21444.960	459.000		40/49
Diss. Antimony	12.700	32.800	12.800	36.300	19.964	17.400	UJ	11/49
Diss. Arsenic	0.800	2.900	0.800	9.300	4.015	2.900	U	20/49
Diss. Barium	N/A	N/A	9.900	1310.000	108.882	44.800	J	49/49
Diss. Beryllium	0.400	0.500	0.430	10.900	2.439	0.400	U	14/49
Diss. Cadmium	0.700	3.400	1.000	7.400	4.620	3.400	U	5/49
Diss. Calcium	N/A	N/A	1130.000	100000.000	23139.388	8940.000		49/49
Diss. Chromium	2.400	4.200	2.500	430.000	50.710	2.900	U	21/49
Diss. Cobalt	3.400	5.200	3.800	21.600	7.736	3.400	U	11/49
Diss. Copper	1.100	3.200	1.100	70.800	8.862	2.300	U	26/49
Diss. Iron	36.900	36.900	11.800	160000.000	9342.167	2870.000		48/49
Diss. Lead	0.500	41.600	0.600	53.100	6.379	1.100	J	25/49
Diss. Magnesium	N/A	N/A	1030.000	26000.000	5667.143	4360.000	J	49/49
Diss. Manganese	17.400	17.400	1.900	184.000	39.517	32.000		48/49
Diss. Mercury	0.100	0.120	0.100	2.900	1.147	0.120	U	3/49
Diss. Nickel	7.500	12.600	9.400	68.700	25.343	12.600	U	7/49
Diss. Potassium	N/A	N/A	585.000	12600.000	2321.122	1830.000	J	49/49
Diss. Selenium	0.700	1.700	1.200	20.800	8.700	1.700	U	3/49
Diss. Silver	1.800	4.200	5.800	5.800	5.800	4.200	UJ	1/49
Diss. Sodium	N/A	N/A	2070.000	31200.000	12898.163	13000.000		49/49
Diss. Thallium	0.700	0.890	1.000	1.000	1.000	0.890	UJ	1/49
Diss. Vanadium	1.800	6.000	2.900	602.000	54.528	4.100	J	29/49
Diss. Zinc	6.500	12.700	6.200	318.000	44.464	28.400		45/49
Endosulfan I	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
Endosulfan II	0.100	0.100	N/A	N/A	N/A	0.100	U	0/48
Endosulfan sulfate	0.100	0.100	N/A	N/A	N/A	0.100	U	0/48
Endrin	0.100	0.100	N/A	N/A	N/A	0.100	U	0/48
Endrin aldehyde	0.100	0.100	N/A	N/A	N/A	0.100	U	0/48
Endrin ketone	0.100	0.100	N/A	N/A	N/A	0.100	U	0/48
Ethylbenzene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Fluorene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Heptachlor	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
Heptachlor epoxide	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
Hexachlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Hexachlorobutadiene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Hexachlorocyclopentadiene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Hexachloroethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49

Indeno(1,2,3-cd)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Iron	N/A	N/A	223.000	210000.000	40542.898	13100.000		49/49
Isophorone	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Lead	0.690	0.900	0.500	156.000	27.173	7.200	J	41/49
Lead-212	6.200	10.600	30.000	30.000	30.000	7.300	U	1/49
Lead-214	5.400	11.400	13.400	39.700	21.550	7.900	U	4/49
Magnesium	N/A	N/A	1740.000	41100.000	10928.163	7420.000		49/49
Manganese	N/A	N/A	4.500	1240.000	102.796	73.900		49/49
Mercury	0.100	0.120	0.140	2.700	0.617	0.120	U	22/49
Methoxychlor	0.500	0.500	N/A	N/A	N/A	0.500	UJ	0/48
Methylene Chloride	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
N-Nitroso-Di-n-Propylamin	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
N-Nitrosodiphenylamine (1	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Naphthalene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Nickel	7.500	12.600	9.600	174.000	41.581	12.600	J	26/49
Nitrobenzene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Pentachlorophenol	25.000	25.000	N/A	N/A	N/A	25.000	U	0/49
Phenanthrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Phenol	10.000	10.000	1.000	1.000	1.000	10.000	U	1/49
Potassium	2130.000	2130.000	902.000	18100.000	5103.583	2790.000	J	48/49
Potassium-40	15.100	65.000	60.100	145.000	105.700	44.100	U	4/49
Pyrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Radium-223	9.000	28.600	N/A	N/A	N/A	25.700	U	0/49
Radium-224	57.400	98.600	69.600	121.000	100.814	90.000	U	7/49
Selenium	0.700	4.500	0.770	47.900	7.239	1.700	U	12/49
Silver	1.800	21.000	4.200	5.500	4.800	4.200	U	3/49
Sodium	N/A	N/A	790.000	29000.000	12771.020	12200.000		49/49
Styrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Tetrachloroethene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Thallium	0.700	0.890	1.200	1.200	1.200	0.890	U	2/49
Thallium-208	2.100	6.700	6.100	15.900	9.175	4.700	U	4/49
Thorium-231	4.100	7.200	5.700	5.700	5.700	5.000	U	1/49
Thorium-234	88.300	215.000	N/A	N/A	N/A	161.000	U	0/49
Toluene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Toxaphene	5.000	5.000	N/A	N/A	N/A	5.000	U	0/48
Trichloroethene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Vanadium	1.800	6.600	3.300	912.000	175.595	39.700	J	43/49
Vinyl Chloride	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
Xylene (total)	10.000	10.000	1.000	1.000	1.000	10.000	U	1/49
Zinc	N/A	N/A	6.600	329.000	93.251	63.900		49/49
alpha-BHC	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
alpha-Chlordane	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
beta-BHC	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
bis(2-Chloroethoxy)Methan	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
bis(2-Chloroethyl)Ether	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
bis(2-Ethylhexyl)Phthalat	10.000	10.000	0.600	64.000	5.433	10.000	U	21/49
cis-1,3-Dichloropropene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49
delta-BHC	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
gamma-BHC (Lindane)	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
gamma-Chlordane	0.050	0.050	N/A	N/A	N/A	0.050	U	0/48
trans-1,3-Dichloropropene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/49

Background Surface Water

Chem.name is chemical name

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,1,2,2-Tetrachloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,1,2-Trichloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,1-Dichloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,1-Dichloroethene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,2,4-Trichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,2-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,2-Dichloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,2-Dichloroethene (total)	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,2-Dichloropropane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,3-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
1,4-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2,2'-oxybis(1-Chloropropa	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2,4,5-Trichlorophenol	25.000	25.000	N/A	N/A	N/A	25.000 U	0/4
2,4,6-Trichlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2,4-Dichlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2,4-Dimethylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2,4-Dinitrophenol	25.000	25.000	N/A	N/A	N/A	25.000 U	0/4
2,4-Dinitrotoluene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2,6-Dinitrotoluene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2-Butanone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2-Chloronaphthalene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2-Chlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2-Hexanone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2-Methylnaphthalene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
2-Nitroaniline	25.000	25.000	N/A	N/A	N/A	25.000 U	0/4
2-Nitrophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
3,3'-Dichlorobenzidine	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
3-Nitroaniline	25.000	25.000	N/A	N/A	N/A	25.000 U	0/4
4,4-DDD	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
4,4-DDE	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
4,4-DDT	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
4,6-Dinitro-2-Methylpheno	25.000	25.000	N/A	N/A	N/A	25.000 U	0/4
4-Bromophenyl-phenylether	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
4-Chloro-3-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
4-Chloroaniline	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
4-Chlorophenyl-phenylethe	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
4-Methyl-2-Pentanone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
4-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
4-Nitroaniline	25.000	25.000	N/A	N/A	N/A	25.000 U	0/4
4-Nitrophenol	25.000	25.000	N/A	N/A	N/A	25.000 U	0/4
Acenaphthene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Acenaphthylene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Acetone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Actinium-228	10.300	12.800	N/A	N/A	N/A	12.350 U	0/4
Aldrin	0.050	0.050	N/A	N/A	N/A	0.050 U	0/4
Aluminum	N/A	N/A	243.000	431.000	336.750	336.500	4/4
Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Antimony	12.700	12.700	N/A	N/A	N/A	12.700 U	0/4
Aroclor-1016	1.000	1.000	N/A	N/A	N/A	1.000 U	0/4
Aroclor-1221	2.000	2.000	N/A	N/A	N/A	2.000 U	0/4
Aroclor-1232	1.000	1.000	N/A	N/A	N/A	1.000 U	0/4
Aroclor-1242	1.000	1.000	N/A	N/A	N/A	1.000 U	0/4
Aroclor-1248	1.000	1.000	N/A	N/A	N/A	1.000 U	0/4
Aroclor-1254	1.000	1.000	N/A	N/A	N/A	1.000 U	0/4
Aroclor-1260	1.000	1.000	N/A	N/A	N/A	1.000 U	0/4
Arsenic	0.500	0.500	0.700	2.900	1.567	0.900 J	3/4
Barium	N/A	N/A	29.200	70.200	41.525	33.350 J	4/4
Benzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4

Benzo(a)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Benzo(a)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Benzo(b)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Benzo(g,h,i)Perylene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Benzo(k)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Beryllium	0.500	0.500	N/A	N/A	N/A	0.500 U	0/4
Bismuth-214	9.800	10.200	11.200	11.200	11.200	10.100 U	1/4
Bromodichloromethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Bromoform	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Bromomethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Butylbenzylphthalate	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Cadmium	0.700	0.700	N/A	N/A	N/A	0.700 U	0/4
Calcium	N/A	N/A	7320.000	34200.000	19555.000	18350.000	4/4
Carbazole	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Carbon Disulfide	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Carbon Tetrachloride	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Cesium-137	1.500	3.400	N/A	N/A	N/A	2.700 U	0/4
Chlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Chloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Chloroform	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Chloromethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Chromium	2.800	2.800	N/A	N/A	N/A	2.800 U	0/4
Chrysene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Cobalt	5.200	5.200	N/A	N/A	N/A	5.200 U	0/4
Copper	N/A	N/A	2.100	7.100	3.825	3.050 J	4/4
Cyanide	0.900	0.900	0.600	3.100	1.497	0.845 U	3/4
Di-n-Butylphthalate	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Di-n-Octyl Phthalate	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Dibenz(a,h)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Dibenzofuran	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Dibromochloromethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Dieldrin	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
Diethylphthalate	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Dimethylphthalate	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Diss. Aluminum	N/A	N/A	32.500	301.000	211.125	255.500	4/4
Diss. Antimony	12.700	12.700	N/A	N/A	N/A	12.700 U	0/4
Diss. Arsenic	N/A	N/A	0.900	2.700	1.450	1.100 J	4/4
Diss. Barium	N/A	N/A	28.800	48.100	35.325	32.200 J	4/4
Diss. Beryllium	0.500	0.500	N/A	N/A	N/A	0.500 U	0/4
Diss. Cadmium	0.700	0.700	0.730	0.730	0.730	0.700 U	1/4
Diss. Calcium	N/A	N/A	7050.000	32500.000	19012.500	18250.000	4/4
Diss. Chromium	2.800	2.800	N/A	N/A	N/A	2.800 U	0/4
Diss. Cobalt	5.200	5.200	N/A	N/A	N/A	5.200 U	0/4
Diss. Copper	1.100	1.100	1.600	6.200	3.133	1.600 J	3/4
Diss. Iron	N/A	N/A	232.000	1090.000	600.750	540.500	4/4
Diss. Lead	0.500	0.500	0.900	1.500	1.200	0.700 J	2/4
Diss. Magnesium	N/A	N/A	1780.000	4930.000	3012.500	2670.000 J	4/4
Diss. Manganese	N/A	N/A	6.800	29.200	17.750	17.500	4/4
Diss. Mercury	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
Diss. Nickel	7.500	7.500	N/A	N/A	N/A	7.500 U	0/4
Diss. Potassium	N/A	N/A	615.000	1430.000	939.500	856.500 J	4/4
Diss. Selenium	0.700	0.700	N/A	N/A	N/A	0.700 U	0/4
Diss. Silver	1.800	1.800	N/A	N/A	N/A	1.800 U	0/4
Diss. Sodium	N/A	N/A	7760.000	14300.000	10410.000	9790.000	4/4
Diss. Thallium	0.700	0.700	N/A	N/A	N/A	0.700 U	0/4
Diss. Vanadium	1.800	1.800	4.300	4.300	4.300	1.800 U	1/4
Diss. Zinc	N/A	N/A	14.500	21.100	17.800	17.800	4/4
Endosulfan I	0.050	0.050	N/A	N/A	N/A	0.050 U	0/4
Endosulfan II	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
Endosulfan sulfate	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
Endrin	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
Endrin aldehyde	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
Endrin ketone	0.100	0.100	N/A	N/A	N/A	0.100 U	0/4
Ethylbenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Fluorene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Heptachlor	0.050	0.050	N/A	N/A	N/A	0.050 U	0/4
Heptachlor epoxide	0.050	0.050	N/A	N/A	N/A	0.050 U	0/4
Hexachlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Hexachlorobutadiene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Hexachlorocyclopentadiene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4
Hexachloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/4

Indeno(1,2,3-cd)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Iron	N/A	N/A	362.000	1920.000	1218.000	1295.000		4/4
Isophorone	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Lead	N/A	N/A	0.800	8.700	3.250	1.750	J	4/4
Lead-212	7.000	7.700	N/A	N/A	N/A	7.400	U	0/4
Lead-214	8.600	9.300	N/A	N/A	N/A	8.700	U	0/4
Magnesium	N/A	N/A	1800.000	5090.000	3062.500	2680.000	J	4/4
Manganese	N/A	N/A	6.100	28.900	19.775	22.050		4/4
Mercury	0.100	0.100	N/A	N/A	N/A	0.100	U	0/4
Methoxychlor	0.500	0.500	N/A	N/A	N/A	0.500	U	0/4
Methylene Chloride	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
N-Nitroso-Di-n-Propylamin	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
N-Nitrosodiphenylamine (1	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Naphthalene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Nickel	7.500	7.500	N/A	N/A	N/A	7.500	U	0/4
Nitrobenzene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Pentachlorophenol	25.000	25.000	N/A	N/A	N/A	25.000	U	0/4
Phenanthrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Phenol	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Potassium	N/A	N/A	453.000	1530.000	895.500	799.500	J	4/4
Potassium-40	40.700	57.200	N/A	N/A	N/A	44.800	U	0/4
Pyrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Radium-223	22.900	26.100	N/A	N/A	N/A	24.500	U	0/4
Radium-224	60.200	73.900	N/A	N/A	N/A	69.450	U	0/4
Selenium	0.700	0.700	N/A	N/A	N/A	0.700	U	0/4
Silver	1.800	1.800	N/A	N/A	N/A	1.800	U	0/4
Sodium	N/A	N/A	7770.000	14400.000	10435.000	9785.000		4/4
Styrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Tetrachloroethene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Thallium	0.700	0.700	N/A	N/A	N/A	0.700	U	0/4
Thallium-208	3.800	4.800	N/A	N/A	N/A	4.050	U	0/4
Thorium-231	4.500	5.000	N/A	N/A	N/A	4.800	U	0/4
Thorium-234	122.000	136.000	158.000	158.000	158.000	132.000	U	1/4
Toluene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Total Petroleum Hydrocarb	0.060	0.060	N/A	N/A	N/A	0.060	U	0/4
Toxaphene	5.000	5.000	N/A	N/A	N/A	5.000	U	0/4
Trichloroethene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Vanadium	N/A	N/A	2.000	3.400	2.800	2.900	J	4/4
Vinyl Chloride	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Xylene (total)	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
Zinc	N/A	N/A	14.800	38.700	23.150	19.550		4/4
alpha-BHC	0.050	0.050	N/A	N/A	N/A	0.050	U	0/4
alpha-Chlordane	0.050	0.050	N/A	N/A	N/A	0.050	U	0/4
beta-BHC	0.050	0.050	N/A	N/A	N/A	0.050	U	0/4
bis(2-Chloroethoxy)Methan	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
bis(2-Chloroethyl)Ether	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
bis(2-Ethylhexyl)Phthalat	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
cis-1,3-Dichloropropene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
delta-BHC	0.050	0.050	N/A	N/A	N/A	0.050	U	0/4
gamma-BHC (Lindane)	0.050	0.050	N/A	N/A	N/A	0.050	U	0/4
gamma-Chlordane	0.050	0.050	N/A	N/A	N/A	0.050	U	0/4
trans-1,3-Dichloropropene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4

Field Samples Ground Water

Chem.name is chemical name...

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1,2-Tetrachloroethane	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,1,1-Trichloroethane	0.500	500.000	N/A	N/A	N/A	10.000 U	0/214
1,1,2,2-Tetrachloroethane	0.500	500.000	180.000	180.000	180.000	10.000 U	1/214
1,1,2-Trichloroethane	0.500	500.000	14.000	59.000	36.500	10.000 U	2/331
1,1-Dichloroethane	0.500	500.000	1.000	23.000	7.626	6.600	19/333
1,1-Dichloroethene	1.000	500.000	2.400	200.000	22.538	10.000 U	26/322
1,1-Dichloroethylene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,1-Dichloropropene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,2,3-Trichlorobenzene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,2,3-Trichloropropane	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,2,4-Trichlorobenzene	0.500	10.000	18.000	18.000	18.000	10.000 U	1/99
1,2,4-Trimethylbenzene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,2-Dibromo-3-chloropropa	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,2-Dibromoethane (EDB)	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,2-Dichlorobenzene	0.500	10.000	2.300	21.000	9.100	1.000 U	3/218
1,2-Dichloroethane	0.500	500.000	1.300	47.000	9.700	5.600	11/333
1,2-Dichloroethane (total)	5.000	500.000	2.000	1800.000	244.926	10.000 U	54/201
1,2-Dichloropropane	0.500	500.000	N/A	N/A	N/A	10.000 U	0/214
1,3,5-Trimethylbenzene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,3-Dichlorobenzene	0.500	10.000	5.000	5.000	5.000	1.000 U	1/218
1,3-Dichloropropane	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
1,4-Dichlorobenzene	0.500	10.000	4.200	7.000	5.600	1.000 U	2/218
2,2'-oxybis(1-Chloropropa	10.000	10.000	N/A	N/A	N/A	10.000 U	0/48
2,2-Dichloropropane	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
2,4,5-Trichlorophenol	25.000	50.000	N/A	N/A	N/A	25.000 U	0/88
2,4,6-Trichlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
2,4-Dichlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
2,4-Dimethylphenol	10.000	10.000	8.000	160.000	59.000	10.000 U	3/88
2,4-Dinitrophenol	25.000	50.000	N/A	N/A	N/A	25.000 U	0/88
2,4-Dinitrotoluene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
2,6-Dinitrotoluene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
2-Butanone	10.000	1000.000	4.000	100.000	22.250	10.000 U	8/203
2-Chloronaphthalene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
2-Chlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
2-Chlorotoluene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
2-Hexanone	10.000	1000.000	N/A	N/A	N/A	10.000 U	0/203
2-Methylnaphthalene	10.000	10.000	18.000	20.000	19.000	10.000 U	2/88
2-Methylphenol	10.000	10.000	4.000	31.000	21.667	10.000 U	3/88
2-Nitroaniline	25.000	50.000	N/A	N/A	N/A	25.000 U	0/88
2-Nitrophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
3,3'-Dichlorobenzidine	10.000	10.000	N/A	N/A	N/A	10.000 U	0/48
3-Nitroaniline	25.000	50.000	N/A	N/A	N/A	25.000 U	0/88
4,4-DDD	0.100	0.100	0.068	0.068	0.068	0.100 U	1/88
4,4-DDE	0.100	0.100	N/A	N/A	N/A	0.100 U	0/88
4,4-DDT	0.100	0.100	N/A	N/A	N/A	0.100 U	0/88
4,6-Dinitro-2-Methylpheno	25.000	50.000	N/A	N/A	N/A	25.000 U	0/88
4-Bromophenyl-phenylether	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
4-Chloro-3-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
4-Chloroaniline	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
4-Chlorophenyl-phenylethe	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
4-Chlorotoluene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
4-Methyl-2-Pentanone	10.000	200.000	4.000	400.000	152.000	10.000 U	9/203
4-Methylphenol	10.000	10.000	27.000	52.000	43.750	10.000 U	4/88
4-Nitroaniline	25.000	50.000	N/A	N/A	N/A	25.000 U	0/88
4-Nitrophenol	25.000	50.000	N/A	N/A	N/A	25.000 U	0/88
Acenaphthene	10.000	10.000	67.000	67.000	67.000	10.000 U	1/88
Acenaphthylene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
Acetone	10.000	240.000	4.000	12000.000	836.567	10.000 U	30/202
Actinium-228	8.500	15.700	22.600	22.600	22.600	11.500 U	1/48
Aldrin	0.050	0.050	N/A	N/A	N/A	0.050 U	0/88

Alkalinity as CaCO3	N/A	N/A	77.000	104.000	89.250	88.000		4/4
Aluminum	83.400	271.000	32.700	594000.000	78708.907	5720.000		74/88
Ammonia-N	N/A	N/A	0.050	0.560	0.228	0.150		4/4
Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Antimony	10.900	60.000	10.900	39.000	19.352	20.700 U		25/84
Aroclor-1016	0.500	5.000	N/A	N/A	N/A	1.000 UJ		0/88
Aroclor-1221	0.500	10.000	N/A	N/A	N/A	2.000 UJ		0/88
Aroclor-1232	0.500	5.000	N/A	N/A	N/A	1.000 UJ		0/88
Aroclor-1242	0.500	5.000	N/A	N/A	N/A	1.000 UJ		0/88
Aroclor-1248	0.500	1.000	N/A	N/A	N/A	1.000 UJ		0/88
Aroclor-1254	0.500	1.000	N/A	N/A	N/A	1.000 U		0/88
Aroclor-1260	0.500	1.000	N/A	N/A	N/A	1.000 U		0/88
Arsenic	1.600	10.000	1.100	49.000	5.840	3.600 J		75/87
BOD, 5 Day	2.000	2.000	N/A	N/A	N/A	2.000 U		0/4
Barium	200.000	200.000	6.600	2020.000	314.290	131.000 J		87/88
Benzene	0.500	500.000	0.610	1300.000	100.723	5.000 U		35/398
Benzo(a)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Benzo(a)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Benzo(b)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Benzo(g,h,i)Perylene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Benzo(k)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Benzoic Acid	50.000	50.000	5.000	5.000	5.000	50.000 U		1/40
Benzyl Alcohol	10.000	10.000	N/A	N/A	N/A	10.000 U		0/40
Beryllium	0.200	5.000	0.200	25.400	3.444	2.050 J		58/88
Bismuth-214	7.100	11.000	19.400	32.900	26.150	9.900 U		2/48
Bromobenzene	0.500	0.500	N/A	N/A	N/A	0.500 U		0/11
Bromodichloromethane	0.500	500.000	N/A	N/A	N/A	10.000 U		0/333
Bromoform	0.500	500.000	N/A	N/A	N/A	10.000 U		0/214
Bromomethane	0.500	1000.000	N/A	N/A	N/A	10.000 U		0/214
Butylbenzylphthalate	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Cadmium	0.700	5.000	1.200	91.900	14.413	3.800 J		16/88
Calcium	N/A	N/A	3350.000	169000.000	61211.932	51500.000		88/88
Carbazole	10.000	10.000	4.000	4.000	4.000	10.000 U		1/48
Carbon Disulfide	5.000	500.000	2.000	18.000	6.083	10.000 U		12/203
Carbon Tetrachloride	0.500	500.000	2.300	50.000	26.150	10.000 U		2/333
Cesium-137	0.500	4.200	N/A	N/A	N/A	3.000 U		0/48
Chemical Oxygen Demand	N/A	N/A	12.000	164.000	62.500	37.000		4/4
Chloride	N/A	N/A	14.000	148.000	84.250	87.500		4/4
Chlorobenzene	0.500	500.000	0.570	25.000	11.886	10.000 U		7/214
Chlorobromomethane	0.500	0.500	N/A	N/A	N/A	0.500 U		0/11
Chloroethane	0.500	1000.000	N/A	N/A	N/A	10.000 U		0/214
Chloroform	0.500	500.000	1.000	4.000	2.250	10.000 U		4/214
Chloromethane	0.500	1000.000	2.000	10.000	8.000	10.000 U		4/204
Chromium	2.100	16.900	2.200	703.000	108.824	15.050 J		66/88
Chrysene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Cobalt	3.400	50.000	3.600	32.900	11.403	6.100 J		39/88
Color	N/A	N/A	30.000	2000.000	525.000	35.000		4/4
Copper	1.100	25.000	2.200	493.000	51.788	25.000 U		48/88
Cyanide	0.900	10.000	1.800	20.300	4.529	2.000 J		21/88
Di-n-Butylphthalate	10.000	10.000	3.000	3.000	3.000	10.000 U		1/88
Di-n-Octyl Phthalate	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Dibenz(a,h)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Dibenzofuran	10.000	10.000	7.000	45.000	26.000	10.000 U		2/88
Dibromochloromethane	0.500	200.000	N/A	N/A	N/A	10.000 U		0/174
Dibromomethane	0.500	0.500	N/A	N/A	N/A	0.500 U		0/11
Dichlorodifluoromethane	0.500	0.500	N/A	N/A	N/A	0.500 U		0/11
Dieldrin	0.100	0.100	N/A	N/A	N/A	0.100 U		0/88
Diethylphthalate	10.000	10.000	4.000	4.000	4.000	10.000 U		1/88
Dimethylphthalate	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Diss. Aluminum	19.900	211.000	10.700	30800.000	2061.767	187.000 J		45/87
Diss. Antimony	10.900	60.000	10.900	93.100	30.462	20.700 UJ		13/86
Diss. Arsenic	0.800	10.000	1.400	40.500	4.423	2.800 J		56/87
Diss. Barium	200.000	200.000	6.300	993.000	118.436	60.100 J		83/87
Diss. Beryllium	0.200	5.000	0.200	1.900	0.609	0.250 J		14/87
Diss. Cadmium	0.700	5.000	0.700	9.500	3.828	3.400 U		5/87
Diss. Calcium	N/A	N/A	1190.000	166000.000	47694.483	38100.000		87/87
Diss. Chromium	2.100	10.000	2.400	37.400	11.613	3.300 U		15/87
Diss. Cobalt	3.400	50.000	3.900	28.000	7.279	4.100 U		14/87
Diss. Copper	1.100	25.000	2.300	60.200	15.211	6.000 U		9/87
Diss. Iron	5.400	100.000	7.000	109000.000	9540.234	2980.000		79/87
Diss. Lead	0.690	10.300	0.700	40.700	5.536	1.800 UJ		22/87
Diss. Magnesium	N/A	N/A	589.000	116000.000	14790.793	9110.000		87/87

Diss. Manganese	15.000	15.000	1.700	2090.000	108.386	33.800		81/87
Diss. Mercury	0.100	0.200	0.150	0.190	0.168	0.150 U		5/87
Diss. Nickel	3.800	40.000	4.100	174.000	28.947	9.000 U		19/87
Diss. Potassium	5000.000	5000.000	658.000	65900.000	5809.906	2660.000 J		85/87
Diss. Selenium	0.700	19.000	1.900	26.600	5.156	2.000 U		9/83
Diss. Silver	0.000	10.000	1.800	5.200	3.262	2.700 U		8/87
Diss. Sodium	5000.000	5000.000	2340.000	194000.000	36906.279	18000.000		86/87
Diss. Thallium	0.700	10.000	0.890	2.300	1.422	1.000 U		4/87
Diss. Vanadium	1.700	50.000	1.400	43.700	8.400	3.000 U		32/87
Diss. Zinc	1.300	20.000	1.600	480.000	40.667	19.500 J		51/87
Endosulfan I	0.050	0.050	N/A	N/A	N/A	0.050 U		0/88
Endosulfan II	0.100	0.100	N/A	N/A	N/A	0.100 U		0/88
Endosulfan sulfate	0.100	0.100	N/A	N/A	N/A	0.100 U		0/88
Endrin	0.100	0.100	N/A	N/A	N/A	0.100 U		0/88
Endrin aldehyde	0.100	0.100	N/A	N/A	N/A	0.100 U		0/48
Endrin ketone	0.100	0.100	N/A	N/A	N/A	0.100 U		0/88
Ethyl Acetate	50.000	5000.000	11.000	11.000	11.000	50.000 U		1/40
Ethylbenzene	0.500	500.000	3.000	220.000	62.390	5.000 U		10/399
Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Fluorene	10.000	10.000	4.000	46.000	25.000	10.000 U		2/88
Gross Alpha	N/A	N/A	1.000	748.000	90.940	36.900		40/40
Gross Beta	0.300	0.300	1.700	762.000	113.397	51.550		39/40
Hardness as CaCO3	N/A	N/A	100.000	280.000	192.500	195.000		4/4
Heptachlor	0.050	0.050	N/A	N/A	N/A	0.050 U		0/88
Heptachlor epoxide	0.050	0.050	N/A	N/A	N/A	0.050 U		0/88
Hexachlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Hexachlorobutadiene	0.500	10.000	N/A	N/A	N/A	10.000 U		0/99
Hexachlorocyclopentadiene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Hexachloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Indeno(1,2,3-cd)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Iron	100.000	100.000	54.400	240000.000	37266.851	11100.000		84/88
Isophorone	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Isopropylbenzene	0.500	0.500	1.300	1.800	1.550	0.500 U		2/11
Lead	0.500	5.000	1.100	2080.000	54.597	5.000 U		63/85
Lead-212	3.500	8.300	N/A	N/A	N/A	6.800 U		0/48
Lead-214	5.600	10.700	10.900	14.000	12.367	8.150 U		3/48
Magnesium	N/A	N/A	2770.000	107000.000	19858.409	15950.000 J		88/88
Manganese	15.000	15.000	2.100	1600.000	135.331	58.150		84/88
Mercury	0.100	0.200	0.150	2.400	0.584	0.200 UJ		25/88
Methoxychlor	0.500	0.500	N/A	N/A	N/A	0.500 U		0/88
Methylene Chloride	0.500	500.000	1.000	66.000	12.571	10.000 U		7/215
N-Nitroso-Di-n-Propylamin	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
N-Nitrosodiphenylamine (1	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Naphthalene	0.500	10.000	2.000	49.000	26.333	10.000 U		3/99
Nickel	3.800	40.000	5.900	180.000	39.010	13.350 J		52/88
Nitrate/Nitrite-N	0.020	0.020	N/A	N/A	N/A	0.020 U		0/4
Nitrobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Oil & Grease	1.000	1.000	N/A	N/A	N/A	1.000 U		0/4
Pentachlorophenol	25.000	50.000	N/A	N/A	N/A	25.000 U		0/88
Phenanthrene	10.000	10.000	3.000	10.000	6.500	10.000 U		2/88
Phenol	10.000	10.000	8.000	40.000	31.250	10.000 U		4/88
Potassium	1040.000	1460.000	916.000	60400.000	8313.294	4705.000 J		85/88
Potassium-40	30.000	59.200	33.100	56.600	45.675	41.200 U		4/48
Pyrene	10.000	10.000	N/A	N/A	N/A	10.000 U		0/88
Radium-223	2.700	27.800	11.100	11.100	11.100	18.300 U		1/48
Radium-224	18.700	90.000	90.400	90.400	90.400	65.500 U		1/48
Radium-226	N/A	N/A	0.600	27.900	9.345	6.450		40/40
Radium-228	0.300	0.300	0.400	8.500	2.500	1.900		35/40
Selenium	1.700	19.000	0.750	19.000	4.513	2.000 UJ		19/84
Silver	1.700	10.000	1.800	24.500	6.129	3.700 J		14/88
Sodium	N/A	N/A	2150.000	200000.000	36454.545	19150.000 J		88/88
Styrene	0.500	500.000	N/A	N/A	N/A	10.000 U		0/214
Sulfate	N/A	N/A	14.000	75.000	56.000	67.500		4/4
Sulfide	0.500	0.500	0.500	1.200	0.900	0.750		3/4
Tert-Butylbenzene	0.500	0.500	0.510	0.510	0.510	0.500 U		1/11
Tetrachloroethene	0.500	500.000	2.200	36.000	10.456	5.000 U		9/398
Thallium	0.700	10.000	0.920	2.100	1.724	0.905 J		9/84
Thallium-208	2.600	5.000	N/A	N/A	N/A	3.900 U		0/48
Thorium-231	2.600	6.000	N/A	N/A	N/A	4.450 U		0/48
Thorium-234	62.000	231.000	132.000	242.000	187.000	133.000 U		2/48
Toluene	0.500	500.000	1.000	1000.000	75.738	5.000 U		16/399
Total Dissolved Solids	N/A	N/A	144.000	518.000	394.500	458.000		4/4

Total Kjeldahl Nitrogen	N/A	N/A	0.060	2.730	1.435	1.475	4/4
Total Organic Carbon	N/A	N/A	5.400	47.500	19.125	11.800	4/4
Total Petroleum Hydrocarb	0.050	0.070	0.070	1.700	0.266	0.060 U	13/37
Total Phosphate-P	N/A	N/A	0.100	1.250	0.395	0.115	4/4
Total Suspended Solids	N/A	N/A	8.000	1140.000	309.750	45.500	4/4
Toxaphene	1.000	5.000	N/A	N/A	N/A	5.000 UJ	0/88
Trichloroethane	1.000	1.000	3.400	7.200	4.867	1.000 U	3/119
Trichloroethene	0.500	500.000	0.750	4300.000	301.797	5.000 U	73/397
Trichlorofluoromethane	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
Vanadium	1.700	50.000	2.300	806.000	137.654	38.100 J	69/88
Vinyl Acetate	10.000	1000.000	N/A	N/A	N/A	10.000 U	0/40
Vinyl Chloride	0.500	1000.000	2.000	1500.000	83.949	10.000 U	39/213
Xylene (total)	1.500	500.000	1.000	410.000	74.889	10.000 U	9/213
Zinc	7.200	20.000	5.700	5520.000	276.538	33.650 J	76/88
alpha-BHC	0.050	0.050	N/A	N/A	N/A	0.050 U	0/88
alpha-Chlordane	0.050	0.500	N/A	N/A	N/A	0.050 U	0/88
beta-BHC	0.050	0.050	N/A	N/A	N/A	0.050 U	0/88
bis(2-Chloroethoxy)Methan	10.000	10.000	N/A	N/A	N/A	10.000 U	0/88
bis(2-Chloroethyl)Ether	10.000	10.000	38.000	38.000	38.000	10.000 U	1/88
bis(2-Ethylhexyl)Phthalat	10.000	10.000	0.900	71.000	7.151	10.000 U	39/88
cis-1,2-Dichloroethene	0.500	1.000	2.000	4500.000	288.300	1.000 U	21/130
cis-1,3-Dichloropropene	0.500	500.000	N/A	N/A	N/A	10.000 U	0/214
delta-BHC	0.050	0.050	N/A	N/A	N/A	0.050 U	0/88
gamma-BHC (Lindane)	0.050	0.050	N/A	N/A	N/A	0.050 U	0/88
gamma-Chlordane	0.050	0.500	N/A	N/A	N/A	0.050 U	0/88
m/p-Xylene	1.000	1.000	8.300	800.000	404.150	1.000 U	2/184
n-Butyl Acetate	50.000	5000.000	6.000	6.000	6.000	50.000 U	1/40
n-Butylbenzene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
n-Propylbenzene	0.500	0.500	0.530	0.530	0.530	0.500 U	1/11
o-Xylene	1.000	1.000	26.000	26.000	26.000	1.000 U	1/184
p-Cymene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
sec-Butylbenzene	0.500	0.500	N/A	N/A	N/A	0.500 U	0/11
trans-1,2-Dichloroethene	0.500	1.000	3.000	870.000	123.000	1.000 U	10/130
trans-1,3-Dichloropropene	0.500	500.000	N/A	N/A	N/A	10.000 U	0/214

Field Samples Surface Soils

Chem.name is chemical name...

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	5.000	920.000	N/A	N/A	N/A	6.000 U	0/71
1,1,2,2-Tetrachloroethane	5.000	920.000	N/A	N/A	N/A	6.000 U	0/71
1,1,2-Trichloroethane	5.000	920.000	N/A	N/A	N/A	6.000 U	0/71
1,1-Dichloroethane	5.000	920.000	N/A	N/A	N/A	6.000 U	0/71
1,1-Dichloroethene	5.000	920.000	N/A	N/A	N/A	6.000 U	0/71
1,2,3,4,6,7,8-HpCDD	0.380	1300.000	0.740	2200.000	585.363	61.400 J	17/31
1,2,3,4,6,7,8-HpCDF	0.700	1600.000	250.000	1700.000	586.000	23.000 U	5/31
1,2,3,4,7,8,9-HpCDF	0.930	1600.000	N/A	N/A	N/A	23.000 U	0/31
1,2,3,4,7,8-HxCDD	1.750	630.000	N/A	N/A	N/A	22.000 U	0/31
1,2,3,4,7,8-HxCDF	2.420	470.000	N/A	N/A	N/A	11.000 U	0/31
1,2,3,6,7,8-HxCDD	1.390	630.000	N/A	N/A	N/A	22.000 U	0/31
1,2,3,6,7,8-HxCDF	2.280	470.000	0.370	0.370	0.370	11.000 U	1/31
1,2,3,7,8,9-HxCDD	1.470	630.000	N/A	N/A	N/A	22.000 U	0/31
1,2,3,7,8,9-HxCDF	3.120	470.000	1.020	1.020	1.020	11.000 U	1/31
1,2,3,7,8-PeCDD	2.870	420.000	0.800	0.800	0.800	18.000 U	1/31
1,2,3,7,8-PeCDF	0.720	120.000	N/A	N/A	N/A	5.620 UJ	0/31
1,2,4-Trichlorobenzene	340.000	28000.000	20.000	800.000	183.571	575.000 U	7/122
1,2-Dichlorobenzene	96.000	28000.000	25.000	150.000	57.667	565.000 U	6/122
1,2-Dichloroethane	5.000	920.000	N/A	N/A	N/A	6.000 U	0/71
1,2-Dichloroethene (total)	5.000	920.000	2.000	22.000	9.250	6.000 U	4/71
1,2-Dichloropropane	5.000	920.000	N/A	N/A	N/A	6.000 U	0/71
1,3-Dichlorobenzene	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
1,4-Dichlorobenzene	340.000	28000.000	23.000	23.000	23.000	720.000 U	1/122
2,2'-oxybis(1-Chloropropa	340.000	3800.000	390.000	390.000	390.000	410.000 U	1/60
2,3,4,6,7,8-HxCDF	2.500	470.000	0.360	0.360	0.360	11.000 U	1/31
2,3,4,7,8-PeCDF	0.610	120.000	0.110	0.110	0.110	5.600 U	1/31
2,3,7,8-TCDD	3.390	220.000	N/A	N/A	N/A	4.500 U	0/31
2,3,7,8-TCDF	1.780	170.000	N/A	N/A	N/A	5.900 U	0/31
2,4,5-Trichlorophenol	340.000	140000.000	N/A	N/A	N/A	1850.000 U	0/122
2,4,6-Trichlorophenol	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
2,4-Dichlorophenol	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
2,4-Dimethylphenol	340.000	28000.000	35.000	230.000	78.111	440.000 U	9/122
2,4-Dinitrophenol	820.000	140000.000	N/A	N/A	N/A	1900.000 U	0/122
2,4-Dinitrotoluene	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
2,6-Dinitrotoluene	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
2-Butanone	10.000	1800.000	N/A	N/A	N/A	12.000 U	0/60
2-Chloronaphthalene	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
2-Chlorophenol	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
2-Hexanone	10.000	1800.000	N/A	N/A	N/A	11.000 U	0/71
2-Methylnaphthalene	340.000	3800.000	33.000	6500.000	951.467	430.000 U	15/122
2-Methylphenol	51.000	28000.000	23.000	300.000	90.000	565.000 U	10/122
2-Nitroaniline	340.000	140000.000	N/A	N/A	N/A	1900.000 U	0/122
2-Nitrophenol	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
3,3'-Dichlorobenzidine	370.000	7600.000	700.000	780.000	740.000	740.000 U	2/60
3-Nitroaniline	390.000	140000.000	N/A	N/A	N/A	1900.000 U	0/122
4,4-DDD	4.000	40000.000	7.600	1100.000	152.860	33.000 U	10/143
4,4-DDE	2.800	15000.000	1.600	130.000	26.744	14.000 U	43/143
4,4-DDT	4.000	43000.000	5.700	20000.000	1460.496	41.000 U	25/141
4,6-Dinitro-2-Methylpheno	820.000	140000.000	1900.000	1900.000	1900.000	1900.000 U	1/122
4-Bromophenyl-phenylether	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
4-Chloro-3-Methylphenol	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
4-Chloroaniline	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
4-Chlorophenyl-phenylethe	340.000	28000.000	N/A	N/A	N/A	720.000 U	0/122
4-Methyl-2-Pentanone	10.000	1800.000	N/A	N/A	N/A	11.000 U	0/71
4-Methylphenol	340.000	28000.000	46.000	150.000	98.000	715.000 U	2/122
4-Nitroaniline	820.000	140000.000	N/A	N/A	N/A	1900.000 U	0/122
4-Nitrophenol	820.000	140000.000	82.000	82.000	82.000	1850.000 U	1/122
Acenaphthene	340.000	28000.000	55.000	2000.000	427.500	700.000 U	6/122
Acenaphthylene	340.000	28000.000	31.000	160.000	84.000	700.000 U	4/122
Acetone	10.000	55.000	7.000	1800.000	576.833	11.000 U	6/71

Actinium-228	0.142	0.142	0.160	0.976	0.569	0.597		10/11
Aldrin	2.100	15000.000	3.500	3.500	3.500	12.000	U	1/141
Aluminum	N/A	N/A	104.950	10500.000	1811.657	1480.000		73/73
Anthracene	340.000	28000.000	20.000	3200.000	295.167	430.000	U	18/122
Antimony	4.100	60.000	4.300	7.200	5.583	60.000	U	12/73
Aroclor-1016	33.000	170000.000	N/A	N/A	N/A	150.000	U	0/160
Aroclor-1221	82.000	430000.000	N/A	N/A	N/A	380.000	U	0/160
Aroclor-1232	40.000	430000.000	N/A	N/A	N/A	370.000	U	0/160
Aroclor-1242	33.000	170000.000	3700.000	18000.000	10850.000	150.000	U	2/160
Aroclor-1248	16.000	86000.000	1100.000	26000.000	11875.000	150.000	U	8/160
Aroclor-1254	16.000	86000.000	36.000	3700.000	784.563	83.000	U	16/160
Aroclor-1260	17.000	20000.000	53.000	260000.000	5759.018	335.000		114/160
Arsenic	0.490	10.000	0.170	19.600	1.669	0.720	J	60/73
Barium	N/A	N/A	1.500	3860.000	74.630	12.400	J	73/73
Benzene	5.000	920.000	22.000	100.000	55.000	6.000	U	3/71
Benzo(a)Anthracene	340.000	28000.000	18.000	7600.000	422.519	410.000	U	54/122
Benzo(a)Pyrene	340.000	28000.000	24.000	7800.000	406.852	410.000	U	54/122
Benzo(b)Fluoranthene	340.000	28000.000	20.000	14000.000	783.597	430.000	U	62/122
Benzo(g,h,i)Perylene	340.000	28000.000	28.000	3400.000	301.171	405.000	U	41/122
Benzo(k)Fluoranthene	340.000	28000.000	20.000	14000.000	830.696	535.000	Z	56/122
Benzoic Acid	1600.000	140000.000	140.000	1800.000	703.333	3600.000	U	3/62
Benzyl Alcohol	340.000	28000.000	N/A	N/A	N/A	740.000	U	0/62
Beryllium	0.070	5.000	0.160	1.900	0.623	5.000	U	12/73
Bismuth-212	0.216	0.527	0.337	1.040	0.647	0.495		7/11
Bismuth-214	N/A	N/A	0.282	2.360	0.816	0.528		11/11
Bromodichloromethane	5.000	920.000	N/A	N/A	N/A	6.000	U	0/71
Bromoform	5.000	920.000	N/A	N/A	N/A	6.000	U	0/71
Bromomethane	10.000	1800.000	8.000	8.000	8.000	11.000	U	1/71
Butylbenzylphthalate	340.000	28000.000	21.000	790.000	202.467	700.000	U	15/122
Cadmium	0.790	5.600	0.410	164.000	11.705	3.600		90/117
Calcium	N/A	N/A	104.000	356000.000	35648.149	2970.000	J	73/73
Carbazole	340.000	1600.000	22.000	870.000	174.778	405.000	U	9/60
Carbon Disulfide	5.000	920.000	1.000	5.000	2.364	6.000	U	11/71
Carbon Tetrachloride	5.000	920.000	N/A	N/A	N/A	6.000	U	0/71
Cesium-134	0.025	0.225	N/A	N/A	N/A	0.101	U	0/11
Cesium-137	0.019	0.115	0.066	0.066	0.066	0.063	U	1/11
Chlorobenzene	5.000	920.000	N/A	N/A	N/A	6.000	U	0/71
Chloroethane	10.000	1800.000	N/A	N/A	N/A	11.000	U	0/71
Chloroform	5.000	920.000	N/A	N/A	N/A	6.000	U	0/71
Chloromethane	10.000	1800.000	N/A	N/A	N/A	11.000	U	0/71
Chromium	10.000	10.000	0.470	1777.000	61.793	12.450		118/122
Chrysene	340.000	28000.000	26.000	7900.000	462.154	410.000	U	52/122
Cobalt	0.620	50.000	1.000	6.500	2.225	50.000	U	24/73
Copper	2.800	25.000	0.730	710.000	34.150	5.400	J	67/73
Cyanide	0.210	10.000	0.180	10.000	4.109	10.000	U	18/75
Di-n-Butylphthalate	340.000	28000.000	22.000	230.000	77.333	490.000	U	18/122
Di-n-Octyl Phthalate	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
Dibenz(a,h)Anthracene	340.000	28000.000	23.000	1300.000	164.318	420.000	U	22/122
Dibenzofuran	340.000	28000.000	23.000	640.000	144.000	700.000	U	6/122
Dibromochloromethane	12.000	14.000	N/A	N/A	N/A	12.000	U	0/11
Dieldrin	1.300	7000.000	1.400	39.000	10.417	5.800	U	6/141
Diethylphthalate	340.000	28000.000	140.000	140.000	140.000	720.000	U	1/122
Dimethylphthalate	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
Endosulfan I	2.100	22000.000	N/A	N/A	N/A	18.000	U	0/141
Endosulfan II	2.800	15000.000	N/A	N/A	N/A	12.000	U	0/141
Endosulfan sulfate	4.000	43000.000	N/A	N/A	N/A	35.000	U	0/141
Endrin	4.000	22000.000	N/A	N/A	N/A	18.000	U	0/141
Endrin aldehyde	4.000	21.000	N/A	N/A	N/A	4.200	U	0/11
Endrin ketone	4.000	43000.000	N/A	N/A	N/A	35.000	U	0/141
Ethyl Acetate	52.000	9200.000	N/A	N/A	N/A	56.500	U	0/60
Ethylbenzene	5.000	920.000	4.000	4.000	4.000	6.000	U	1/71
Fluoranthene	340.000	28000.000	23.000	18000.000	675.391	410.000	U	64/122
Fluorene	340.000	28000.000	42.000	1600.000	347.333	700.000	U	6/122
Gross Alpha	0.300	0.300	0.000	71.000	5.163	3.200		107/109
Gross Beta	0.400	0.400	0.300	72.000	5.151	4.200	J +-3.5	107/109
Heptachlor	2.100	11000.000	350.000	350.000	350.000	9.000	U	1/141
Heptachlor epoxide	2.100	22000.000	350.000	350.000	350.000	18.000	U	1/141
Hexachlorobenzene	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
Hexachlorobutadiene	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
Hexachlorocyclopentadiene	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
Hexachloroethane	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
HpCDDs (total)	46.000	1300.000	80.000	4100.000	1922.000	560.000		10/17

HpCDFs (total)	18.000	1600.000	360.000	3000.000	1265.000	120.000	U	6/17
HxCDDs (total)	18.000	630.000	97.000	550.000	306.750	48.000	U	4/17
HxCDFs (total)	9.400	470.000	130.000	270.000	180.000	120.000	U	4/17
Indeno(1,2,3-cd)Pyrene	340.000	28000.000	20.000	3900.000	282.979	400.000	U	47/122
Iron	N/A	N/A	69.240	42900.000	3764.168	1540.000		73/73
Isophorone	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
Lead	0.260	37.500	1.300	2990.000	217.110	73.350		114/122
Lead-212	0.112	0.112	0.187	1.000	0.473	0.570		10/11
Lead-214	N/A	N/A	0.465	2.710	0.937	0.600		11/11
Magnesium	N/A	N/A	24.490	90700.000	2761.483	192.000	J	73/73
Manganese	N/A	N/A	2.000	365.000	37.639	19.700		73/73
Mercury	0.040	0.300	0.030	12.300	0.460	0.200	U	75/122
Methoxychlor	16.000	86000.000	N/A	N/A	N/A	72.000	U	0/141
Methylene Chloride	5.000	1900.000	2.000	28.000	8.059	6.000	U	17/71
N-Nitroso-Di-n-Propylamin	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
N-Nitrosodiphenylamine (1	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
Naphthalene	340.000	28000.000	37.000	220.000	89.364	440.000	U	11/122
Nickel	1.400	40.000	1.400	460.000	20.362	9.750	J	69/122
Nitrobenzene	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
OCDD	0.480	540.000	1.270	17000.000	3229.287	250.000	U	24/31
OCDF	0.790	3800.000	1.240	2900.000	1660.248	100.000	U	5/31
PeCDDs (total)	18.000	420.000	N/A	N/A	N/A	26.000	U	0/17
PeCDFs (total)	4.500	120.000	N/A	N/A	N/A	20.000	U	0/17
Pentachlorophenol	820.000	140000.000	N/A	N/A	N/A	1900.000	U	0/122
Phenanthrene	340.000	28000.000	17.000	19000.000	783.263	420.000	U	38/122
Phenol	340.000	28000.000	36.000	340.000	116.571	565.000	U	7/122
Potassium	74.400	5000.000	66.000	682.000	191.559	484.000	J	29/73
Potassium-40	N/A	N/A	1.360	4.120	2.559	3.150		11/11
Proactinium-231	1.320	3.170	N/A	N/A	N/A	1.730	U	0/11
Pyrene	340.000	28000.000	25.000	19000.000	659.238	405.000	U	63/122
Radium-226	0.300	0.300	0.000	40.200	1.134	0.700	J +-0.5	104/109
Radium-228	0.300	0.300	0.000	2.700	0.683	0.300	U	60/109
Selenium	0.110	5.000	0.110	6.600	0.817	0.640	U	25/69
Silver	0.240	40.000	0.360	18.600	2.832	0.710	U	26/69
Sodium	17.300	5000.000	52.800	482.000	129.548	116.000	J	56/73
Styrene	5.000	920.000	2.000	2.000	2.000	6.000	U	1/71
TCDDs (total)	4.200	220.000	N/A	N/A	N/A	9.100	U	0/17
TCDFs (total)	3.900	170.000	60.000	130.000	89.667	16.000	U	3/17
Tetrachloroethene	5.000	920.000	N/A	N/A	N/A	6.000	U	0/71
Thallium	0.200	10.000	0.260	0.750	0.412	10.000	U	5/73
Thallium-208	0.050	0.051	0.133	0.432	0.212	0.168		9/11
Thorium-227	0.469	1.100	N/A	N/A	N/A	0.610	U	0/11
Thorium-228	5.070	6.730	9.170	11.600	9.983	6.130	U	3/11
Thorium-234	1.340	1.680	1.860	7.170	3.512	1.860		6/11
Toluene	5.000	14.000	1.000	400.000	58.846	6.000	U	13/71
Total Organic Carbon	N/A	N/A	0.530	6.100	1.864	1.900	J	49/49
Total Petroleum Hydrocarb	2.000	2.200	6.500	6.500	6.500	2.100	U	1/11
Toxaphene	69.000	360000.000	N/A	N/A	N/A	300.000	U	0/141
Toxic Equivalents Concent	0.000	0.000	0.001	0.743	0.124	0.015		10/11
Trichloroethene	5.000	920.000	4.000	19.000	11.500	6.000	U	2/71
Uranium-235	0.065	0.174	0.107	0.623	0.257	0.174	U	8/11
Vanadium	N/A	N/A	0.770	31.100	5.835	4.700	J	73/73
Vinyl Acetate	10.000	1800.000	N/A	N/A	N/A	11.000	U	0/60
Vinyl Chloride	10.000	1800.000	N/A	N/A	N/A	11.000	U	0/71
Xylene (total)	5.000	14.000	2.000	400.000	53.625	6.000	U	16/71
Zinc	9.600	13.400	0.860	8190.000	347.893	86.050	J	120/122
alpha-BHC	2.100	11000.000	2.900	2.900	2.900	9.000	U	1/141
alpha-Chlordane	2.100	18000.000	4.800	480.000	77.871	15.000	U	7/143
beta-BHC	2.100	22000.000	N/A	N/A	N/A	18.000	U	0/141
bis(2-Chloroethoxy)Methan	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
bis(2-Chloroethyl)Ether	340.000	28000.000	N/A	N/A	N/A	720.000	U	0/122
bis(2-Ethylhexyl)Phthalat	340.000	3800.000	42.000	4000.000	643.409	420.000	U	44/122
cis-1,3-Dichloropropene	5.000	920.000	N/A	N/A	N/A	6.000	U	0/71
delta-BHC	2.100	22000.000	N/A	N/A	N/A	18.000	U	0/141
gamma-BHC (Lindane)	2.100	15000.000	N/A	N/A	N/A	12.000	U	0/141
gamma-Chlordane	2.100	18000.000	4.000	970.000	199.600	15.000	U	5/142
n-Butyl Acetate	52.000	9200.000	N/A	N/A	N/A	56.500	U	0/60
trans-1,3-Dichloropropene	5.000	920.000	N/A	N/A	N/A	6.000	U	0/71

Field Samples Soil Borings

Chem.name is chemical name...

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	5.000	27000.000	1.000	150.000	16.442	6.000 U	43/107
1,1,2,2-Tetrachloroethane	5.000	27000.000	11.000	1800.000	905.500	11.000 U	2/107
1,1,2-Trichloroethane	5.000	27000.000	11.000	11.000	11.000	11.000 U	1/107
1,1-Dichloroethane	5.000	27000.000	190.000	960.000	575.000	11.000 U	2/107
1,1-Dichloroethene	5.000	27000.000	N/A	N/A	N/A	11.000 U	0/107
1,2,3,4,6,7,8-HpCDD	86.000	600.000	580.000	2200.000	1264.000	590.000 U	5/10
1,2,3,4,6,7,8-HpCDF	50.000	710.000	440.000	440.000	440.000	365.000 U	1/10
1,2,3,4,7,8,9-HpCDF	50.000	710.000	N/A	N/A	N/A	200.000 U	0/10
1,2,3,4,7,8-HxCDD	37.000	490.000	N/A	N/A	N/A	145.000 U	0/10
1,2,3,4,7,8-HxCDF	25.000	290.000	N/A	N/A	N/A	83.000 U	0/10
1,2,3,6,7,8-HxCDD	37.000	490.000	N/A	N/A	N/A	145.000 U	0/10
1,2,3,6,7,8-HxCDF	25.000	290.000	N/A	N/A	N/A	83.000 U	0/10
1,2,3,7,8,9-HxCDD	37.000	490.000	N/A	N/A	N/A	145.000 U	0/10
1,2,3,7,8,9-HxCDF	25.000	290.000	N/A	N/A	N/A	73.000 U	0/10
1,2,3,7,8-PeCDD	29.000	320.000	N/A	N/A	N/A	45.000 U	0/10
1,2,3,7,8-PeCDF	9.900	110.000	N/A	N/A	N/A	27.500 U	0/10
1,2,4-Trichlorobenzene	340.000	76000.000	20.000	25000.000	3709.429	430.000 U	7/107
1,2-Dichlorobenzene	34.000	32000.000	24.000	97000.000	8618.526	400.000 U	19/107
1,2-Dichloroethane	5.000	27000.000	54.000	54.000	54.000	11.000 U	1/107
1,2-Dichloroethene (total)	5.000	27000.000	1.000	14000.000	2283.455	11.000 UJ	11/107
1,2-Dichloropropane	5.000	27000.000	11.000	11.000	11.000	11.000 U	1/107
1,3-Dichlorobenzene	340.000	76000.000	50.000	6400.000	1495.556	430.000 U	9/107
1,4-Dichlorobenzene	54.000	76000.000	24.000	7600.000	1226.923	410.000 U	13/107
2,2'-oxybis(1-Chloropropa	340.000	76000.000	N/A	N/A	N/A	390.000 U	0/57
2,3,4,6,7,8-HxCDF	25.000	290.000	N/A	N/A	N/A	73.000 U	0/10
2,3,4,7,8-PeCDF	9.900	110.000	N/A	N/A	N/A	27.500 U	0/10
2,3,7,8-TCDD	9.500	97.000	N/A	N/A	N/A	17.500 U	0/10
2,3,7,8-TCDF	8.300	97.000	N/A	N/A	N/A	28.000 U	0/10
2,4,5-Trichlorophenol	340.000	180000.000	N/A	N/A	N/A	2000.000 U	0/107
2,4,6-Trichlorophenol	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
2,4-Dichlorophenol	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
2,4-Dimethylphenol	340.000	76000.000	24.000	74000.000	5701.429	690.000 U	14/107
2,4-Dinitrophenol	360.000	180000.000	N/A	N/A	N/A	2000.000 U	0/107
2,4-Dinitrotoluene	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
2,6-Dinitrotoluene	340.000	76000.000	N/A	N/A	N/A	730.000 UJ	0/107
2-Butanone	10.000	27000.000	2.000	9400.000	1071.444	12.000 U	9/77
2-Chloronaphthalene	320.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
2-Chlorophenol	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
2-Hexanone	10.000	27000.000	11.000	11.000	11.000	12.000 UJ	1/106
2-Methylnaphthalene	31.000	3500.000	20.000	45000.000	3533.429	395.000 U	28/106
2-Methylphenol	340.000	76000.000	23.000	450000.000	41642.455	650.000 J	11/107
2-Nitroaniline	340.000	180000.000	N/A	N/A	N/A	2000.000 U	0/107
2-Nitrophenol	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
3,3'-Dichlorobenzidine	250.000	150000.000	710.000	710.000	710.000	780.000 U	1/57
3-Nitroaniline	370.000	180000.000	N/A	N/A	N/A	2000.000 U	0/107
4,4-DDD	8.000	9100.000	18.000	350.000	175.250	82.000 U	4/49
4,4-DDE	2.900	3300.000	7.900	110.000	62.980	31.000 U	5/49
4,4-DDT	8.600	9900.000	9.400	1500.000	501.925	89.000 U	8/49
4,6-Dinitro-2-Methylpheno	820.000	180000.000	N/A	N/A	N/A	2000.000 U	0/107
4-Bromophenyl-phenylether	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
4-Chloro-3-Methylphenol	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
4-Chloroaniline	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
4-Chlorophenyl-phenylethe	340.000	76000.000	N/A	N/A	N/A	720.000 U	0/107
4-Methyl-2-Pentanone	10.000	27000.000	11.000	11.000	11.000	12.000 UJ	1/107
4-Methylphenol	340.000	76000.000	29.000	100000.000	21893.800	710.000 U	5/107
4-Nitroaniline	360.000	180000.000	N/A	N/A	N/A	2000.000 U	0/107
4-Nitrophenol	370.000	180000.000	N/A	N/A	N/A	2000.000 U	0/107
Acenaphthene	340.000	76000.000	29.000	2600.000	429.909	680.000 J	11/107
Acenaphthylene	340.000	76000.000	24.000	280.000	103.000	690.000 U	8/107
Acetone	10.000	27000.000	2.000	42000.000	6519.111	12.000 U	9/107

Aldrin	2.900	3300.000	2.300	1100.000	600.460	30.000	U	5/49
Aluminum	N/A	N/A	177.000	18800.000	3133.612	2400.000		49/49
Anthracene	22.000	76000.000	18.000	3900.000	460.500	390.000	U	24/107
Antimony	60.000	60.000	3.800	108.000	14.176	60.000	U	17/49
Aroclor-1016	34.000	40000.000	N/A	N/A	N/A	360.000	U	0/49
Aroclor-1221	86.000	99000.000	N/A	N/A	N/A	890.000	U	0/49
Aroclor-1232	86.000	99000.000	N/A	N/A	N/A	890.000	U	0/49
Aroclor-1242	34.000	40000.000	N/A	N/A	N/A	360.000	U	0/49
Aroclor-1248	18.000	8000.000	140.000	270000.000	28110.769	370.000	U	13/49
Aroclor-1254	17.000	4000.000	820.000	78000.000	14590.000	180.000	U	8/49
Aroclor-1260	17.000	20000.000	75.000	10000.000	2158.158	240.000		19/49
Arsenic	10.000	10.000	0.130	10.800	3.029	3.100		36/49
Barium	200.000	200.000	2.100	565.000	95.565	25.500	J	48/49
Benzene	5.000	27000.000	1.000	1800.000	270.556	11.000	U	9/107
Benzo(a)Anthracene	170.000	76000.000	19.000	13000.000	825.922	390.000	U	51/107
Benzo(a)Pyrene	140.000	76000.000	22.000	11000.000	759.036	380.000	U	56/107
Benzo(b)Fluoranthene	350.000	76000.000	23.000	30000.000	1388.567	430.000	U	60/107
Benzo(g,h,i)Perylene	100.000	76000.000	22.000	3500.000	384.265	370.000	U	49/107
Benzo(k)Fluoranthene	350.000	76000.000	23.000	30000.000	1342.467	430.000	JZ	60/107
Benzoic Acid	1700.000	19000.000	220.000	160000.000	54973.333	3700.000	U	3/50
Benzyl Alcohol	350.000	20000.000	N/A	N/A	N/A	765.000	U	0/50
Beryllium	0.090	10.000	0.100	0.160	0.132	5.000	U	5/49
Bromodichloromethane	5.000	27000.000	1.000	11.000	4.333	11.000	U	3/107
Bromoform	5.000	27000.000	11.000	11.000	11.000	11.000	U	1/100
Bromomethane	10.000	27000.000	3.000	3.000	3.000	12.000	U	1/107
Butylbenzylphthalate	340.000	76000.000	23.000	400.000	189.000	720.000	U	7/107
Cadmium	0.800	9.000	0.500	157.000	16.996	5.100	J	73/106
Calcium	N/A	N/A	118.000	49300.000	6332.143	2170.000		49/49
Carbazole	34.000	76000.000	21.000	2000.000	350.769	380.000	U	13/57
Carbon Disulfide	5.000	27000.000	1.000	3.000	2.200	11.000	U	5/107
Carbon Tetrachloride	5.000	27000.000	N/A	N/A	N/A	11.000	U	0/107
Chlorobenzene	4.000	27000.000	1.000	140000.000	9867.471	11.000	U	17/107
Chloroethane	10.000	27000.000	N/A	N/A	N/A	12.000	UJ	0/107
Chloroform	5.000	27000.000	4.000	180.000	43.200	11.000	U	5/107
Chloromethane	10.000	27000.000	N/A	N/A	N/A	12.000	U	0/107
Chromium	2.400	10.000	1.100	473.000	51.864	21.700	J	104/106
Chrysene	99.000	76000.000	22.000	12000.000	823.182	380.000	U	55/107
Cobalt	50.000	50.000	1.200	9.200	3.754	50.000	U	24/49
Copper	25.000	25.000	0.440	5840.000	261.450	25.000	U	45/49
Cyanide	10.000	10.000	0.180	0.910	0.444	10.000	U	13/49
Di-n-Butylphthalate	340.000	76000.000	23.000	670.000	168.600	670.000	J	10/107
Di-n-Octyl Phthalate	340.000	76000.000	37.000	350.000	174.250	720.000	U	4/107
Dibenz(a,h)Anthracene	47.000	76000.000	19.000	1400.000	229.667	390.000	U	30/107
Dibenzofuran	340.000	76000.000	57.000	2500.000	444.000	470.000	J	9/107
Dibromochloromethane	10.000	27000.000	11.000	11.000	11.000	12.000	UJ	1/57
Dieldrin	1.400	1600.000	19.000	33.000	26.000	15.000	U	2/49
Diethylphthalate	340.000	76000.000	91.000	220.000	155.500	710.000	U	2/107
Dimethylphthalate	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
Endosulfan I	4.300	4900.000	N/A	N/A	N/A	44.000	U	0/49
Endosulfan II	2.900	3300.000	N/A	N/A	N/A	30.000	U	0/49
Endosulfan sulfate	8.600	9900.000	N/A	N/A	N/A	89.000	U	0/49
Endrin	4.300	4900.000	14.000	1200.000	686.800	44.000	U	5/49
Endrin ketone	8.600	9900.000	N/A	N/A	N/A	89.000	U	0/49
Ethyl Acetate	53.000	7700.000	N/A	N/A	N/A	58.000	U	0/50
Ethylbenzene	5.000	11000.000	4.000	40000.000	6953.000	11.000	U	10/107
Fluoranthene	59.000	76000.000	27.000	21000.000	1597.833	380.000	U	60/107
Fluorene	340.000	76000.000	57.000	1300.000	388.364	410.000	U	11/107
Gross Alpha	N/A	N/A	0.000	23.000	4.958	2.700		99/99
Gross Beta	0.400	0.400	0.400	32.200	5.028	3.200	J +-3.4	92/99
Heptachlor	2.200	2500.000	3.900	3.900	3.900	22.000	U	1/49
Heptachlor epoxide	4.300	4900.000	N/A	N/A	N/A	44.000	U	0/49
Hexachlorobenzene	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
Hexachlorobutadiene	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
Hexachlorocyclopentadiene	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
Hexachloroethane	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
HpCDDs (total)	86.000	600.000	150.000	6900.000	2262.857	900.000		7/10
HpCDFs (total)	50.000	710.000	540.000	1200.000	870.000	365.000	U	2/10
HxCDDs (total)	37.000	490.000	520.000	690.000	605.000	230.000	U	2/10
HxCDFs (total)	25.000	290.000	650.000	650.000	650.000	83.000	U	1/10
Indeno(1,2,3-cd)Pyrene	78.000	76000.000	18.000	3600.000	457.180	380.000	U	50/107
Iron	N/A	N/A	139.000	79800.000	10841.408	4930.000		49/49
Isophorone	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107

Lead	4.900	13.600	1.900	4100.000	289.288	97.950		104/106
Magnesium	N/A	N/A	20.100	1880.000	331.029	201.000	J	49/49
Manganese	5.700	5.700	1.400	789.000	87.931	15.900		48/49
Mercury	0.100	1.000	0.030	9.500	0.700	0.200	U	63/106
Methoxychlor	17.000	20000.000	N/A	N/A	N/A	180.000	U	0/49
Methylene Chloride	5.000	27000.000	27000.000	27000.000	27000.000	11.000	U	1/107
N-Nitroso-Di-n-Propylamin	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
N-Nitrosodiphenylamine (1	340.000	76000.000	190.000	5500.000	1420.000	710.000	U	7/107
Naphthalene	29.000	19000.000	25.000	27000.000	2454.654	390.000	U	26/107
Nickel	5.700	40.000	2.100	185.000	24.641	13.900	J	58/106
Nitrobenzene	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
OCDD	200.000	2200.000	870.000	13000.000	5732.857	2700.000		7/10
OCDF	230.000	2500.000	1200.000	1200.000	1200.000	565.000	U	1/10
PeCDDs (total)	29.000	320.000	N/A	N/A	N/A	45.000	U	0/10
PeCDFs (total)	9.900	110.000	120.000	120.000	120.000	27.500	U	1/10
Pentachlorophenol	360.000	180000.000	N/A	N/A	N/A	2000.000	U	0/107
Phenanthrene	140.000	76000.000	24.000	16000.000	1146.949	400.000	J	39/107
Phenol	340.000	76000.000	69.000	110000.000	13977.556	670.000	J	9/107
Potassium	5000.000	5000.000	66.300	481.000	165.197	224.000	J	32/49
Pyrene	20.000	76000.000	29.000	20000.000	1134.983	380.000	U	58/107
Radium-226	0.400	0.400	0.100	3.900	0.702	0.600	J +-0.4	98/99
Radium-228	0.300	0.300	0.000	2.100	0.687	0.400	J +-0.8	64/99
Selenium	0.120	5.000	0.120	0.520	0.212	0.310	J	28/49
Silver	0.240	10.000	0.290	42.200	5.954	4.200	J	28/49
Sodium	5000.000	5000.000	68.500	388.000	134.325	109.000	J	48/49
Styrene	5.000	7500.000	11.000	27000.000	9970.333	11.000	U	3/107
TCDDs (total)	9.500	97.000	N/A	N/A	N/A	17.500	U	0/10
TCDFs (total)	8.300	97.000	84.000	84.000	84.000	28.000	U	1/10
Tetrachloroethene	5.000	27000.000	2.000	510.000	100.429	11.000	U	7/107
Thallium	0.210	10.000	0.210	0.270	0.230	10.000	U	3/49
Toluene	5.000	27000.000	1.000	490000.000	10574.180	6.000	U	50/107
Total Organic Carbon	N/A	N/A	0.039	5.200	1.339	1.100		57/57
Total Petroleum Hydrocarb	49.000	49.000	250.000	64000.000	25834.286	22000.000		7/8
Toxaphene	71.000	81000.000	N/A	N/A	N/A	730.000	U	0/49
Trichloroethene	5.000	27000.000	1.000	84000.000	4548.895	10.000	J	19/107
Vanadium	N/A	N/A	0.470	32.300	7.667	5.200	J	49/49
Vinyl Acetate	11.000	1500.000	N/A	N/A	N/A	12.000	U	0/50
Vinyl Chloride	10.000	27000.000	5.000	5.000	5.000	12.000	U	1/107
Xylene (total)	5.000	1700.000	1.000	210000.000	15439.579	11.000	U	19/107
Zinc	4.200	87.400	1.200	3730.000	467.475	143.500		95/106
alpha-BHC	2.200	2500.000	N/A	N/A	N/A	22.000	U	0/49
alpha-Chlordane	3.500	4100.000	N/A	N/A	N/A	37.000	U	0/49
beta-BHC	4.300	4900.000	N/A	N/A	N/A	44.000	U	0/49
bis(2-Chloroethoxy)Methan	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
bis(2-Chloroethyl)Ether	340.000	76000.000	N/A	N/A	N/A	720.000	U	0/107
bis(2-Ethylhexyl)Phthalat	340.000	76000.000	23.000	15000.000	1216.723	410.000	U	47/107
cis-1,3-Dichloropropene	5.000	27000.000	11.000	11.000	11.000	11.000	U	1/107
delta-BHC	4.300	4900.000	N/A	N/A	N/A	44.000	U	0/49
gamma-BHC (Lindane)	2.900	3300.000	N/A	N/A	N/A	30.000	U	0/49
gamma-Chlordane	3.500	4100.000	N/A	N/A	N/A	37.000	U	0/49
n-Butyl Acetate	53.000	7700.000	N/A	N/A	N/A	58.000	U	0/50
trans-1,3-Dichloropropene	5.000	27000.000	11.000	11.000	11.000	11.000	U	1/107

Field Samples Sediment

Chem.name is chemical name...

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	6.000	83.000	N/A	N/A	N/A	7.000 U	0/63
1,1,2,2-Tetrachloroethane	6.000	83.000	N/A	N/A	N/A	7.000 U	0/63
1,1,2-Trichloroethane	6.000	83.000	N/A	N/A	N/A	7.000 U	0/63
1,1-Dichloroethane	6.000	83.000	4.000	4.000	4.000	7.000 U	1/63
1,1-Dichloroethene	6.000	83.000	N/A	N/A	N/A	7.000 U	0/63
1,2,3,4,6,7,8-HpCDD	49.400	135.000	957.000	957.000	957.000	130.500 UJ	1/4
1,2,3,4,6,7,8-HpCDF	41.800	63.400	N/A	N/A	N/A	51.750 UJ	0/4
1,2,3,4,7,8,9-HpCDF	41.000	78.700	N/A	N/A	N/A	58.150 UJ	0/4
1,2,3,4,7,8-HxCDD	59.500	94.900	N/A	N/A	N/A	82.100 UJ	0/4
1,2,3,4,7,8-HxCDF	14.700	97.900	N/A	N/A	N/A	40.450 UJ	0/4
1,2,3,6,7,8-HxCDD	65.000	137.000	N/A	N/A	N/A	101.300 UJ	0/4
1,2,3,6,7,8-HxCDF	25.800	100.000	N/A	N/A	N/A	57.900 UJ	0/4
1,2,3,7,8,9-HxCDD	77.900	164.000	N/A	N/A	N/A	121.550 UJ	0/4
1,2,3,7,8,9-HxCDF	27.200	114.000	N/A	N/A	N/A	56.550 UJ	0/4
1,2,3,7,8-PeCDD	28.800	165.000	N/A	N/A	N/A	81.450 UJ	0/4
1,2,3,7,8-PeCDF	7.950	108.000	N/A	N/A	N/A	19.750 UJ	0/4
1,2,4-Trichlorobenzene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
1,2-Dichlorobenzene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
1,2-Dichloroethane	6.000	83.000	N/A	N/A	N/A	7.000 U	0/63
1,2-Dichloroethene (total)	6.000	83.000	2.000	16.000	8.333	7.000 U	3/63
1,2-Dichloropropane	6.000	83.000	N/A	N/A	N/A	7.000 U	0/63
1,3-Dichlorobenzene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
1,4-Dichlorobenzene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2,2'-oxybis(1-Chloropropa	400.000	3000.000	N/A	N/A	N/A	480.000 U	0/27
2,3,4,6,7,8-HxCDF	45.000	162.000	N/A	N/A	N/A	93.100 UJ	0/4
2,3,4,7,8-PeCDF	30.000	100.000	N/A	N/A	N/A	59.550 UJ	0/4
2,3,7,8-TCDD	5.760	43.400	N/A	N/A	N/A	14.035 UJ	0/4
2,3,7,8-TCDF	11.100	80.400	54.000	54.000	54.000	47.900 J	1/4
2,4,5-Trichlorophenol	980.000	7300.000	N/A	N/A	N/A	2200.000 U	0/63
2,4,6-Trichlorophenol	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2,4-Dichlorophenol	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2,4-Dimethylphenol	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2,4-Dinitrophenol	980.000	7300.000	N/A	N/A	N/A	2200.000 U	0/63
2,4-Dinitrotoluene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2,6-Dinitrotoluene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2-Butanone	12.000	39.000	6.000	330.000	42.000	14.000 U	15/53
2-Chloronaphthalene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2-Chlorophenol	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2-Hexanone	12.000	83.000	N/A	N/A	N/A	14.000 U	0/63
2-Methylnaphthalene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2-Methylphenol	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
2-Nitroaniline	980.000	7300.000	N/A	N/A	N/A	2200.000 UJ	0/63
2-Nitrophenol	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
3,3'-Dichlorobenzidine	400.000	3000.000	N/A	N/A	N/A	480.000 U	0/27
3-Nitroaniline	980.000	7300.000	N/A	N/A	N/A	2200.000 U	0/63
4,4-DDD	4.100	460.000	3.700	340.000	62.025	11.000 UJ	28/73
4,4-DDE	3.300	250.000	1.600	120.000	24.813	7.900 J	38/73
4,4-DDT	4.100	490.000	12.000	240.000	59.000	54.000	9/73
4,6-Dinitro-2-Methylpheno	980.000	7300.000	N/A	N/A	N/A	2200.000 U	0/63
4-Bromophenyl-phenylether	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
4-Chloro-3-Methylphenol	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
4-Chloroaniline	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
4-Chlorophenyl-phenylethe	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
4-Methyl-2-Pentanone	12.000	83.000	N/A	N/A	N/A	14.000 U	0/63
4-Methylphenol	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
4-Nitroaniline	980.000	7300.000	N/A	N/A	N/A	2200.000 U	0/63
4-Nitrophenol	980.000	7300.000	N/A	N/A	N/A	2200.000 U	0/63
Acenaphthene	400.000	3000.000	110.000	250.000	180.000	540.000 U	2/63
Acenaphthylene	400.000	3000.000	N/A	N/A	N/A	570.000 U	0/63
Acetone	12.000	79.000	4.000	870.000	162.000	14.000 U	15/63

Actinium-228	0.000	3.630	0.000	2.320	0.503	0.516		15/18
Aldrin	2.100	130.000	6.100	6.100	6.100	3.600	U	1/64
Aluminum	N/A	N/A	272.000	15000.000	3088.279	1635.000		68/68
Anthracene	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Antimony	2.500	60.000	2.800	1560.000	393.975	7.100	J	4/68
Aroclor-1016	39.000	2500.000	N/A	N/A	N/A	45.000	U	0/64
Aroclor-1221	84.000	5100.000	N/A	N/A	N/A	110.000	U	0/64
Aroclor-1232	41.000	2500.000	N/A	N/A	N/A	110.000	U	0/64
Aroclor-1242	39.000	2500.000	N/A	N/A	N/A	45.000	U	0/64
Aroclor-1248	19.000	2500.000	680.000	1500.000	1090.000	44.500	U	2/64
Aroclor-1254	19.000	2500.000	N/A	N/A	N/A	34.500	U	0/64
Aroclor-1260	19.000	1000.000	42.000	15000.000	1245.974	165.000	J	39/64
Arsenic	0.710	3.400	0.120	33.900	2.515	0.985	J	54/68
Barium	N/A	N/A	0.750	195.000	22.180	13.300	J	68/68
Benzene	6.000	83.000	2.000	6.000	3.000	7.000	U	4/63
Benzo(a)Anthracene	400.000	3000.000	100.000	240.000	165.000	500.000	U	6/63
Benzo(a)Pyrene	400.000	3000.000	26.000	310.000	130.000	530.000	U	8/63
Benzo(b)Fluoranthene	400.000	3000.000	44.000	660.000	197.600	530.000	U	10/63
Benzo(g,h,i)Perylene	400.000	3000.000	23.000	170.000	91.000	540.000	U	5/63
Benzo(k)Fluoranthene	400.000	3000.000	32.000	400.000	212.400	540.000	U	5/63
Benzoic Acid	1900.000	5600.000	N/A	N/A	N/A	4200.000	U	0/36
Benzyl Alcohol	400.000	1200.000	N/A	N/A	N/A	860.000	U	0/36
Beryllium	0.050	5.000	0.060	3.100	0.484	0.525	J	24/68
Bismuth-212	0.000	5.390	0.001	2.390	1.036	0.601	U	6/18
Bismuth-214	0.180	2.570	0.000	2.710	0.431	0.408		14/18
Bromodichloromethane	6.000	83.000	N/A	N/A	N/A	7.000	U	0/63
Bromoform	6.000	83.000	N/A	N/A	N/A	7.000	U	0/63
Bromomethane	12.000	83.000	N/A	N/A	N/A	14.000	U	0/63
Butylbenzylphthalate	400.000	3000.000	360.000	360.000	360.000	540.000	U	1/63
Cadmium	0.730	5.700	0.350	9.400	1.989	1.200	J	17/68
Calcium	45.000	45.000	138.000	38200.000	3475.478	1190.000	J	67/68
Carbazole	400.000	3000.000	N/A	N/A	N/A	480.000	U	0/27
Carbon Disulfide	6.000	83.000	2.000	3.000	2.500	7.000	U	2/63
Carbon Tetrachloride	6.000	83.000	N/A	N/A	N/A	7.000	U	0/63
Cesium-134	0.000	1.100	N/A	N/A	N/A	0.116	U	0/18
Cesium-137	0.000	0.125	0.000	1.030	0.339	0.087		9/18
Chlorobenzene	6.000	83.000	4.000	14.000	9.000	7.000	U	2/63
Chloroethane	12.000	83.000	N/A	N/A	N/A	14.000	U	0/63
Chloroform	6.000	83.000	N/A	N/A	N/A	7.000	U	0/63
Chloromethane	12.000	83.000	N/A	N/A	N/A	14.000	U	0/63
Chromium	1.500	2.600	1.200	65.300	9.738	5.650		65/68
Chrysene	400.000	3000.000	32.000	650.000	180.000	480.000	U	12/63
Cobalt	0.490	50.000	0.600	4.100	2.025	2.950	J	19/68
Copper	0.430	25.000	0.590	1210.000	37.332	4.900	J	50/68
Cyanide	0.170	10.000	0.210	0.730	0.428	10.000	U	5/63
Di-n-Butylphthalate	400.000	4400.000	N/A	N/A	N/A	570.000	U	0/63
Di-n-Octyl Phthalate	400.000	3000.000	210.000	480.000	345.000	540.000	U	2/63
Dibenz(a,h)Anthracene	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Dibenzofuran	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Dibromochloromethane	12.000	83.000	N/A	N/A	N/A	15.000	U	0/27
Dieldrin	1.600	250.000	0.910	1.400	1.155	3.200	U	2/64
Diethylphthalate	400.000	3000.000	100.000	100.000	100.000	540.000	U	1/63
Dimethylphthalate	400.000	3000.000	160.000	160.000	160.000	540.000	U	1/63
Endosulfan I	2.100	130.000	N/A	N/A	N/A	5.300	U	0/64
Endosulfan II	3.300	250.000	N/A	N/A	N/A	4.200	U	0/64
Endosulfan sulfate	4.100	250.000	6.000	6.000	6.000	11.000	U	1/64
Endrin	4.100	250.000	N/A	N/A	N/A	5.300	U	0/64
Endrin aldehyde	4.100	250.000	N/A	N/A	N/A	9.700	U	0/27
Endrin ketone	4.100	250.000	N/A	N/A	N/A	11.000	U	0/64
Ethyl Acetate	62.000	190.000	N/A	N/A	N/A	67.500	U	0/36
Ethylbenzene	6.000	83.000	N/A	N/A	N/A	7.000	U	0/63
Fluoranthene	400.000	3000.000	61.000	1700.000	312.250	460.000	U	16/63
Fluorene	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Gross Alpha	N/A	N/A	0.400	5.000	1.722	1.600		36/36
Gross Beta	N/A	N/A	0.400	3.800	1.242	1.150		36/36
Heptachlor	2.100	130.000	N/A	N/A	N/A	2.700	U	0/64
Heptachlor epoxide	2.100	130.000	N/A	N/A	N/A	5.300	U	0/64
Hexachlorobenzene	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Hexachlorobutadiene	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Hexachlorocyclopentadiene	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Hexachloroethane	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Indeno(1,2,3-cd)Pyrene	400.000	3000.000	22.000	220.000	96.000	540.000	U	5/63

Iron	N/A	N/A	360.000	50300.000	5595.338	2535.000		68/68
Isophorone	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Lead	N/A	N/A	1.600	328.000	22.790	6.550	J	68/68
Lead-212	1.900	1.900	0.000	2.380	0.515	0.517		17/18
Lead-214	0.186	2.510	0.000	2.640	0.429	0.338		16/18
Magnesium	N/A	N/A	23.400	3320.000	400.731	187.000	J	68/68
Manganese	N/A	N/A	0.650	189.000	17.262	7.750		68/68
Mercury	0.020	0.200	0.030	12.000	1.072	0.200	U	26/68
Methoxychlor	19.000	1300.000	N/A	N/A	N/A	23.000	U	0/64
Methylene Chloride	6.000	83.000	3.000	85.000	31.000	8.000	U	7/63
N-Nitroso-Di-n-Propylamin	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
N-Nitrosodiphenylamine (1	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Naphthalene	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
Nickel	2.500	40.000	1.200	75.400	10.595	4.350	J	21/68
Nitrobenzene	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
OCDD	146.000	146.000	970.000	3694.000	2557.667	1989.500	J	3/4
OCDF	129.000	267.000	905.000	905.000	905.000	230.500	UJ	1/4
Pentachlorophenol	980.000	7300.000	N/A	N/A	N/A	2200.000	U	0/63
Phenanthrene	400.000	3000.000	24.000	1200.000	298.400	540.000	U	5/63
Phenol	400.000	3000.000	22.000	41.000	31.500	570.000	U	2/63
Potassium	97.400	5000.000	85.100	524.000	201.236	200.500	J	22/68
Potassium-40	0.002	11.900	0.002	6.430	1.474	1.545		13/18
Proactinium-231	0.002	28.200	N/A	N/A	N/A	2.135	U	0/18
Pyrene	400.000	3000.000	46.000	1200.000	241.471	460.000	U	17/63
Radium-226	N/A	N/A	0.400	2.800	0.731	0.600		36/36
Radium-228	N/A	N/A	0.300	0.800	0.336	0.300		36/36
Selenium	0.320	5.000	0.180	3.900	1.084	0.580	U	12/61
Silver	0.650	10.000	0.320	4.800	2.142	4.350		10/68
Sodium	5.200	5000.000	14.200	3680.000	388.579	118.500	J	34/68
Styrene	6.000	83.000	N/A	N/A	N/A	7.000	U	0/63
Tetrachloroethene	6.000	83.000	3.000	48.000	18.500	7.000	U	4/63
Thallium	0.220	10.000	0.270	0.520	0.368	0.380	UJ	4/68
Thallium-208	0.120	0.271	0.000	0.876	0.153	0.163		14/18
Thorium-227	0.001	7.830	N/A	N/A	N/A	0.692	U	0/18
Thorium-228	0.006	89.300	N/A	N/A	N/A	7.855	U	0/18
Thorium-234	0.002	24.400	N/A	N/A	N/A	1.880	U	0/18
Toluene	6.000	83.000	1.000	12.000	4.000	7.000	U	16/63
Total Organic Carbon	N/A	N/A	14100.000	62000.000	31050.000	24050.000		4/4
Total Petroleum Hydrocarb	N/A	N/A	4.100	26100.000	1224.981	186.000		27/27
Toxaphene	81.000	13000.000	N/A	N/A	N/A	165.000	U	0/64
Trichloroethene	6.000	83.000	2.000	15.000	7.333	7.000	U	3/63
Uranium-235	0.000	1.280	0.000	0.669	0.169	0.094	U	9/18
Vanadium	0.570	50.000	0.780	102.000	8.703	5.000	J	65/68
Vinyl Acetate	12.000	39.000	N/A	N/A	N/A	13.500	U	0/36
Vinyl Chloride	12.000	83.000	3.000	3.000	3.000	14.000	U	1/63
Xylene (total)	6.000	83.000	2.000	7.000	4.200	7.000	U	5/63
Zinc	5.600	8.600	2.200	473.000	42.362	14.000		65/68
alpha-BHC	2.100	130.000	N/A	N/A	N/A	2.700	U	0/64
alpha-Chlordane	2.300	200.000	1.700	46.000	7.029	4.400	U	21/73
beta-BHC	2.100	130.000	N/A	N/A	N/A	5.300	U	0/64
bis(2-Chloroethoxy)Methan	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
bis(2-Chloroethyl)Ether	400.000	3000.000	N/A	N/A	N/A	570.000	U	0/63
bis(2-Ethylhexyl)Phthalat	400.000	3000.000	81.000	7900.000	1471.938	540.000	U	16/63
cis-1,3-Dichloropropene	6.000	83.000	N/A	N/A	N/A	7.000	U	0/63
delta-BHC	2.100	130.000	N/A	N/A	N/A	5.300	U	0/64
gamma-BHC (Lindane)	2.100	130.000	2.000	2.000	2.000	3.600	U	1/64
gamma-Chlordane	2.300	130.000	0.670	61.000	7.381	4.300	U	18/64
n-Butyl Acetate	62.000	190.000	N/A	N/A	N/A	67.500	U	0/36
trans-1,3-Dichloropropene	6.000	83.000	N/A	N/A	N/A	7.000	U	0/63

Field Samples Surface Water

Chem.name is chemical name
 Min.dl is minimum reported detection level
 Max.dl is maximum reported detection level
 Min.lv is minimum level reported
 Max.lv is maximum level reported
 ADL.Avg is above detection level average value
 Median is median of all values above and below detection level
 Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59
1,1,2,2-Tetrachloroethane	5.000	10.000	1.000	2.000	1.500	5.000 U	2/59
1,1,2-Trichloroethane	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59
1,1-Dichloroethane	5.000	10.000	2.000	2.000	2.000	5.000 U	1/59
1,1-Dichloroethene	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59
1,2,4-Trichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
1,2-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
1,2-Dichloroethane	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59
1,2-Dichloroethene (total)	5.000	10.000	1.000	28.000	8.188	5.000 U	16/59
1,2-Dichloropropane	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59
1,2-Diphenylhydrazine	10.000	10.000	N/A	N/A	N/A	10.000 U	0/11
1,3-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
1,4-Dichlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2,2'-oxybis(1-Chloropropa	10.000	10.000	N/A	N/A	N/A	10.000 U	0/21
2,4,5-Trichlorophenol	25.000	50.000	N/A	N/A	N/A	50.000 U	0/57
2,4,6-Trichlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2,4-Dichlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2,4-Dimethylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2,4-Dinitrophenol	25.000	50.000	N/A	N/A	N/A	50.000 U	0/57
2,4-Dinitrotoluene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2,6-Dinitrotoluene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2-Butanone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/58
2-Chloronaphthalene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2-Chlorophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2-Hexanone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/59
2-Methylnaphthalene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
2-Nitroaniline	25.000	50.000	N/A	N/A	N/A	50.000 U	0/57
2-Nitrophenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
3,3'-Dichlorobenzidine	10.000	10.000	N/A	N/A	N/A	10.000 U	0/21
3-Nitroaniline	25.000	50.000	N/A	N/A	N/A	50.000 U	0/57
4,4-DDD	0.100	0.100	0.047	0.047	0.047	0.100 U	1/57
4,4-DDE	0.040	0.100	0.015	0.190	0.103	0.040 U	2/57
4,4-DDT	0.100	0.100	0.086	0.086	0.086	0.100 U	1/57
4,6-Dinitro-2-Methylpheno	25.000	50.000	N/A	N/A	N/A	50.000 U	0/57
4-Bromophenyl-phenylether	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
4-Chloro-3-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
4-Chloroaniline	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
4-Chlorophenyl-phenylethe	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
4-Methyl-2-Pentanone	10.000	10.000	10.000	10.000	10.000	10.000 U	1/59
4-Methylphenol	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
4-Nitroaniline	25.000	50.000	N/A	N/A	N/A	50.000 U	0/57
4-Nitrophenol	25.000	50.000	N/A	N/A	N/A	50.000 U	0/57
Acenaphthene	10.000	10.000	2.000	2.000	2.000	10.000 U	1/57
Acenaphthylene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Acetone	10.000	37.000	3.000	18.000	7.571	10.000 U	14/59
Actinium-228	6.400	15.400	26.100	26.100	26.100	12.400 U	1/21
Aldrin	0.040	0.050	N/A	N/A	N/A	0.040 U	0/57
Aluminum	89.700	200.000	21.000	101000.000	3136.519	178.000 J	59/61
Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Antimony	12.700	60.000	11.500	32.300	19.817	60.000 U	6/61
Aroclor-1016	0.500	1.000	N/A	N/A	N/A	0.500 U	0/57
Aroclor-1221	0.500	2.000	N/A	N/A	N/A	1.200 U	0/57
Aroclor-1232	0.500	1.200	N/A	N/A	N/A	1.000 U	0/57
Aroclor-1242	0.500	1.000	N/A	N/A	N/A	0.500 U	0/57
Aroclor-1248	0.200	1.000	0.980	8.400	3.793	0.500 U	3/57
Aroclor-1254	0.200	1.000	N/A	N/A	N/A	0.500 U	0/57
Aroclor-1260	0.200	1.000	0.700	0.700	0.700	0.500 U	1/57
Arsenic	1.900	10.000	0.600	704.000	26.496	4.900 J	34/61
Barium	N/A	N/A	12.100	817.000	120.897	85.200 J	61/61

Benzene	5.000	10.000	3.000	11.000	6.000	5.000	U	3/59
Benzo(a)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Benzo(a)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Benzo(b)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Benzo(g,h,i)Perylene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Benzo(k)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Benzoic Acid	50.000	50.000	N/A	N/A	N/A	50.000	U	0/36
Benzyl Alcohol	10.000	10.000	N/A	N/A	N/A	10.000	U	0/36
Beryllium	0.200	5.000	0.320	16.900	4.221	5.000	U	7/61
Bismuth-214	8.700	13.200	9.400	10.800	10.100	10.200	U	2/21
Bromodichloromethane	5.000	10.000	N/A	N/A	N/A	5.000	U	0/59
Bromoform	5.000	10.000	N/A	N/A	N/A	5.000	U	0/59
Bromomethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/59
Butylbenzylphthalate	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Cadmium	3.300	5.000	0.110	72.700	6.087	3.400	U	17/61
Calcium	N/A	N/A	3970.000	153000.000	60925.246	45000.000		61/61
Carbazole	10.000	10.000	N/A	N/A	N/A	10.000	U	0/21
Carbon Disulfide	5.000	10.000	N/A	N/A	N/A	5.000	U	0/59
Carbon Tetrachloride	5.000	10.000	N/A	N/A	N/A	5.000	U	0/59
Cesium-137	1.300	4.000	N/A	N/A	N/A	3.100	U	0/21
Chlorobenzene	5.000	10.000	1.000	3.000	2.000	5.000	U	3/59
Chloroethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/59
Chloroform	5.000	10.000	N/A	N/A	N/A	5.000	U	0/59
Chloromethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/59
Chromium	2.400	10.000	2.200	216.000	26.933	10.000	U	15/61
Chrysene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Cobalt	1.900	50.000	3.300	35.100	10.100	50.000	U	8/61
Copper	1.600	25.000	1.400	486.000	28.722	8.400	J	27/61
Cyanide	1.700	10.000	1.700	16.700	3.617	3.000	U	12/57
Di-n-Butylphthalate	10.000	10.000	0.600	16.000	6.200	10.000	U	3/57
Di-n-Octyl Phthalate	10.000	10.000	3.000	3.000	3.000	10.000	U	1/57
Dibenz(a,h)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Dibenzofuran	10.000	10.000	1.000	1.000	1.000	10.000	U	1/57
Dibromochloromethane	10.000	10.000	N/A	N/A	N/A	10.000	U	0/23
Dieldrin	0.020	0.100	N/A	N/A	N/A	0.020	U	0/57
Diethylphthalate	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Dimethylphthalate	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Diss. Aluminum	22.400	38.000	23.200	334.000	74.983	33.450	J	12/24
Diss. Antimony	12.700	17.400	N/A	N/A	N/A	17.400	U	0/24
Diss. Arsenic	1.900	2.900	4.100	44.200	9.127	2.900	U	11/24
Diss. Barium	N/A	N/A	23.000	135.000	75.775	68.750	J	24/24
Diss. Beryllium	0.200	0.400	N/A	N/A	N/A	0.400	U	0/24
Diss. Cadmium	3.300	3.400	N/A	N/A	N/A	3.400	U	0/24
Diss. Calcium	N/A	N/A	2140.000	141000.000	57130.000	48800.000		24/24
Diss. Chromium	2.400	3.400	2.500	2.500	2.500	2.400	U	1/24
Diss. Cobalt	1.900	3.400	N/A	N/A	N/A	3.400	U	0/24
Diss. Copper	1.600	2.300	2.800	43.800	15.620	2.300	U	5/24
Diss. Iron	N/A	N/A	34.600	27200.000	3097.246	369.500		24/24
Diss. Lead	0.690	6.900	1.600	16.200	5.929	0.915	U	7/22
Diss. Magnesium	N/A	N/A	1310.000	170000.000	27323.333	15450.000		24/24
Diss. Manganese	41.700	41.700	14.700	243.000	47.013	31.350		23/24
Diss. Mercury	0.100	0.160	0.140	0.150	0.145	0.120	U	4/24
Diss. Nickel	9.600	12.600	N/A	N/A	N/A	12.600	U	0/24
Diss. Potassium	N/A	N/A	785.000	49100.000	6561.917	4175.000	J	24/24
Diss. Selenium	1.700	2.000	2.100	4.700	3.100	1.700	U	3/24
Diss. Silver	2.500	4.200	N/A	N/A	N/A	4.200	U	0/24
Diss. Sodium	N/A	N/A	9190.000	1320000.00	91329.583	29850.000		24/24
Diss. Thallium	0.890	8.900	N/A	N/A	N/A	0.890	U	0/21
Diss. Vanadium	2.200	3.900	2.600	4.300	3.450	2.500	U	2/24
Diss. Zinc	2.000	2.000	2.100	40.000	11.138	5.850	J	21/24
Endosulfan I	0.050	0.050	N/A	N/A	N/A	0.050	U	0/57
Endosulfan II	0.040	0.100	N/A	N/A	N/A	0.040	U	0/57
Endosulfan sulfate	0.100	0.100	N/A	N/A	N/A	0.100	U	0/57
Endrin	0.060	0.100	N/A	N/A	N/A	0.060	U	0/57
Endrin aldehyde	0.100	0.100	N/A	N/A	N/A	0.100	U	0/21
Endrin ketone	0.100	0.100	N/A	N/A	N/A	0.100	U	0/57
Ethyl Acetate	50.000	50.000	N/A	N/A	N/A	50.000	U	0/36
Ethylbenzene	5.000	10.000	2.000	2.000	2.000	5.000	U	1/59
Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Fluorene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/57
Gross Alpha	N/A	N/A	0.100	27.900	5.053	1.750		36/36
Gross Beta	N/A	N/A	0.300	55.800	19.847	16.300		36/36

Heptachlor	0.030	0.050	N/A	N/A	N/A	0.030 U	0/57
Heptachlor epoxide	0.050	0.050	N/A	N/A	N/A	0.050 U	0/57
Hexachlorobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Hexachlorobutadiene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Hexachlorocyclopentadiene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Hexachloroethane	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Indeno(1,2,3-cd)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Iron	N/A	N/A	156.000	335000.000	14526.016	1310.000	61/61
Isophorone	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Lead	0.690	6.900	0.700	946.000	37.632	2.450 J	49/60
Lead-212	6.600	8.500	N/A	N/A	N/A	7.600 U	0/21
Lead-214	6.200	9.300	17.600	24.800	21.200	8.300 U	2/21
Magnesium	N/A	N/A	1560.000	92300.000	22043.279	15800.000	61/61
Manganese	N/A	N/A	7.000	288.000	82.072	50.800	61/61
Mercury	0.100	0.200	0.200	1.300	0.787	0.200 U	3/61
Methoxychlor	0.500	0.500	N/A	N/A	N/A	0.500 U	0/57
Methylene Chloride	5.000	13.000	11.000	11.000	11.000	10.000 UJ	1/59
N-Nitroso-Di-n-Propylamin	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
N-Nitrosodiphenylamine (1	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Naphthalene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Nickel	9.600	40.000	5.300	168.000	32.509	12.600 U	11/61
Nitrobenzene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Pentachlorophenol	25.000	50.000	N/A	N/A	N/A	50.000 U	0/57
Phenanthrene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Phenol	10.000	10.000	2.000	2.000	2.000	10.000 U	1/57
Potassium	N/A	N/A	782.000	33000.000	8481.623	4520.000 J	61/61
Potassium-40	20.800	69.200	N/A	N/A	N/A	44.600 U	0/21
Pyrene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
Radium-223	9.500	26.900	N/A	N/A	N/A	21.700 U	0/21
Radium-224	55.700	84.700	N/A	N/A	N/A	71.000 U	0/21
Radium-226	N/A	N/A	0.200	2.200	0.686	0.600	36/36
Radium-228	N/A	N/A	0.300	1.400	0.456	0.300	36/36
Selenium	1.700	5.000	1.400	10.000	4.183	5.000 U	6/60
Silver	0.150	10.000	0.200	16.000	2.213	3.350 U	11/52
Sodium	N/A	N/A	7340.000	614000.000	50193.934	29900.000	61/61
Styrene	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59
Tetrachloroethene	5.000	10.000	17.000	17.000	17.000	5.000 U	1/59
Thallium	0.890	10.000	0.940	1.500	1.220	10.000 U	2/57
Thallium-208	3.100	5.000	14.800	14.800	14.800	4.000 U	1/21
Thorium-231	4.200	5.600	N/A	N/A	N/A	4.600 U	0/21
Thorium-234	124.000	243.000	122.000	209.000	167.667	151.000 U	3/21
Toluene	5.000	10.000	2.000	2.000	2.000	5.000 U	2/59
Total Petroleum Hydrocarb	0.060	0.060	0.070	21.200	4.572	0.060 U	5/21
Toxaphene	1.000	5.000	N/A	N/A	N/A	1.000 U	0/57
Trichloroethene	5.000	10.000	1.000	37.000	9.889	5.000 U	9/59
Vanadium	1.700	50.000	1.500	473.000	34.277	3.000 J	31/61
Vinyl Acetate	10.000	10.000	N/A	N/A	N/A	10.000 U	0/36
Vinyl Chloride	10.000	10.000	5.000	8.000	6.500	10.000 U	4/59
Xylene (total)	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59
Zinc	20.000	20.000	2.800	1820.000	73.021	18.600 J	47/61
alpha-BHC	0.030	0.050	N/A	N/A	N/A	0.030 U	0/57
alpha-Chlordane	0.050	0.050	N/A	N/A	N/A	0.050 U	0/57
beta-BHC	0.050	0.050	N/A	N/A	N/A	0.050 U	0/57
bis(2-Chloroethoxy)Methan	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
bis(2-Chloroethyl)Ether	10.000	10.000	N/A	N/A	N/A	10.000 U	0/57
bis(2-Ethylhexyl)Phthalat	10.000	10.000	3.000	13.000	5.250	10.000 U	8/57
cis-1,3-Dichloropropene	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59
delta-BHC	0.050	0.050	N/A	N/A	N/A	0.050 U	0/57
gamma-BHC (Lindane)	0.040	0.050	N/A	N/A	N/A	0.040 U	0/57
gamma-Chlordane	0.050	0.050	N/A	N/A	N/A	0.050 U	0/57
n-Butyl Acetate	50.000	50.000	N/A	N/A	N/A	50.000 U	0/36
trans-1,3-Dichloropropene	5.000	10.000	N/A	N/A	N/A	5.000 U	0/59

Field Samples - Air

Chem.name is chemical name--

Min.dl is minimum reported detection level

Max.dl is maximum reported detection level

Min.lv is minimum level reported

Max.lv is maximum level reported

ADL.Avg is above detection level average value

Median is median of all values above and below detection level

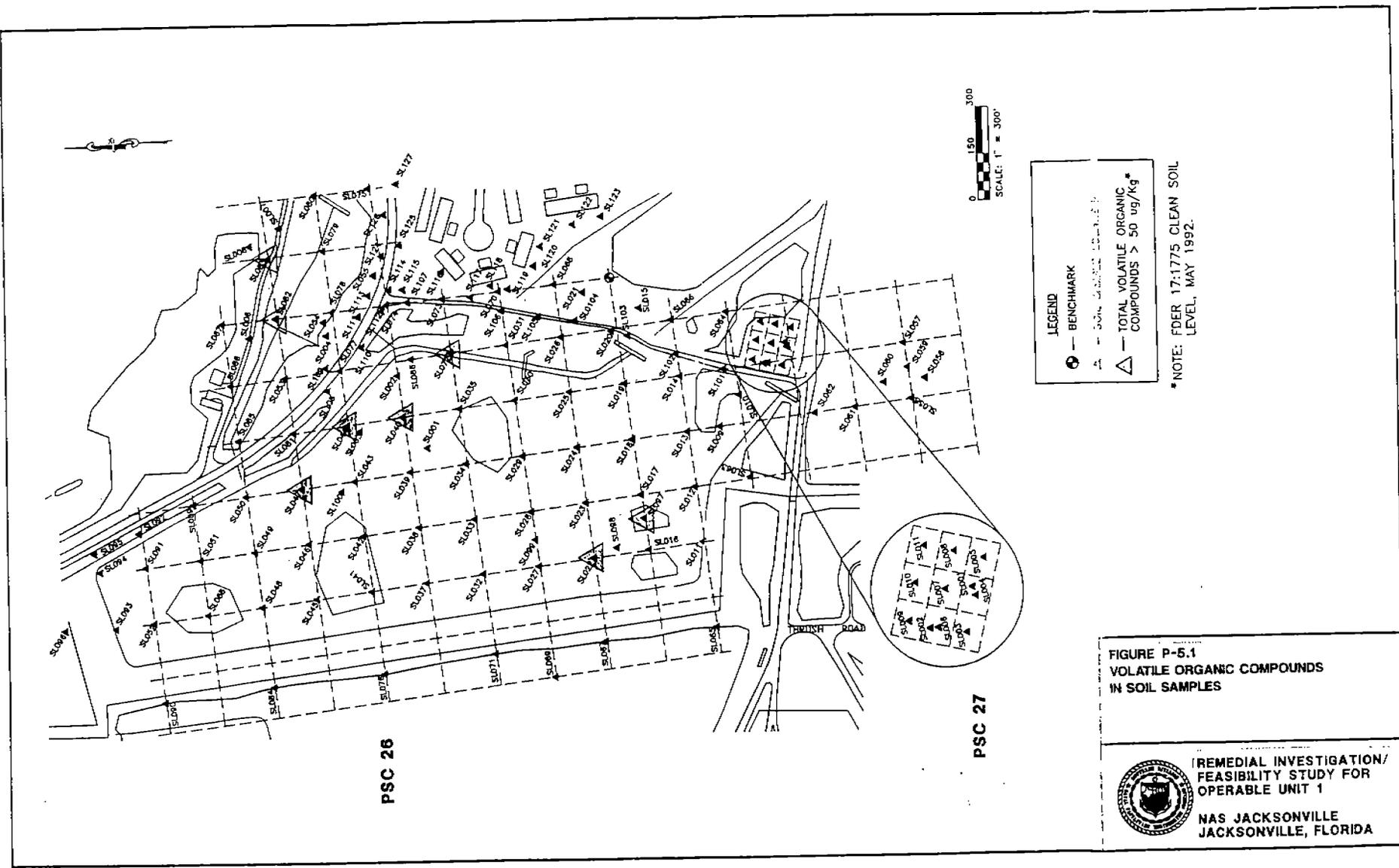
Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
1,1,1-Trichloroethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,1,2,2-Tetrachloroethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,1,2-Trichloroethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,1,2-Trichlorotrifluoroe	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,1-Dichloroethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,1-Dichloroethene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,2,4-Trichlorobenzene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,2,4-Trimethylbenzene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,2-Dibromoethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,2-Dichloro-tetrafluoroe	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,2-Dichlorobenzene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,2-Dichloroethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,2-Dichloropropane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,3,5-Trimethylbenzene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,3-Dichlorobenzene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
1,4-Dichlorobenzene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
2-Chlorotoluene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
4-Ethyltoluene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Acenaphthene	10.000	10.000	1.000	2.000	1.583	2.000 J	12/17
Acenaphthylene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Aluminum	19.800	19.800	51.400	163.000	88.931	82.500 J	16/17
Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Antimony	20.000	20.000	N/A	N/A	N/A	20.000 U	0/17
Aroclor-1016	1.000	1.000	N/A	N/A	N/A	1.000 U	0/17
Aroclor-1221	1.000	1.000	N/A	N/A	N/A	1.000 U	0/17
Aroclor-1232	1.000	1.000	N/A	N/A	N/A	1.000 U	0/17
Aroclor-1242	1.000	1.000	N/A	N/A	N/A	1.000 U	0/17
Aroclor-1248	1.000	1.000	N/A	N/A	N/A	1.000 U	0/17
Aroclor-1254	1.000	1.000	N/A	N/A	N/A	1.000 U	0/17
Aroclor-1260	1.000	1.000	N/A	N/A	N/A	1.000 U	0/17
Arsenic	0.540	0.540	0.720	0.900	0.810	0.540 U	2/17
Barium	N/A	N/A	1.700	5.900	4.471	4.800 J	17/17
Benzene	0.060	0.140	0.190	0.190	0.190	0.090 U	1/17
Benzo(a)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Benzo(a)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Benzo(b)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Benzo(g,h,i)Perylene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Benzo(k)Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Beryllium	0.180	0.180	N/A	N/A	N/A	0.180 U	0/17
Bromomethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Cadmium	2.400	2.400	2.800	3.000	2.900	2.400 U	2/17
Calcium	N/A	N/A	441.000	2020.000	1116.294	1060.000 J	17/17
Carbon Tetrachloride	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Chlorobenzene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Chloroethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Chloroform	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Chloromethane	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Chromium	3.700	3.700	3.800	5.100	4.120	3.700 U	5/17
Chrysene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Cobalt	3.200	3.200	N/A	N/A	N/A	3.200 U	0/17
Copper	2.000	2.000	21.000	288.000	111.869	90.500	16/17
Dibenz(a,h)Anthracene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Dichlorodifluoromethane	0.060	0.140	0.070	0.070	0.070	0.090 U	1/17
Ethylbenzene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Fluoranthene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Fluorene	10.000	10.000	1.000	2.000	1.571	2.000 J	14/17
Hexachlorobutadiene	0.060	0.140	N/A	N/A	N/A	0.090 U	0/17
Indeno(1,2,3-cd)Pyrene	10.000	10.000	N/A	N/A	N/A	10.000 U	0/17
Iron	N/A	N/A	15.600	157.000	101.024	116.000	17/17
Lead	0.450	0.450	2.200	9.300	4.944	4.000	16/17

Magnesium	N/A	N/A	86.700	264.000	164.806	153.000	J	17/17
Manganese	0.630	0.630	2.300	5.400	3.700	3.700	J	16/17
Mercury	0.036	0.036	0.036	0.110	0.053	0.036	J	10/17
Methylene Chloride	0.070	0.330	N/A	N/A	N/A	0.200	U	0/17
Naphthalene	10.000	10.000	8.000	53.000	26.933	27.000		15/17
Nickel	5.100	5.100	5.400	7.500	6.420	5.100	U	5/17
Phenanthrene	10.000	10.000	1.000	7.000	3.933	4.000	J	15/17
Potassium	232.000	232.000	323.000	573.000	429.500	232.000	U	4/17
Pyrene	10.000	10.000	N/A	N/A	N/A	10.000	U	0/17
Selenium	0.720	0.720	0.720	2.100	1.376	1.300	J	15/17
Silver	11.800	11.800	N/A	N/A	N/A	11.800	U	0/17
Sodium	N/A	N/A	1190.000	2290.000	1574.706	1400.000	J	17/17
Styrene	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
Tetrachloroethene	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
Thallium	0.630	0.630	N/A	N/A	N/A	0.630	U	0/17
Toluene	0.060	0.140	0.240	0.240	0.240	0.090	U	1/17
Trichloroethene	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
Trichlorofluoromethane	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
Vanadium	3.400	3.400	4.100	21.900	14.450	5.100	J	10/17
Vinyl Chloride	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
Zinc	N/A	N/A	3.700	39.100	22.376	22.500		17/17
cis-1,2-Dichloroethene	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
cis-1,3-Dichloropropene	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
m,p-Xylene	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
o-Xylene	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17
trans-1,3-Dichloropropene	0.060	0.140	N/A	N/A	N/A	0.090	U	0/17

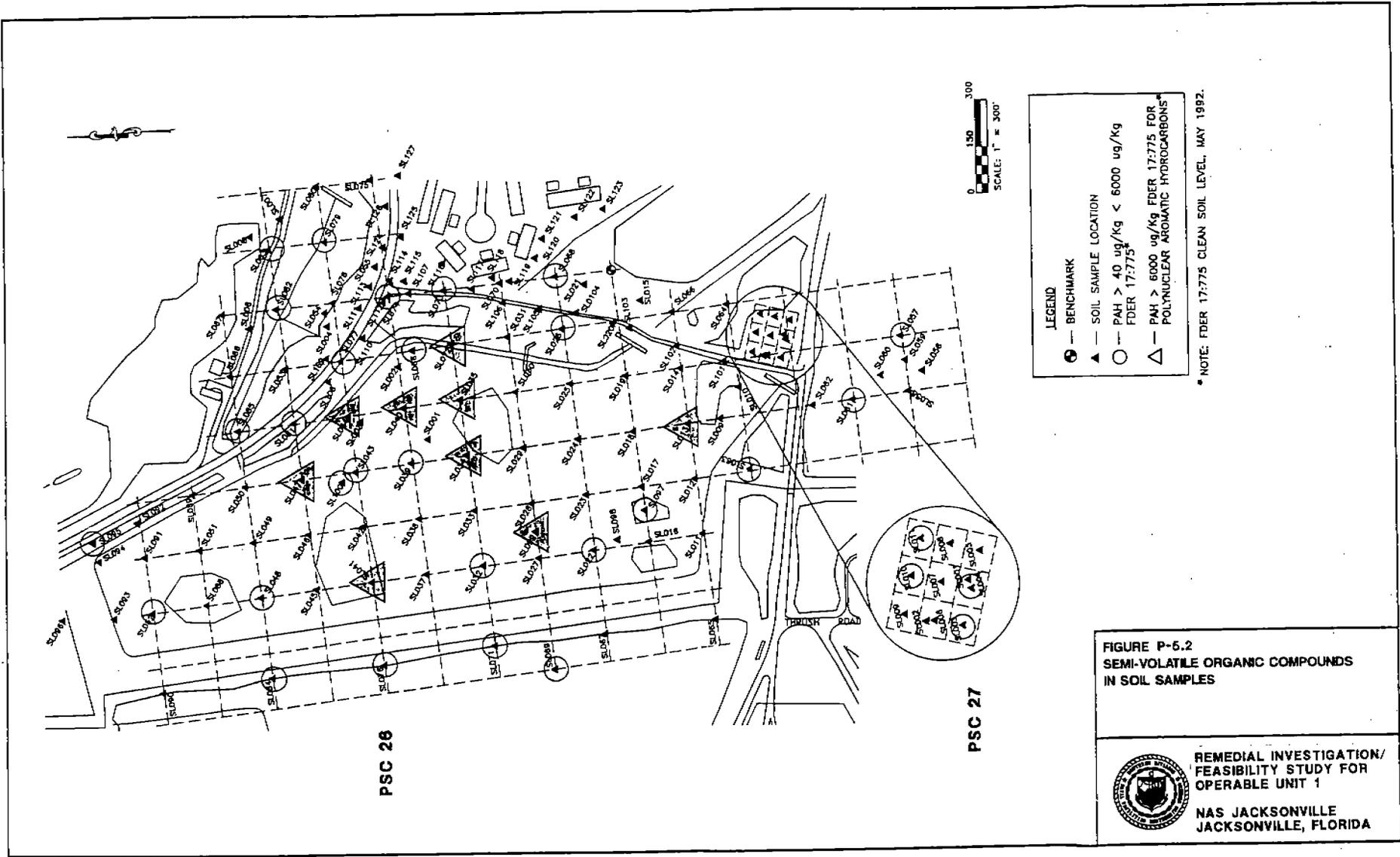
APPENDIX P-5

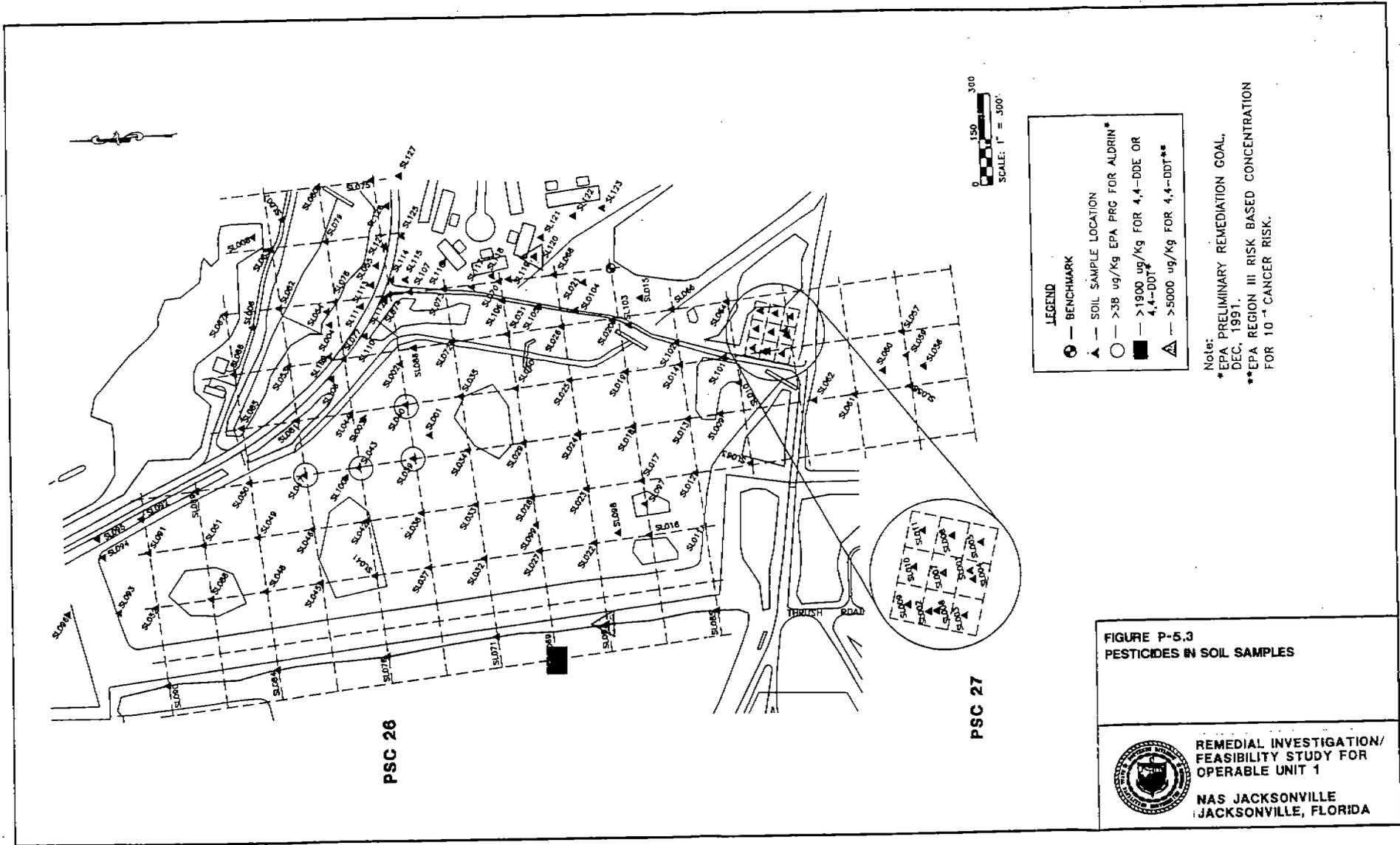
FIGURES

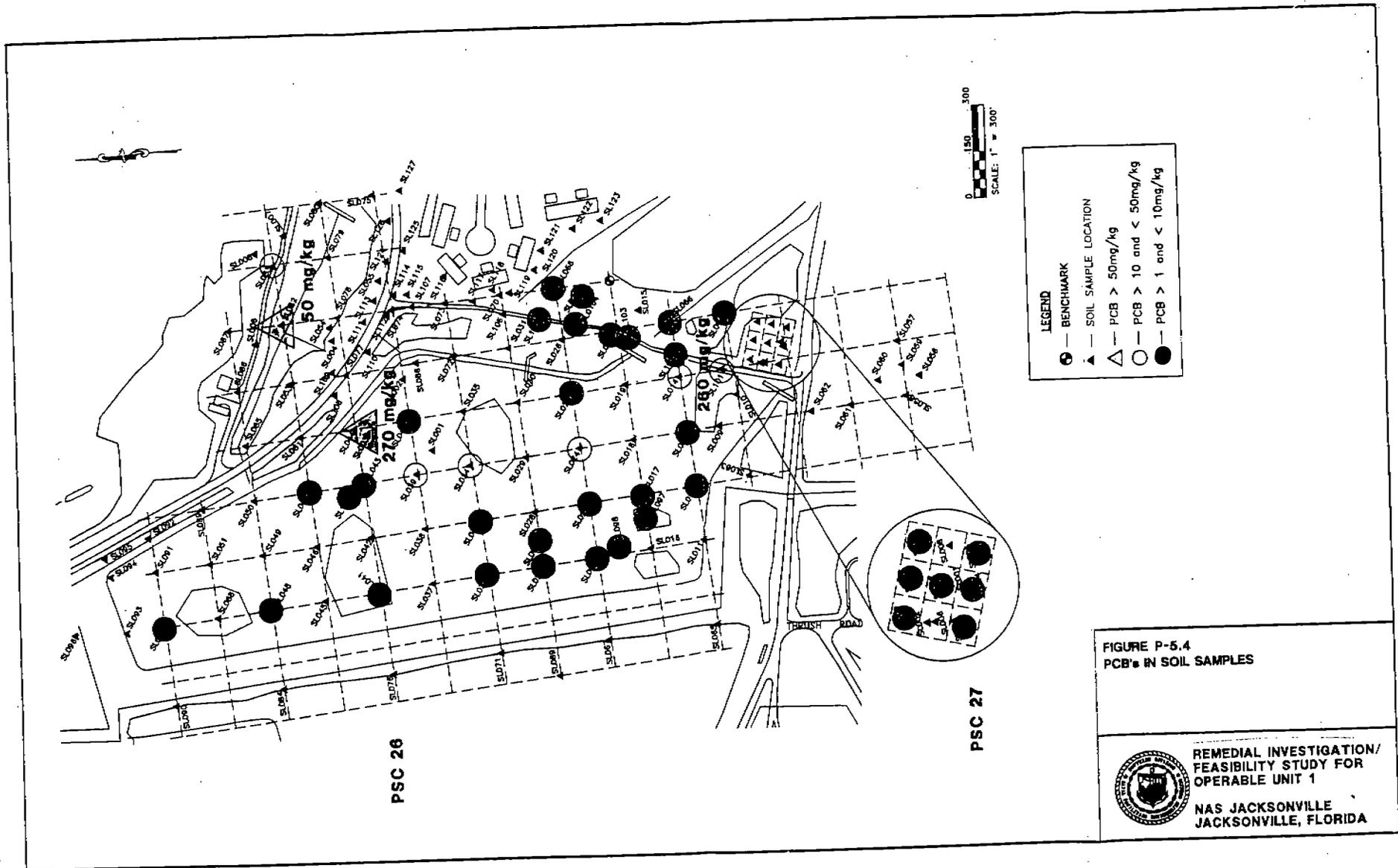


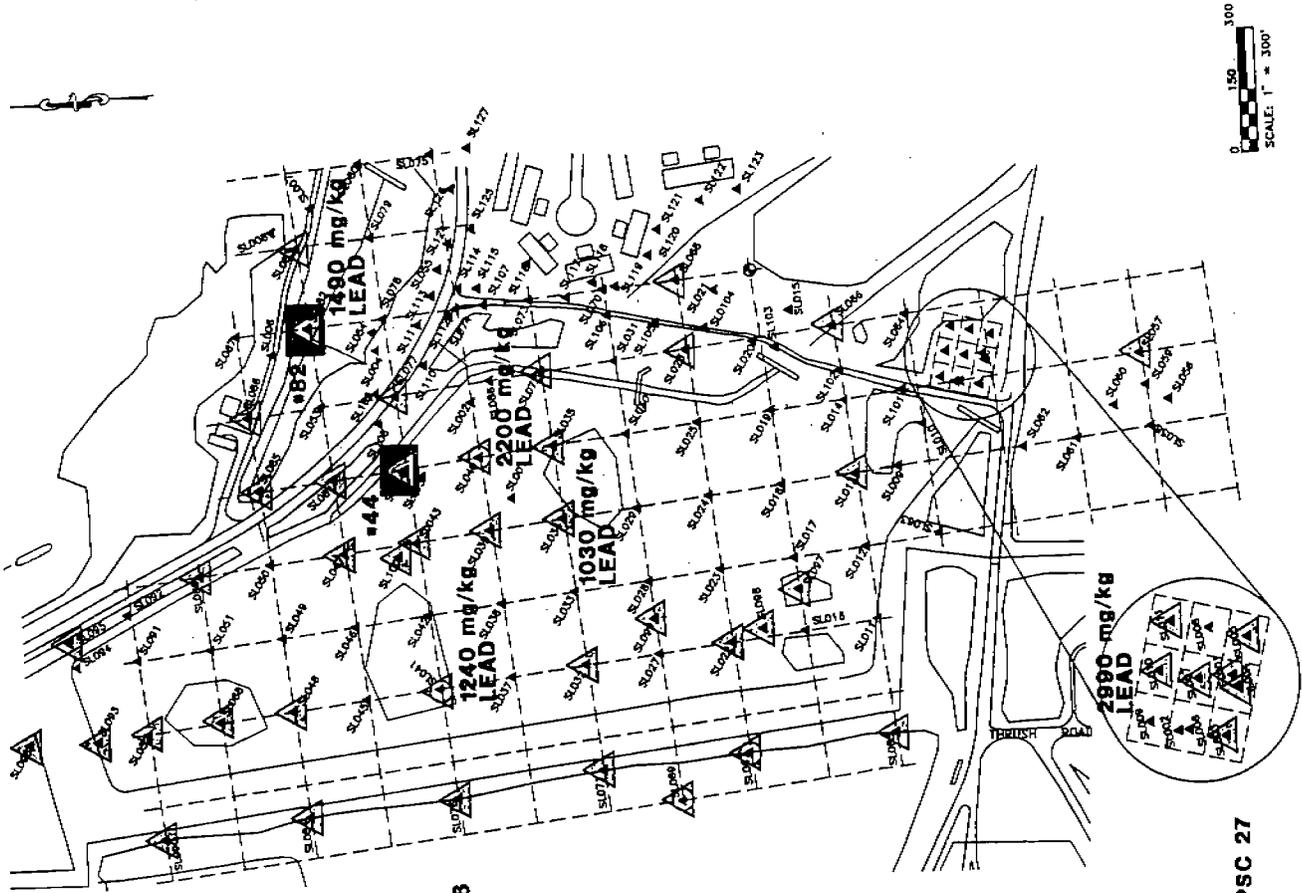
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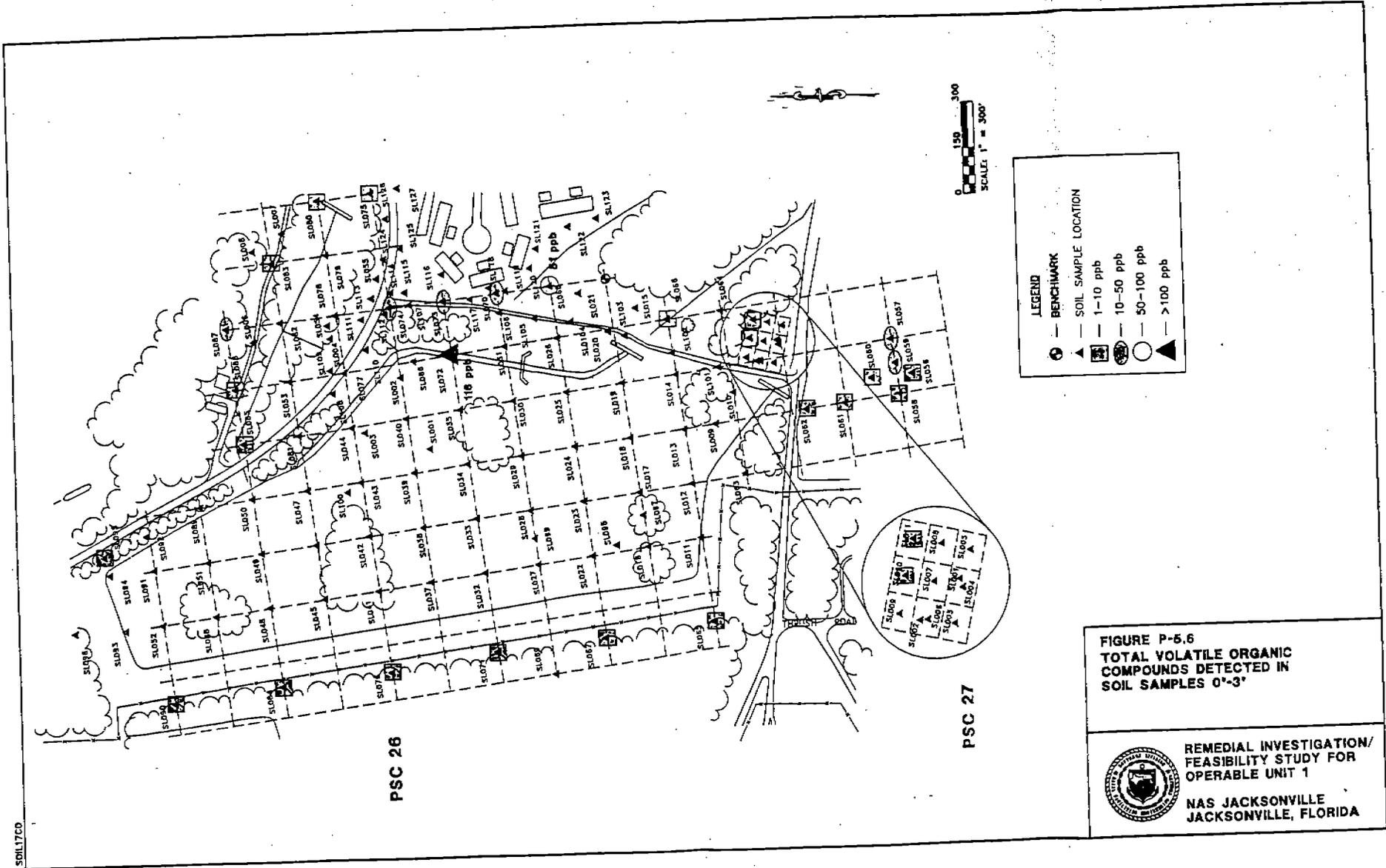
FIGURE P-5.5
INORGANIC COMPOUNDS IN SOIL SAMPLES

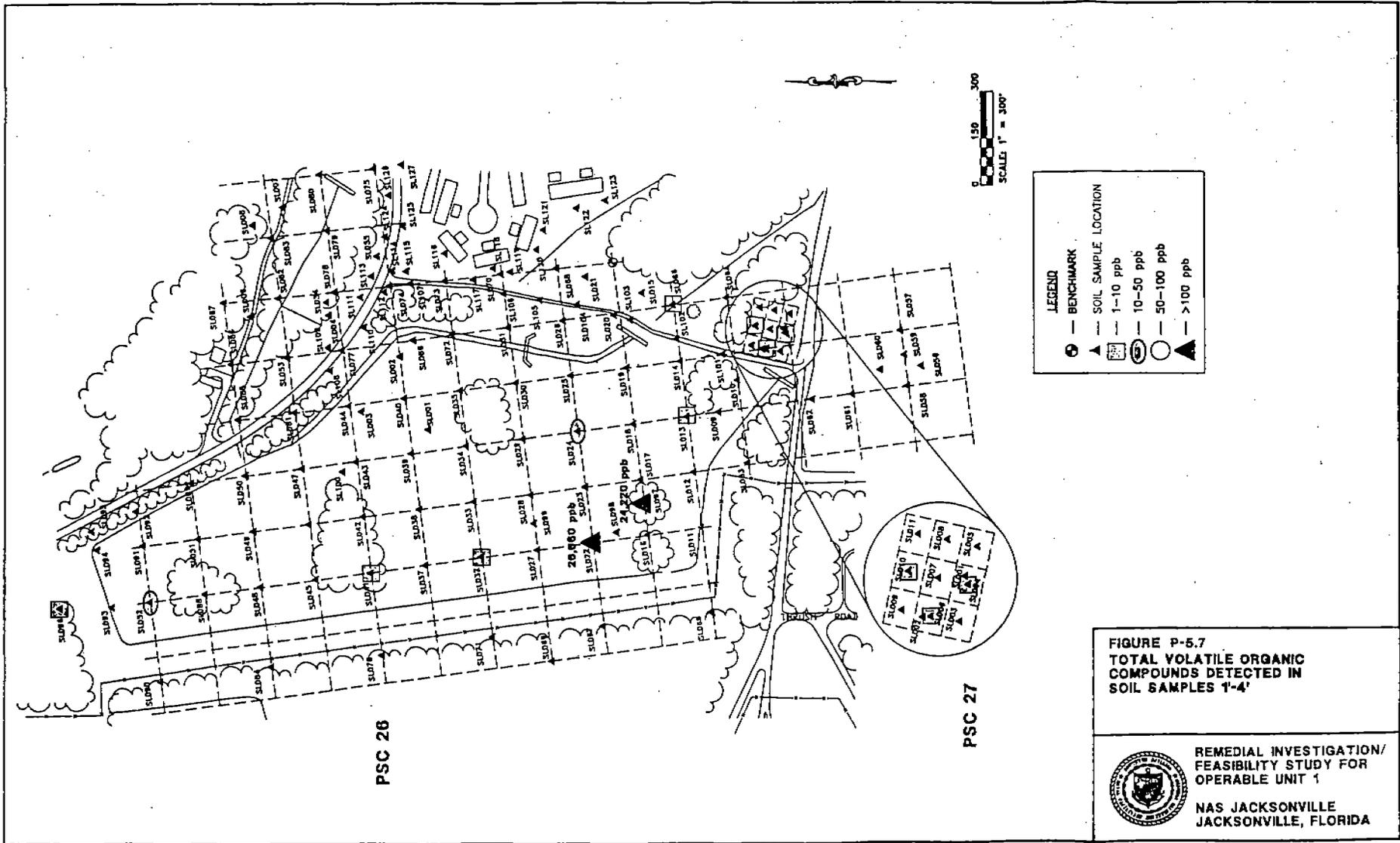


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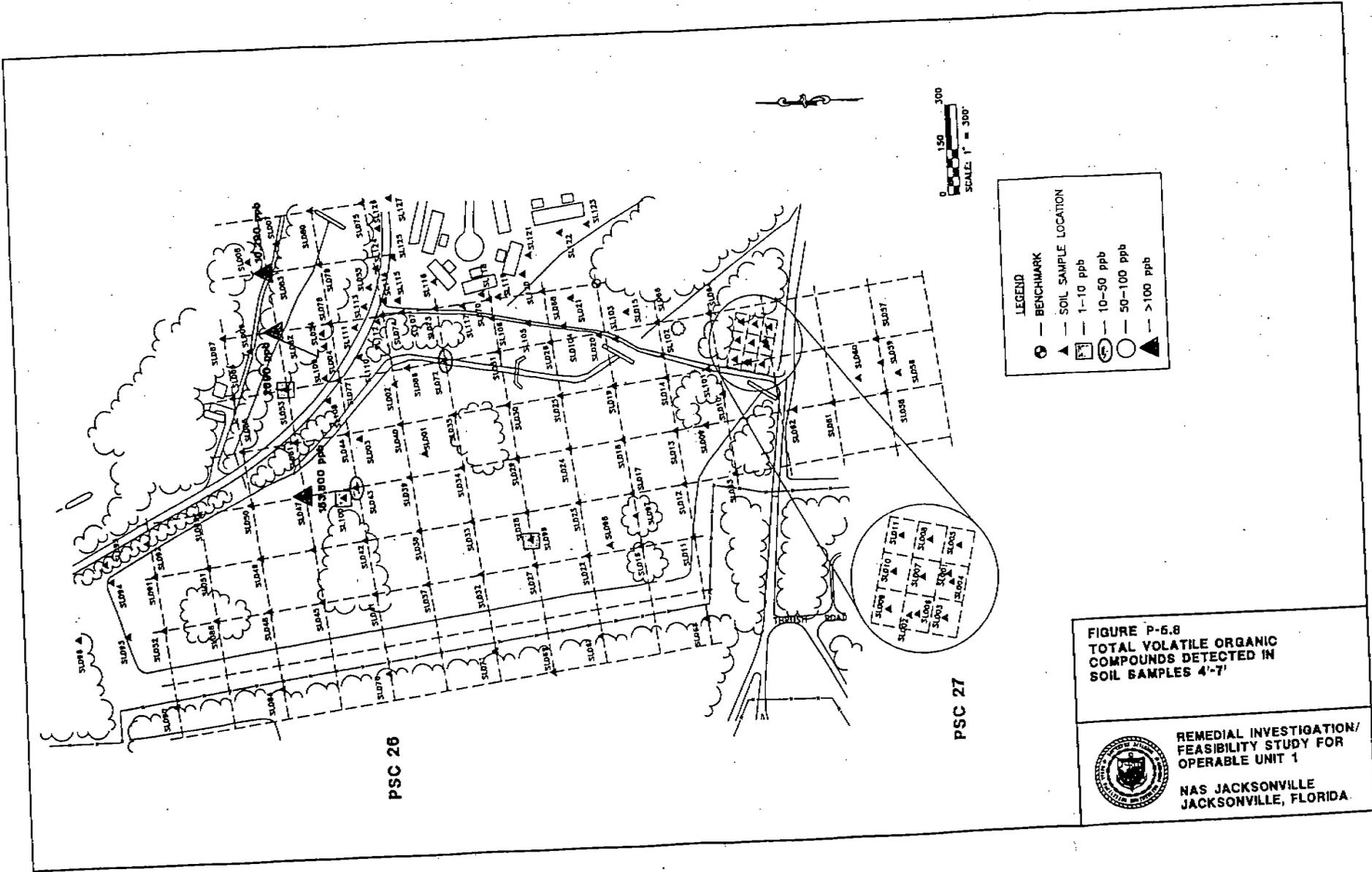
LEGEND

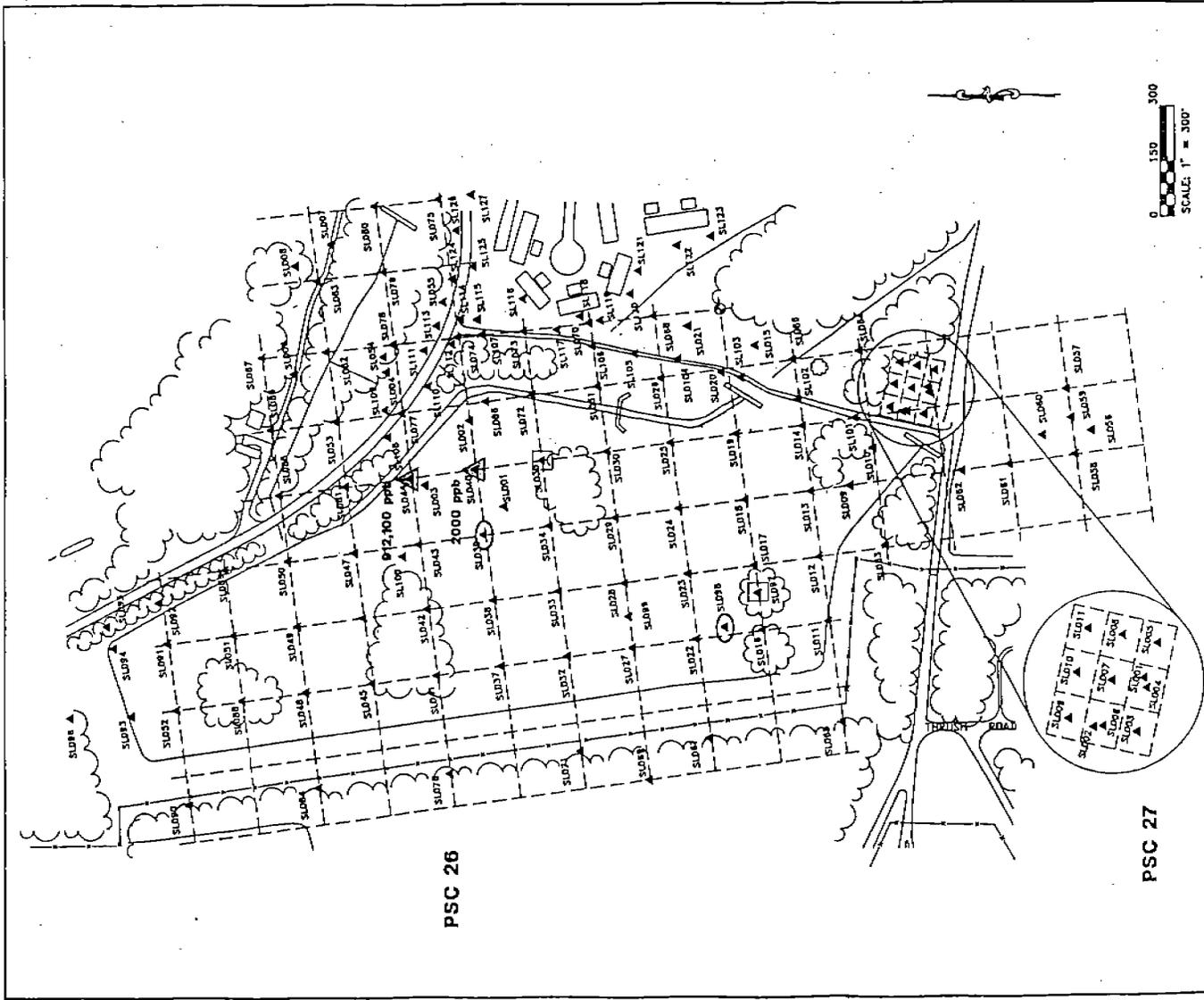
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 1-10 ppb
- 10-50 ppb
- 50-100 ppb
- >100 ppb

FIGURE P-5.7
TOTAL VOLATILE ORGANIC
COMPOUNDS DETECTED IN
SOIL SAMPLES 1-4'

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- ⊙ --- BENCHMARK
- ▲ --- SOIL SAMPLE LOCATION
- --- 1-10 ppb
- --- 10-50 ppb
- (with dot) --- 50-100 ppb
- ▲ (with dot) --- >100 ppb

FIGURE P-5.8
TOTAL VOLATILE ORGANIC
COMPOUNDS DETECTED IN
SOIL SAMPLES 7'-12'

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LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0-3'
- 1-4'
- 4-7'
- △ 7-12'

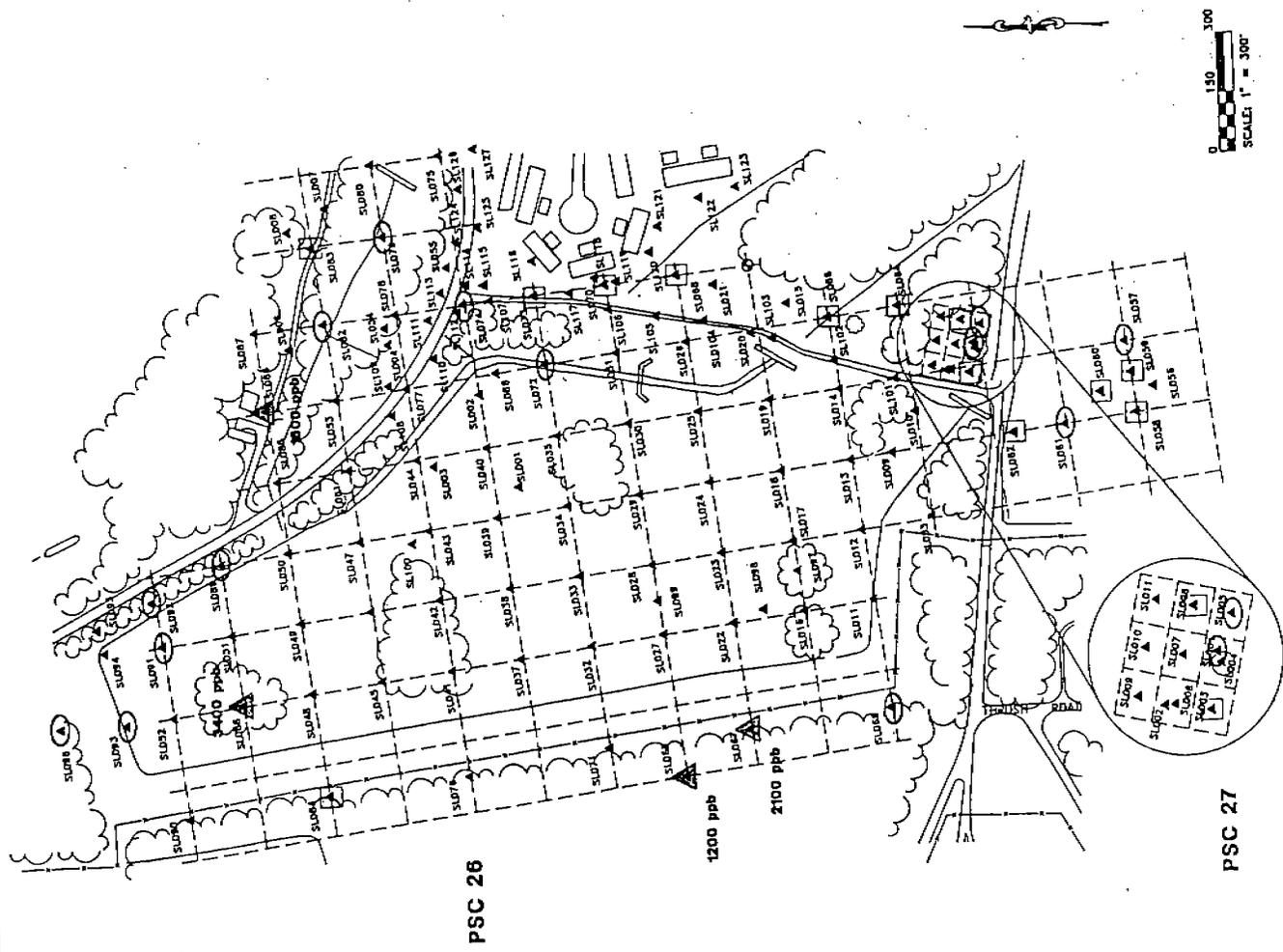
FIGURE P-5.10
SEMIVOLATILES(MISC.)
DETECTED IN SOIL SAMPLES.

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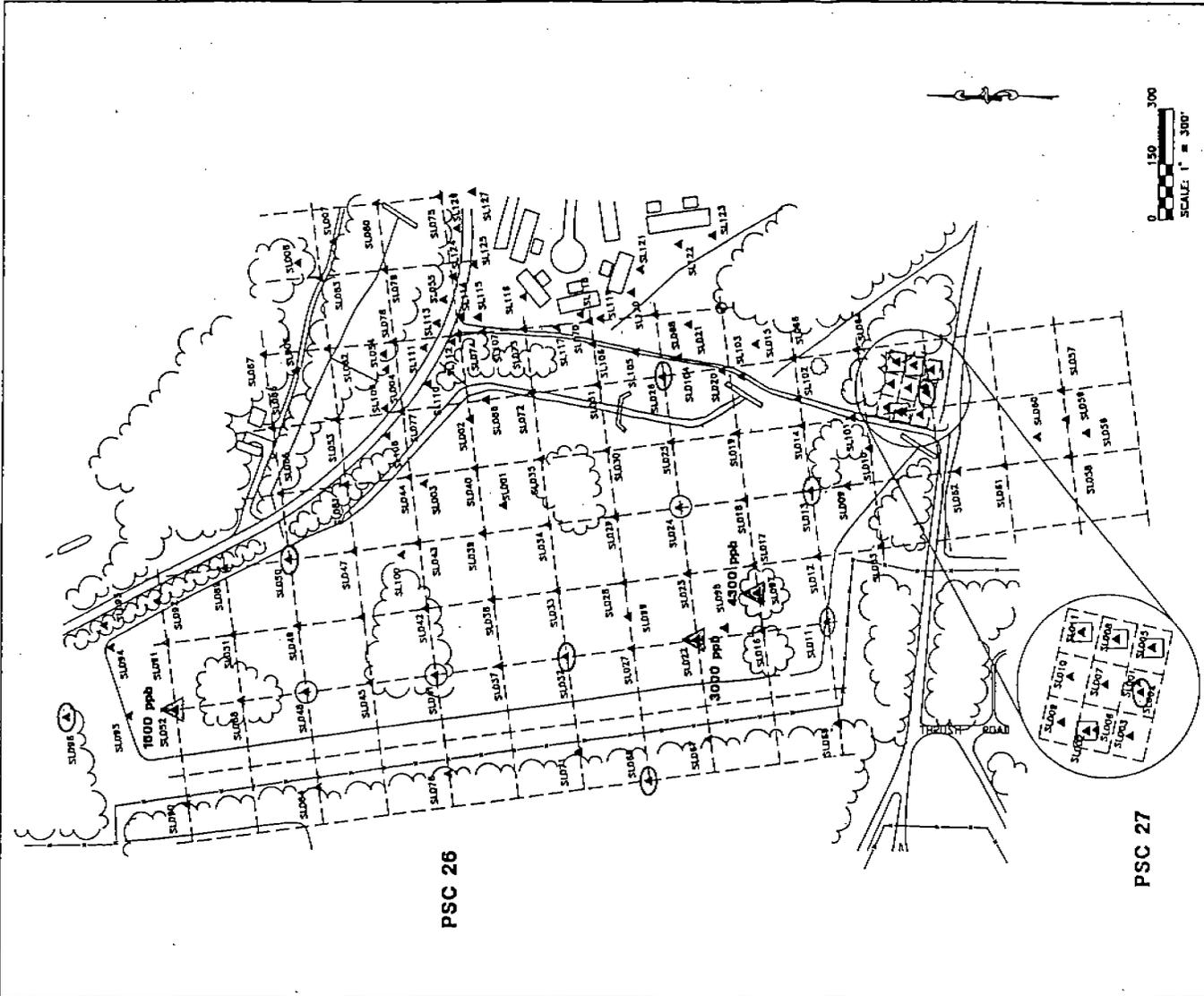
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 1-100 ppb
- 100-500 ppb
- 500-1000 ppb
- ▲ 1000 ppb

FIGURE P-5.11
 PHTHALATES (TOTAL) DETECTED
 IN SOIL SAMPLES 0" - 3"

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SOIL75CO



LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 1-100 ppb
- 100-500 ppb
- 500-1000 ppb
- ▲ 1000 ppb
- ▲ 3000 ppb
- ▲ 4300 ppb
- ▲ 5000 ppb

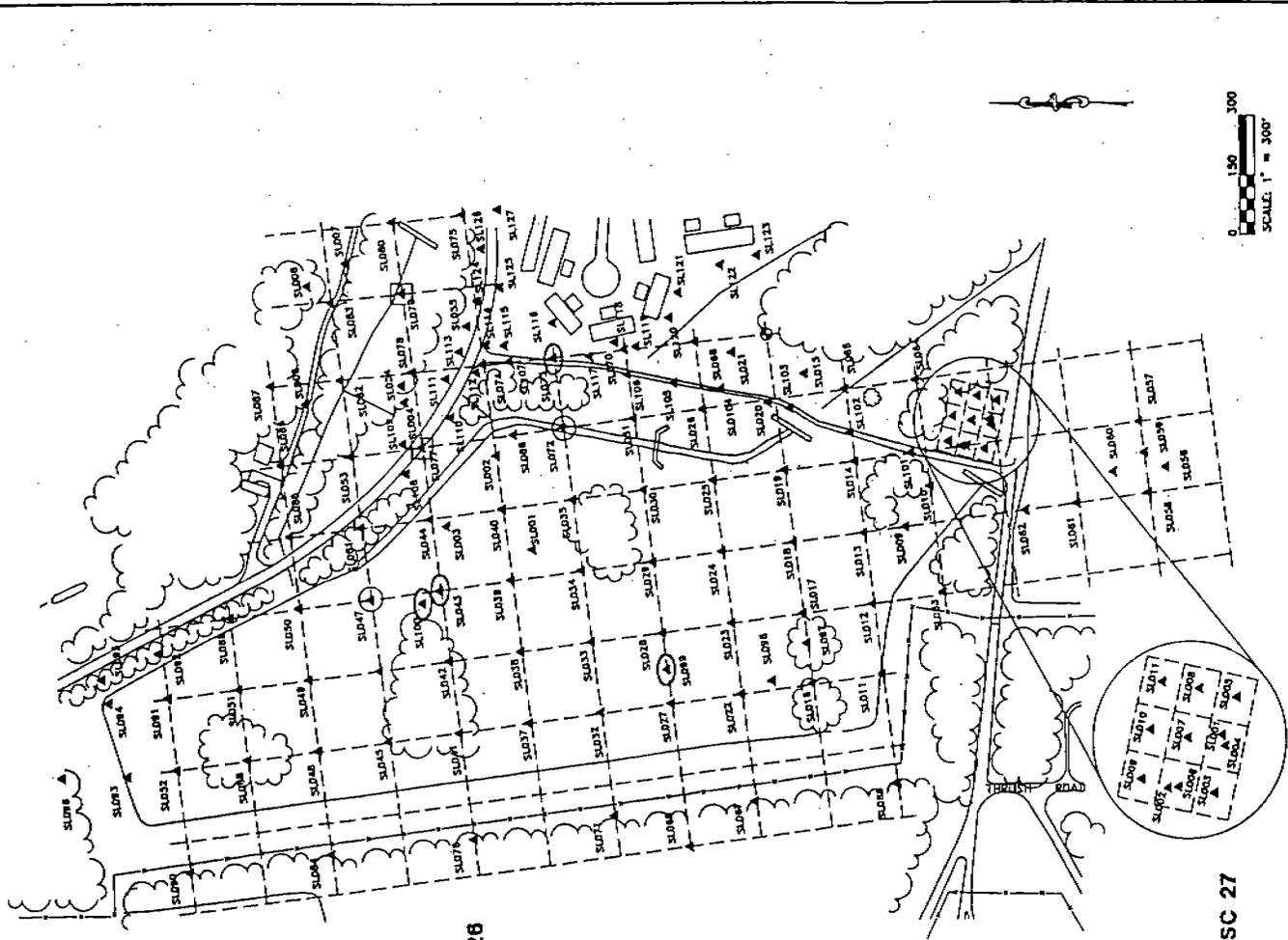
FIGURE P-5.12
PHTHALATES (TOTAL) DETECTED
IN SOIL SAMPLES 1' - 4'

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LEGEND

- ⊙ BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 1-100 ppb
- 100-500 ppb
- 500-1000 ppb
- ⊠ >1000 ppb

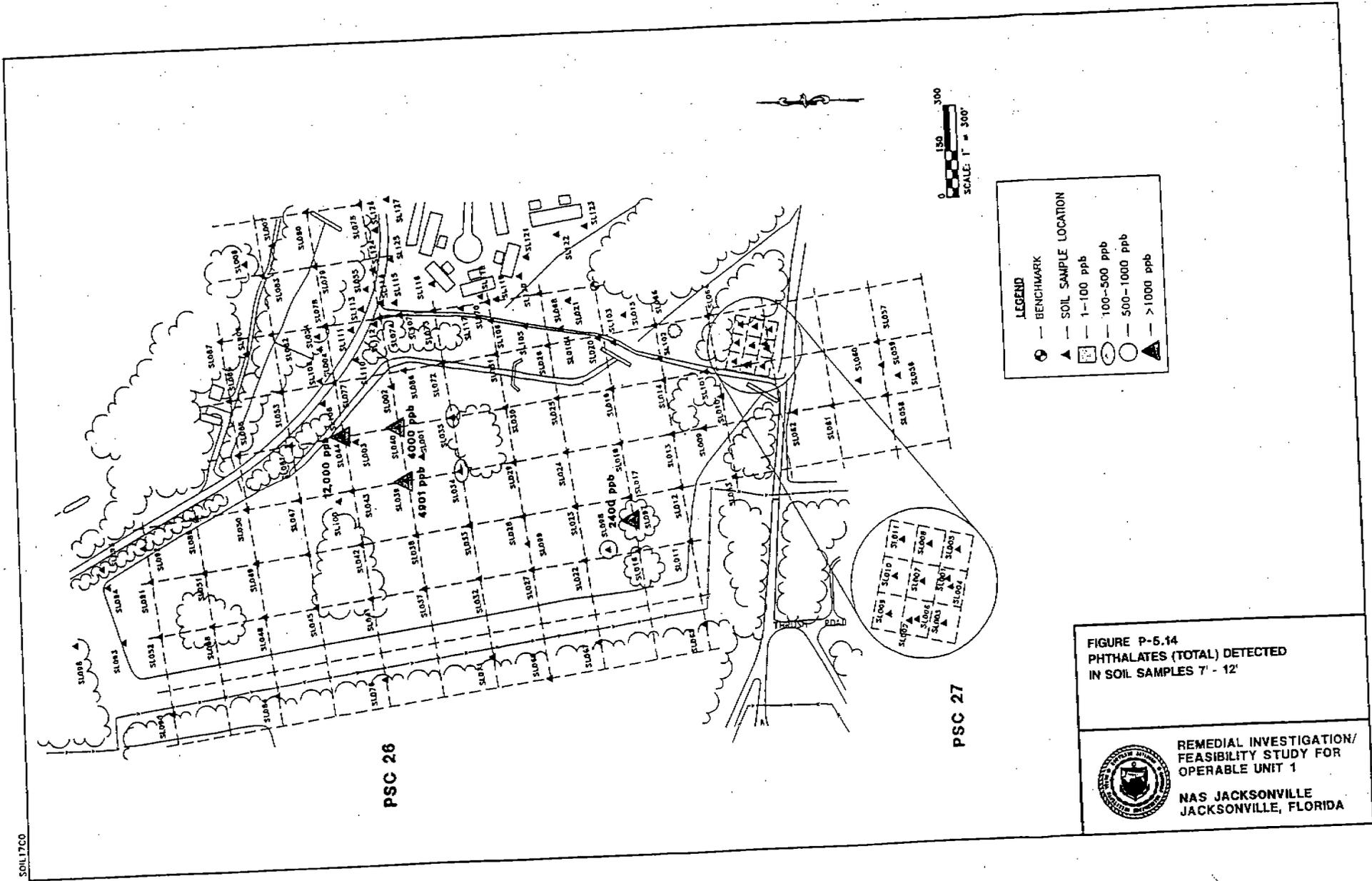


FIGURE P-5.13
PHTHALATES (TOTAL) DETECTED
IN SOIL SAMPLES 4' - 7'

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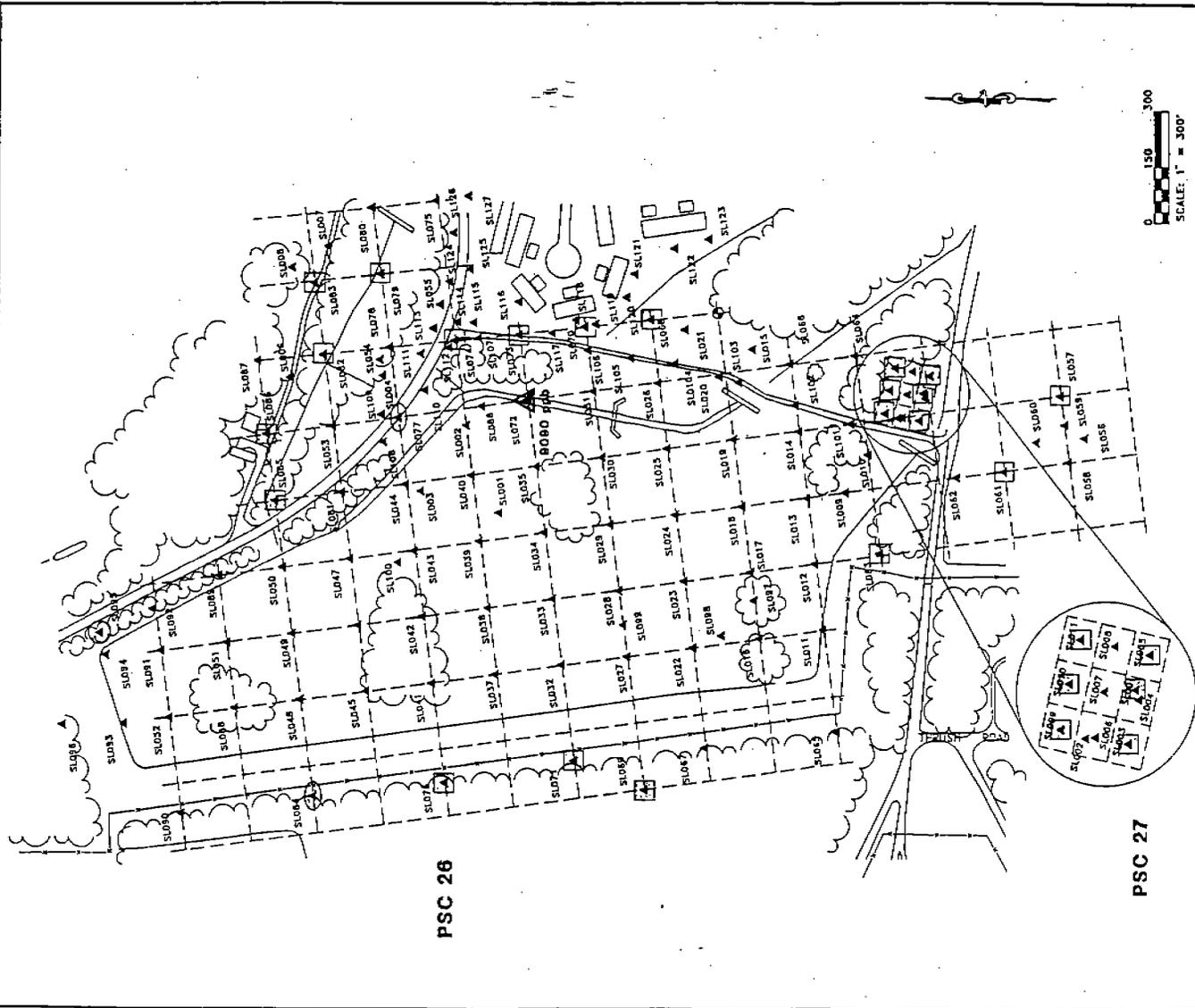
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FIGURE P-5.14
 PHTHALATES (TOTAL) DETECTED
 IN SOIL SAMPLES 7' - 12'

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LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 1-2000 ppb
- 2000-4000 ppb
- 4000-6000 ppb
- ▲ >6000 ppb

FIGURE P-5.15
TOTAL PAH'S DETECTED
IN SOIL SAMPLES 0'-3'



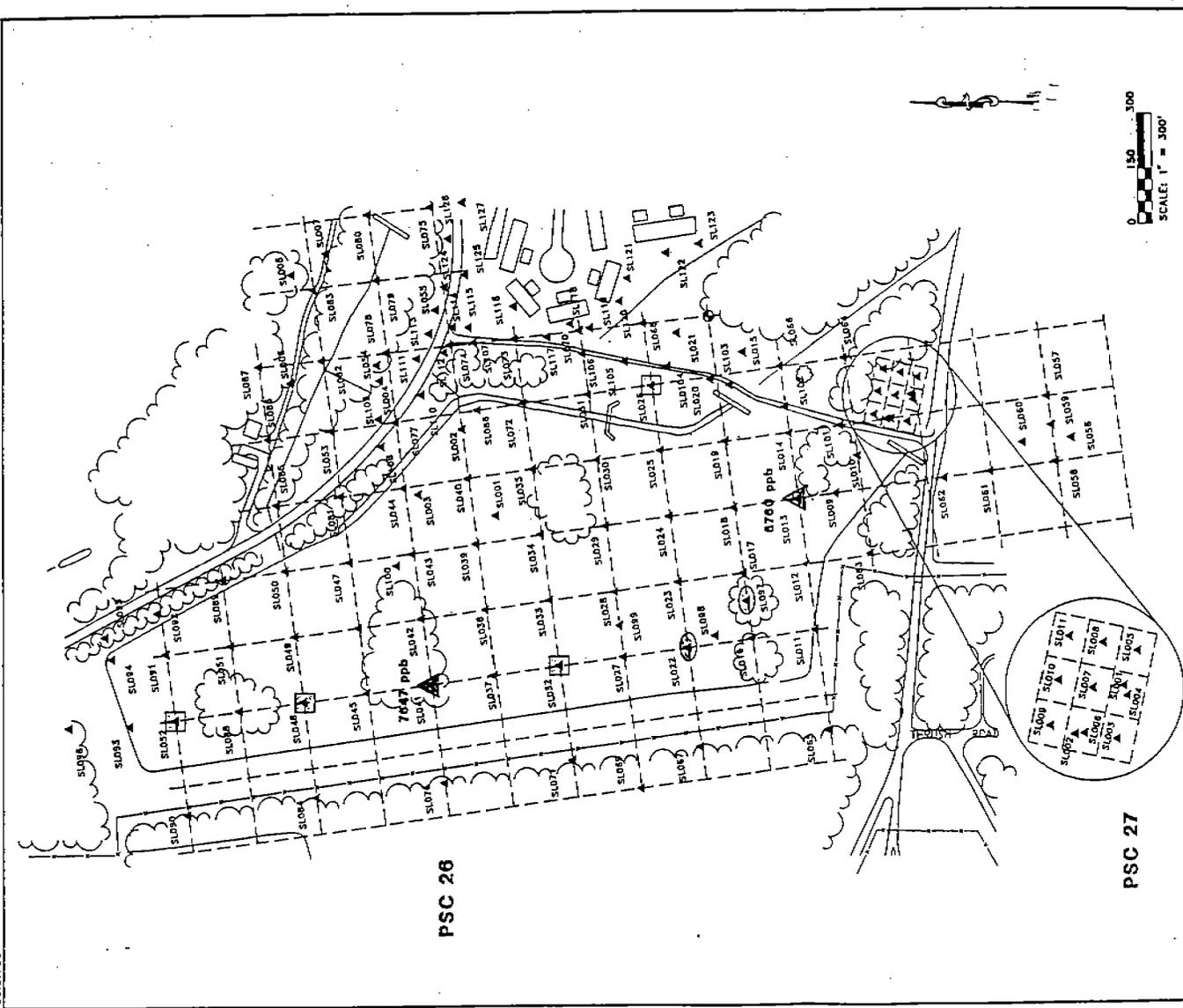
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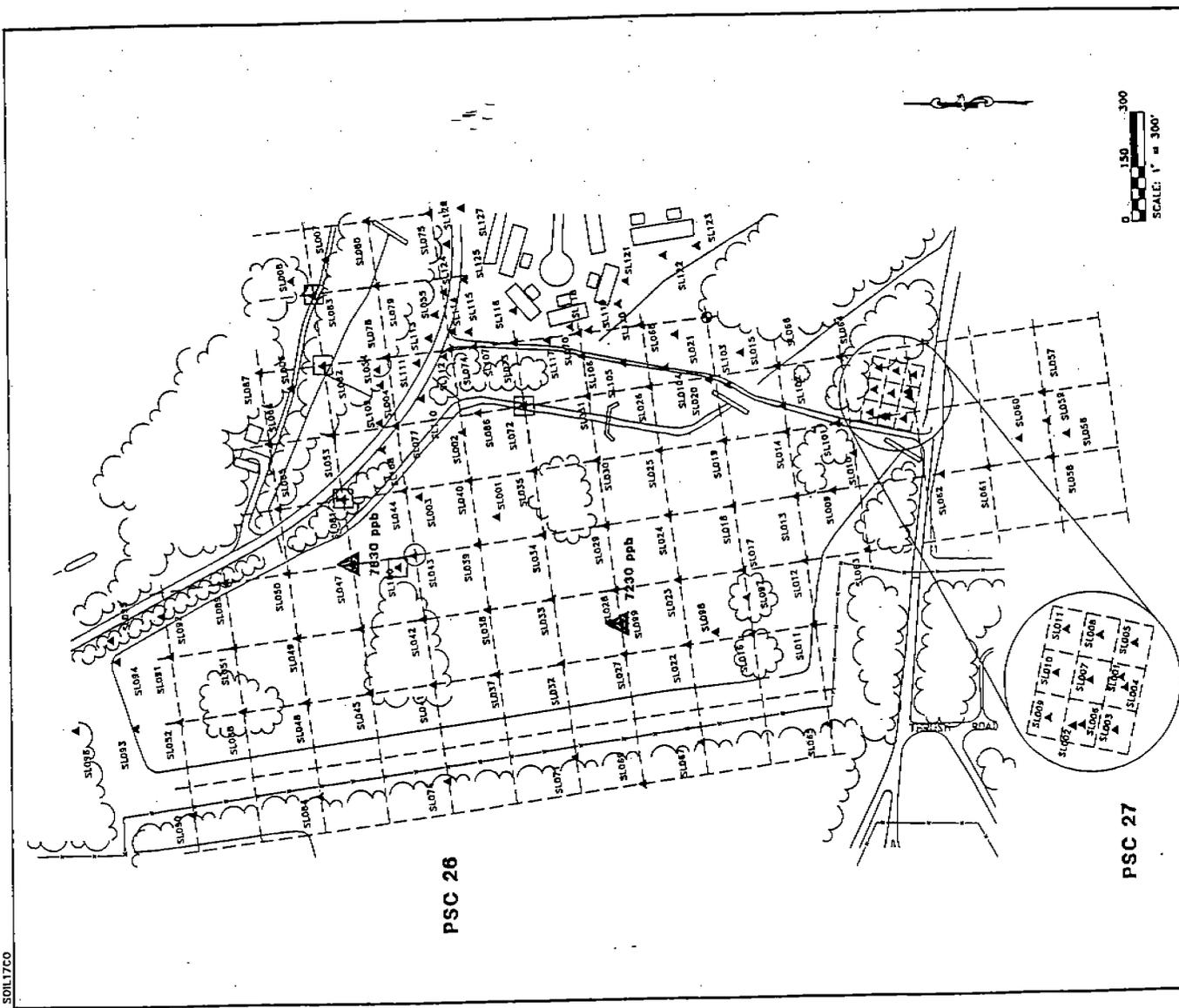
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 1-2000 ppb
- 2000-4000 ppb
- 4000-6000 ppb
- ▲ >6000 ppb

FIGURE P-5.16
TOTAL PAH'S DETECTED
IN SOIL SAMPLES 1'-4'



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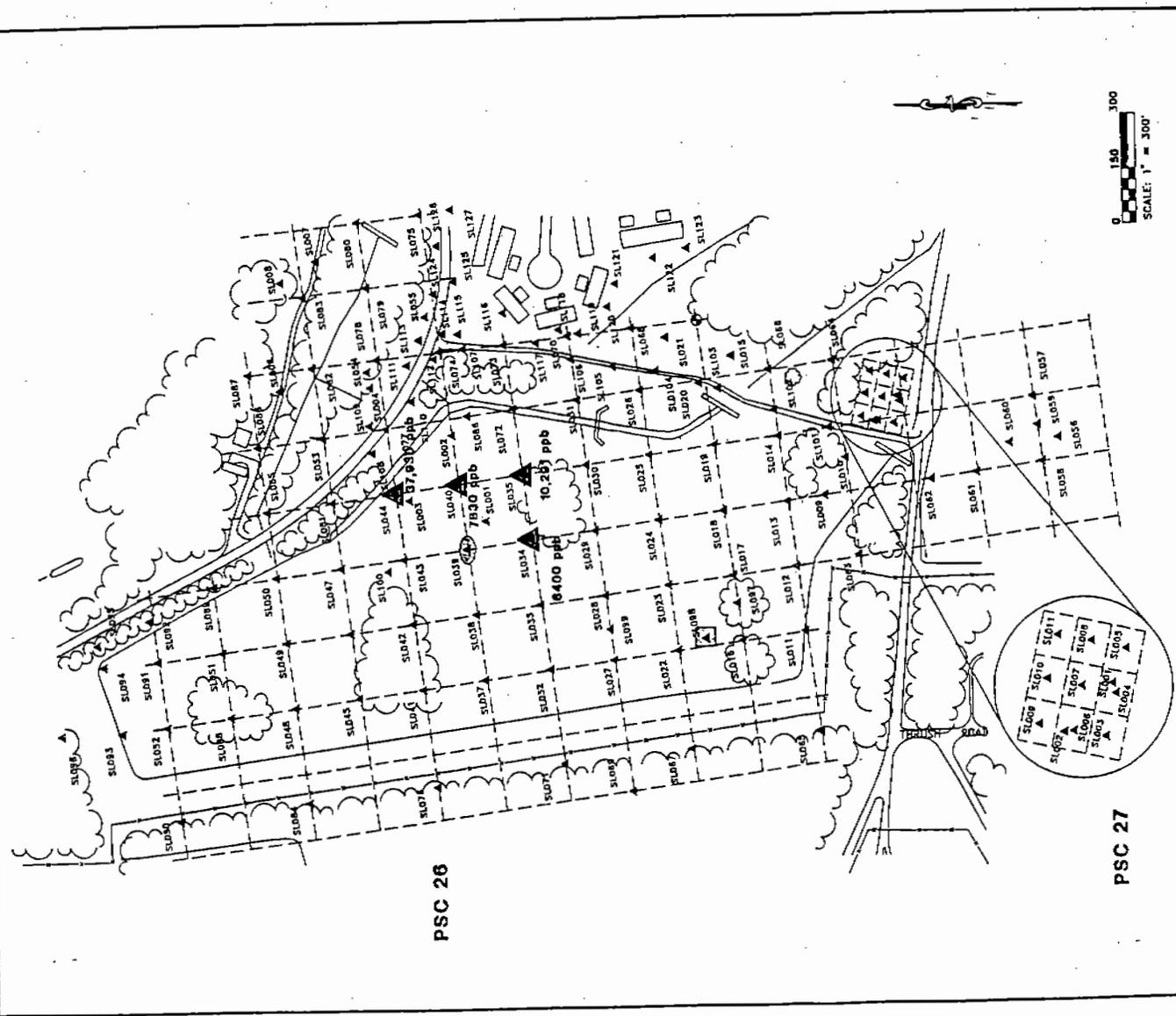
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 1-2000 ppb
- 2000-4000 ppb
- 4000-6000 ppb
- ▲ > 6000 ppb

FIGURE P-5.17
TOTAL PAH'S DETECTED
IN SOIL SAMPLES 4'-7'

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LEGEND

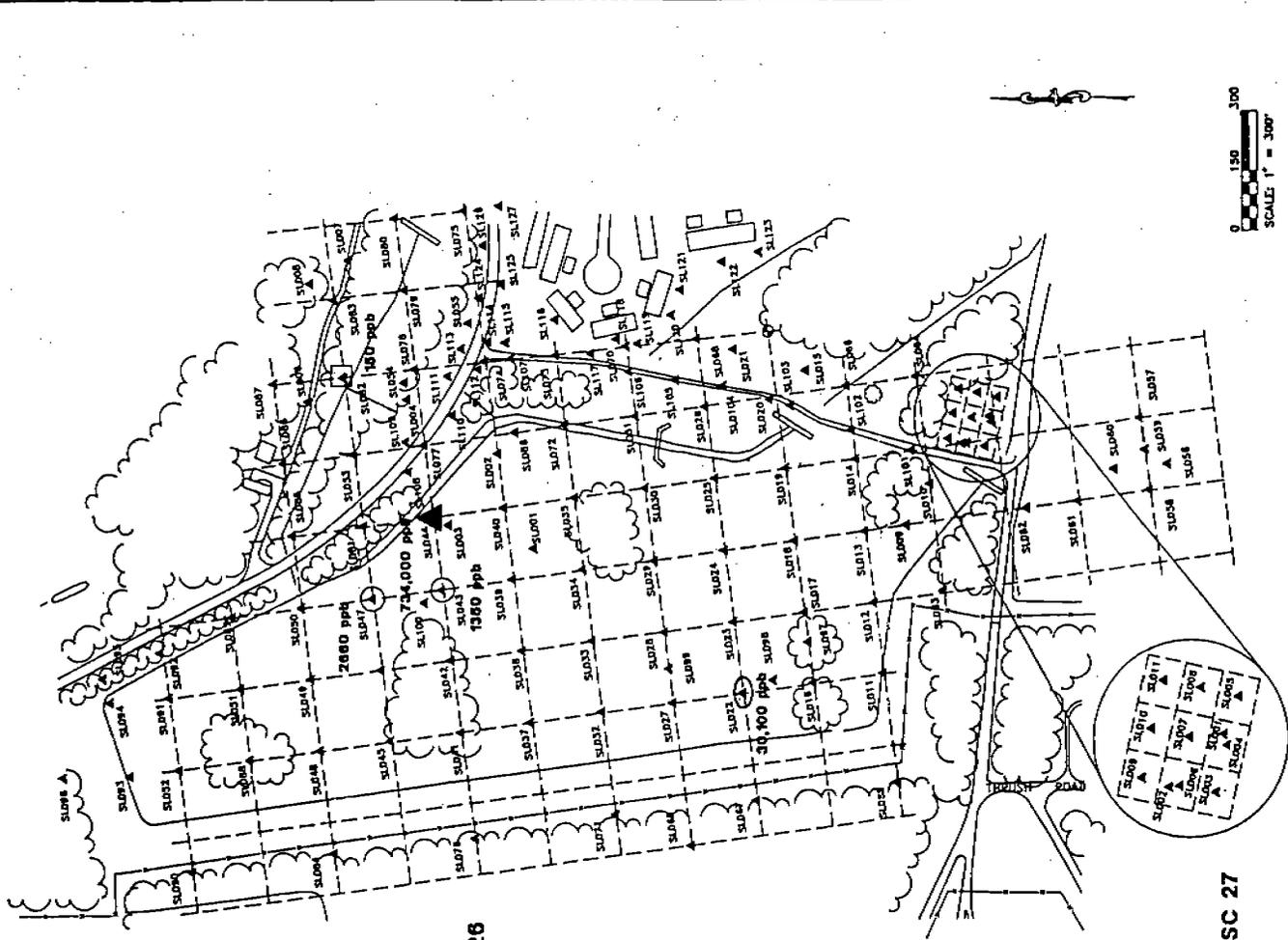
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 1-2000 ppb
- 2000-4000 ppb
- 4000-6000 ppb
- >6000 ppb



FIGURE P-5.18
TOTAL PAH'S DETECTED
IN SOIL SAMPLES 7'-12'

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LEGEND

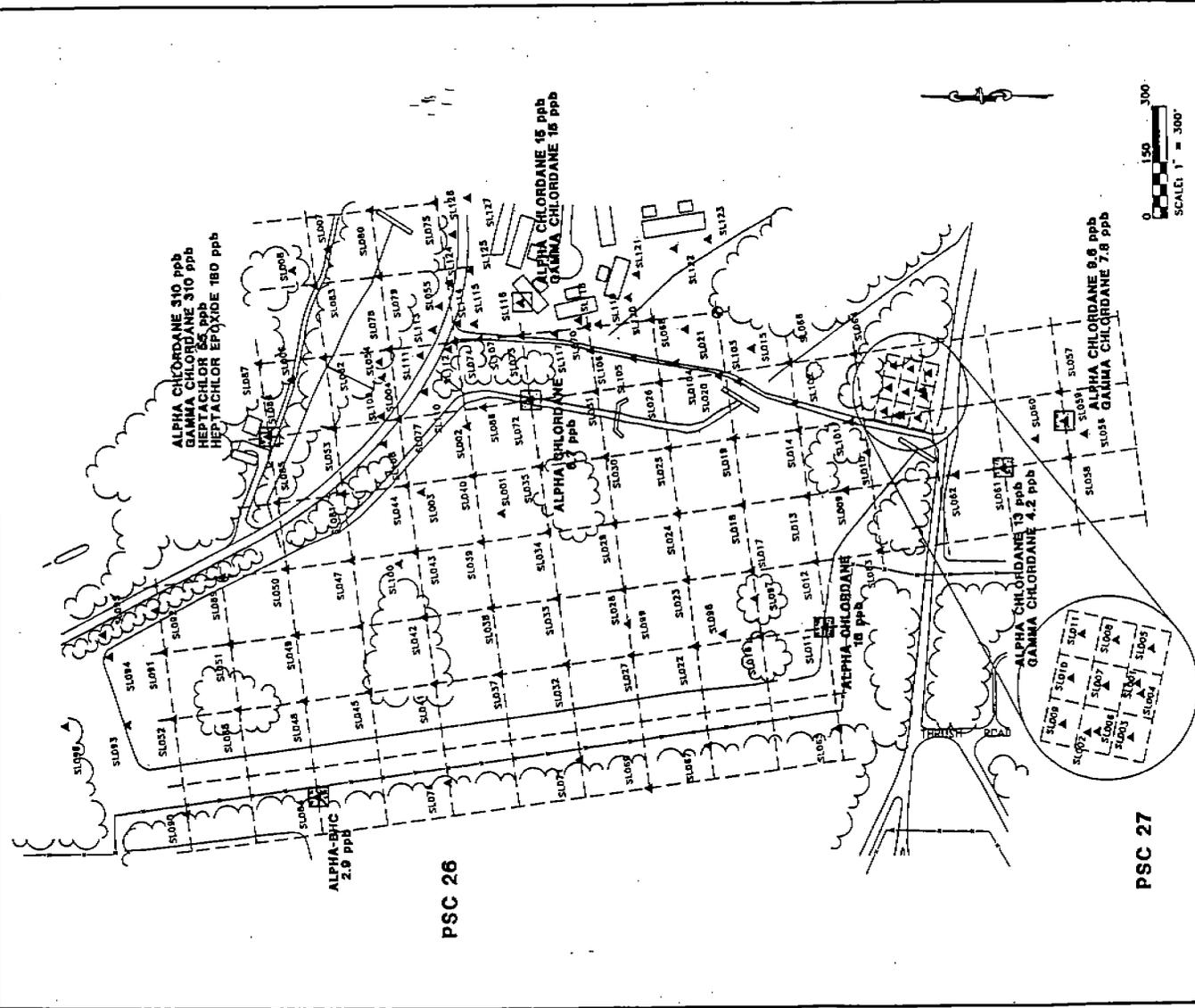
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0'-3'
- 1'-4'
- 4'-7'
- 7'-12'

FIGURE P-5.10
PHENOLS (TOTAL) DETECTED
IN SOIL SAMPLES

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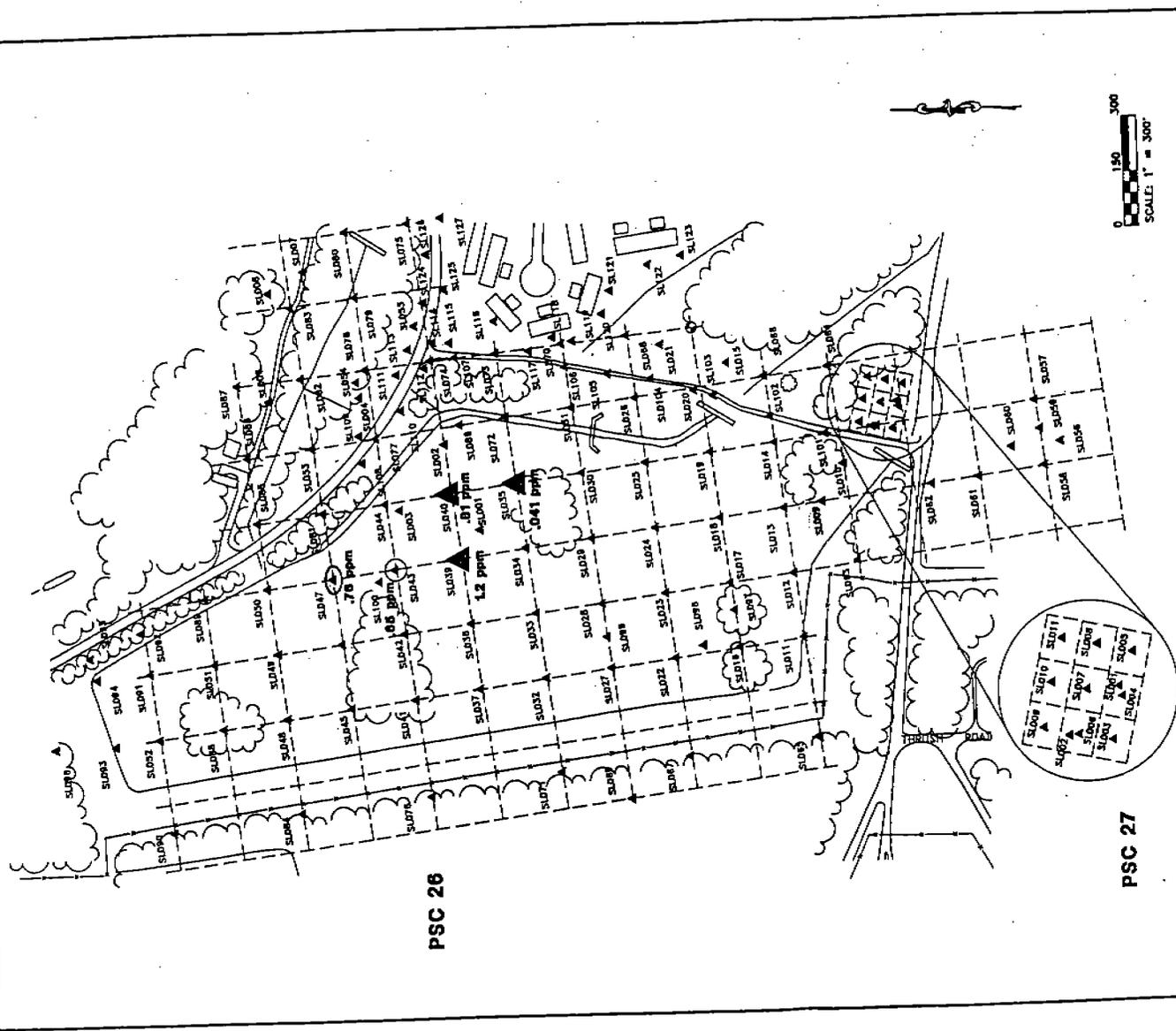
LEGEND

- ⊕ — BENCHMARK
- ▲ — SOIL SAMPLE LOCATION
- — 0'-3'

FIGURE P-5.20
PESTICIDES(MISC.)
DETECTED IN SOIL SAMPLES

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LEGEND

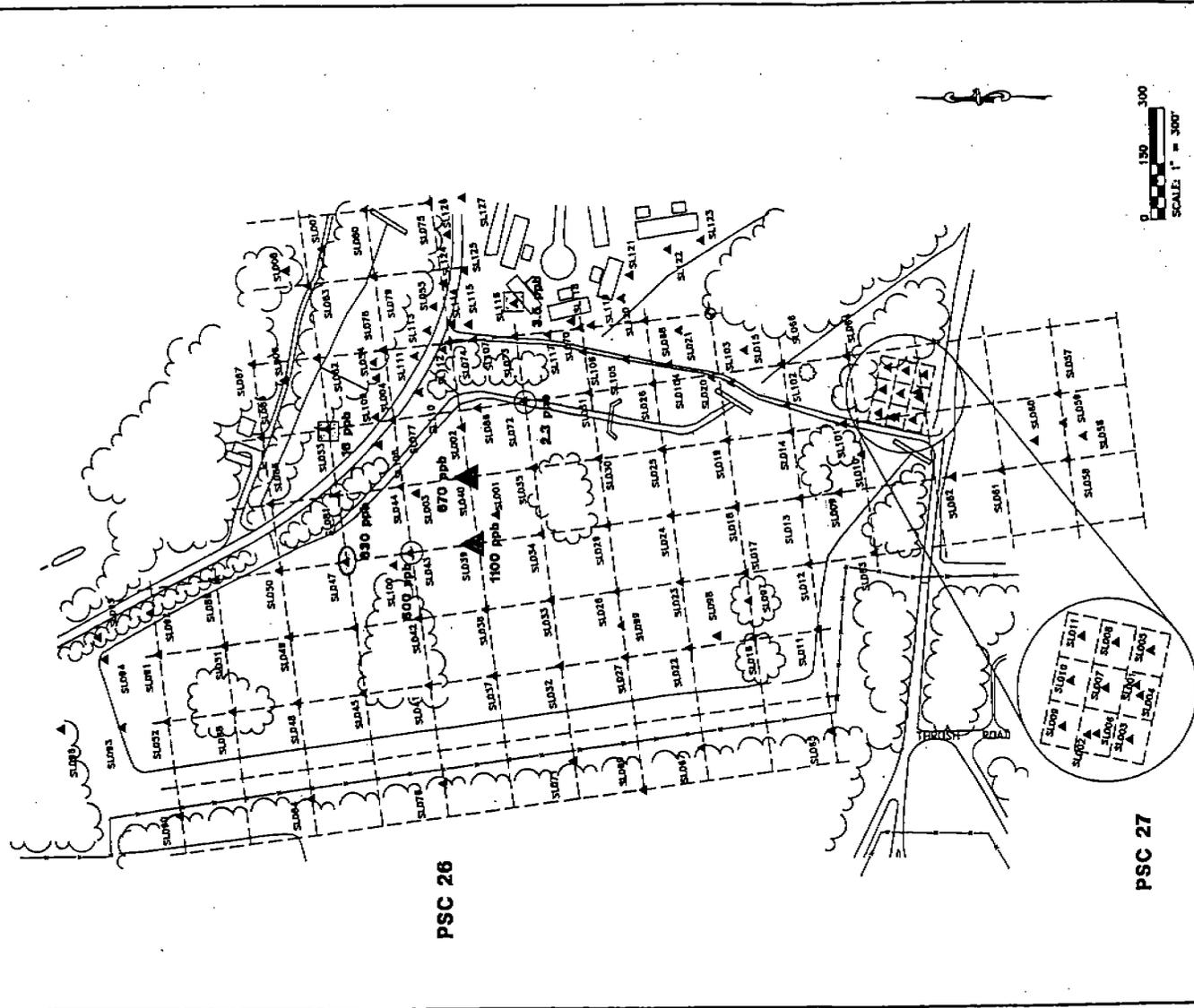
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0'-3"
- 1'-4"
- 4'-7"
- 7'-12"

FIGURE P-5.21
ENDRIN DETECTED IN SOIL
SAMPLES

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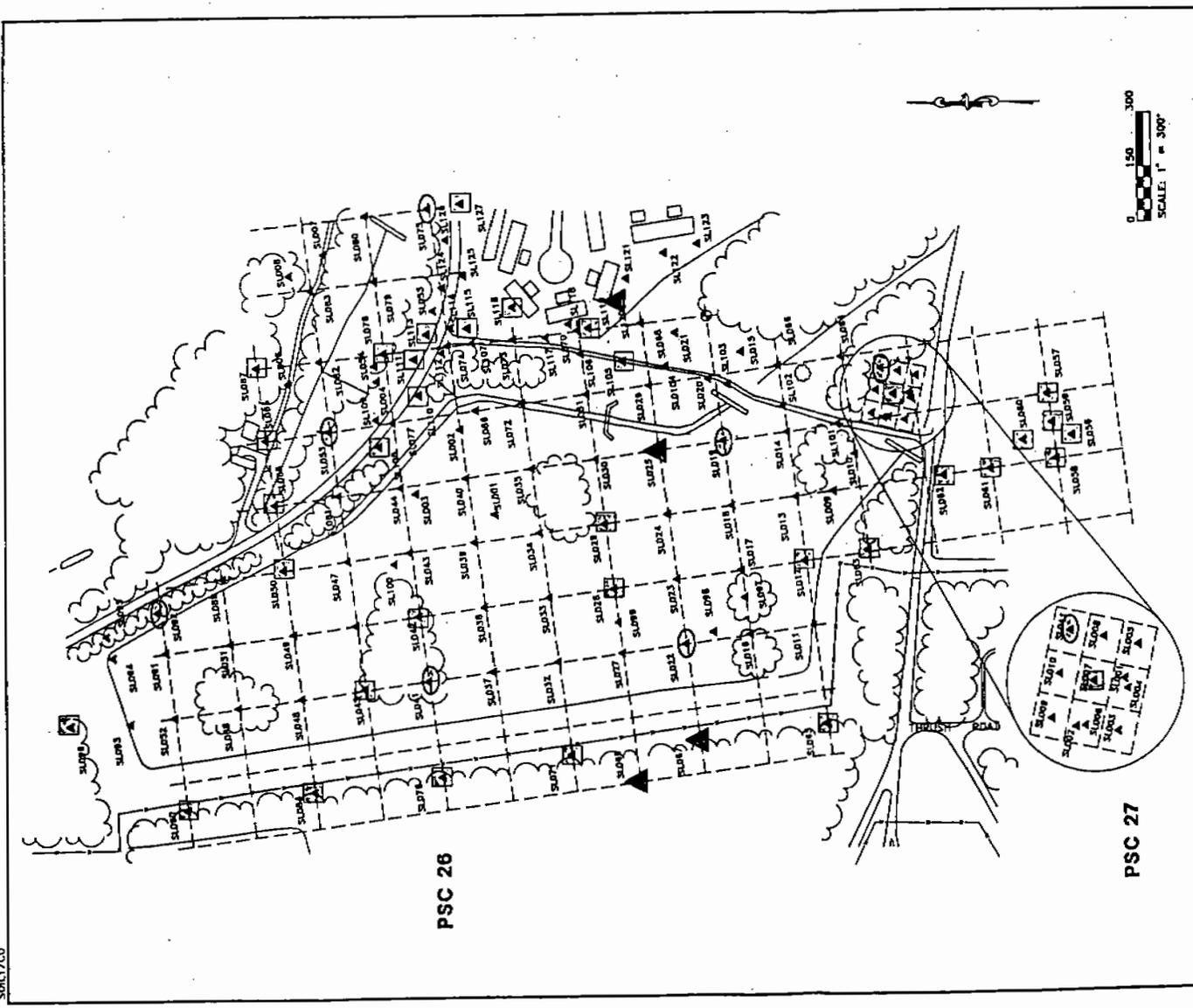
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0'-3'
- 1'-4'
- 4'-7'
- ▲ 7'-12'

FIGURE P-5.22
ALDRIN DETECTED IN SOIL
SAMPLES

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LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- <100 ppb
- 100-1000 ppb
- 1000-1900 ppb
- ▲ >1900 ppb

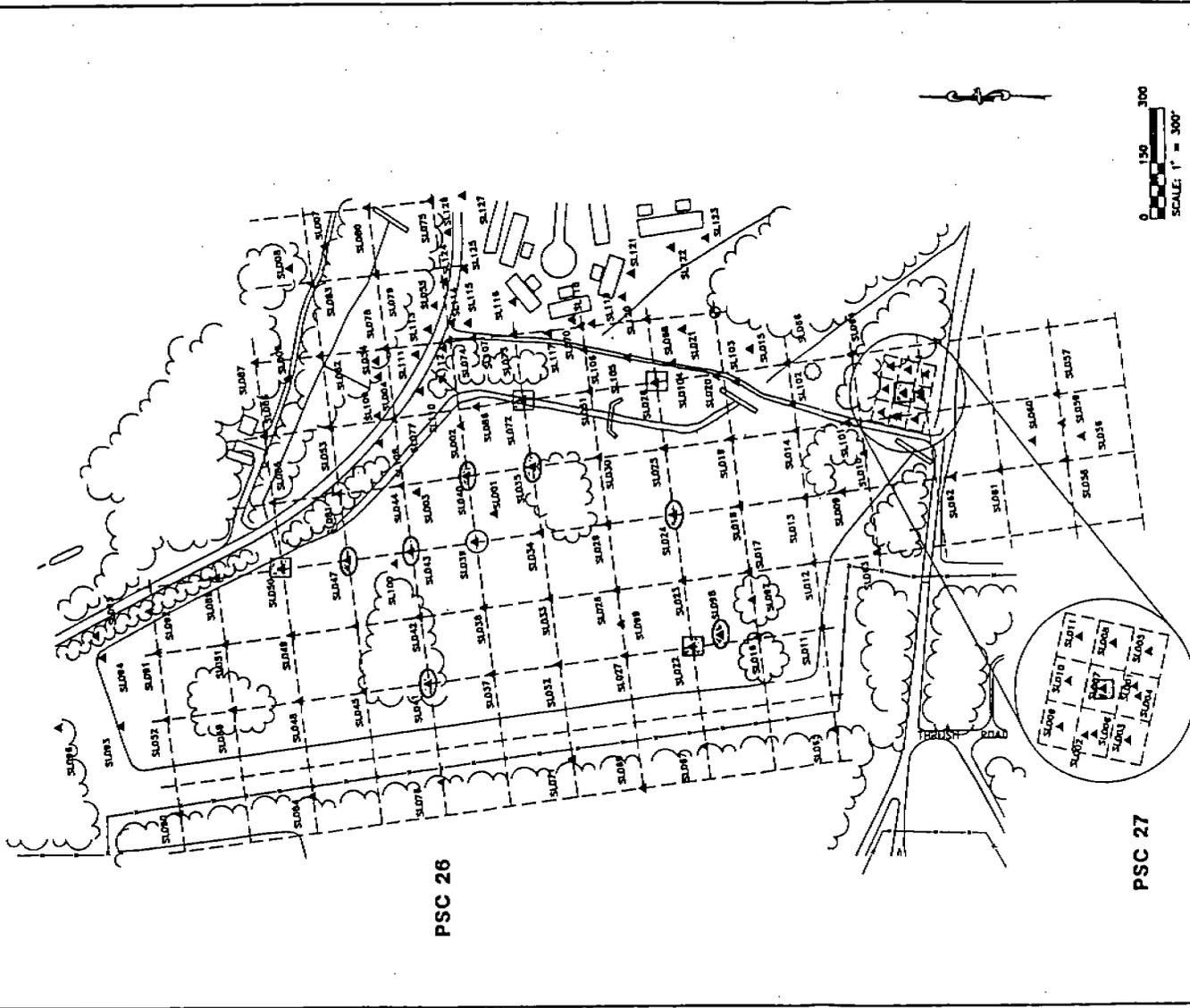
FIGURE P-5.23
TOTAL DDD, DDE, AND DDT
DETECTED IN SOIL SAMPLES
0'-25'

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LEGEND

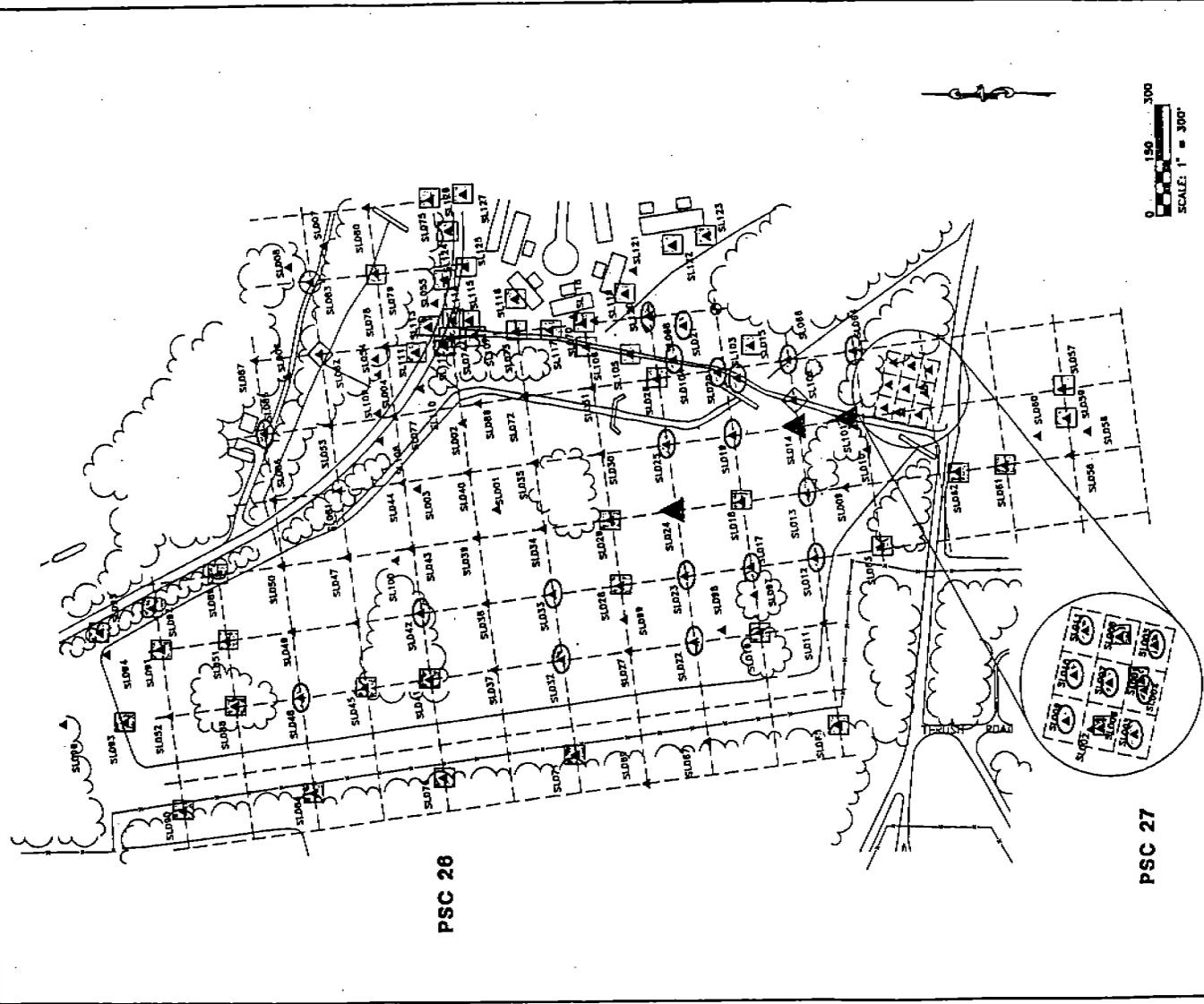
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- <100 ppb
- 100-1000 ppb
- 1000-1900 ppb
- ▲ >1900 ppb

FIGURE P-5.24
TOTAL DDD, DDE, AND DDT
DETECTED IN SOIL SAMPLES
2'-12'

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LEGEND

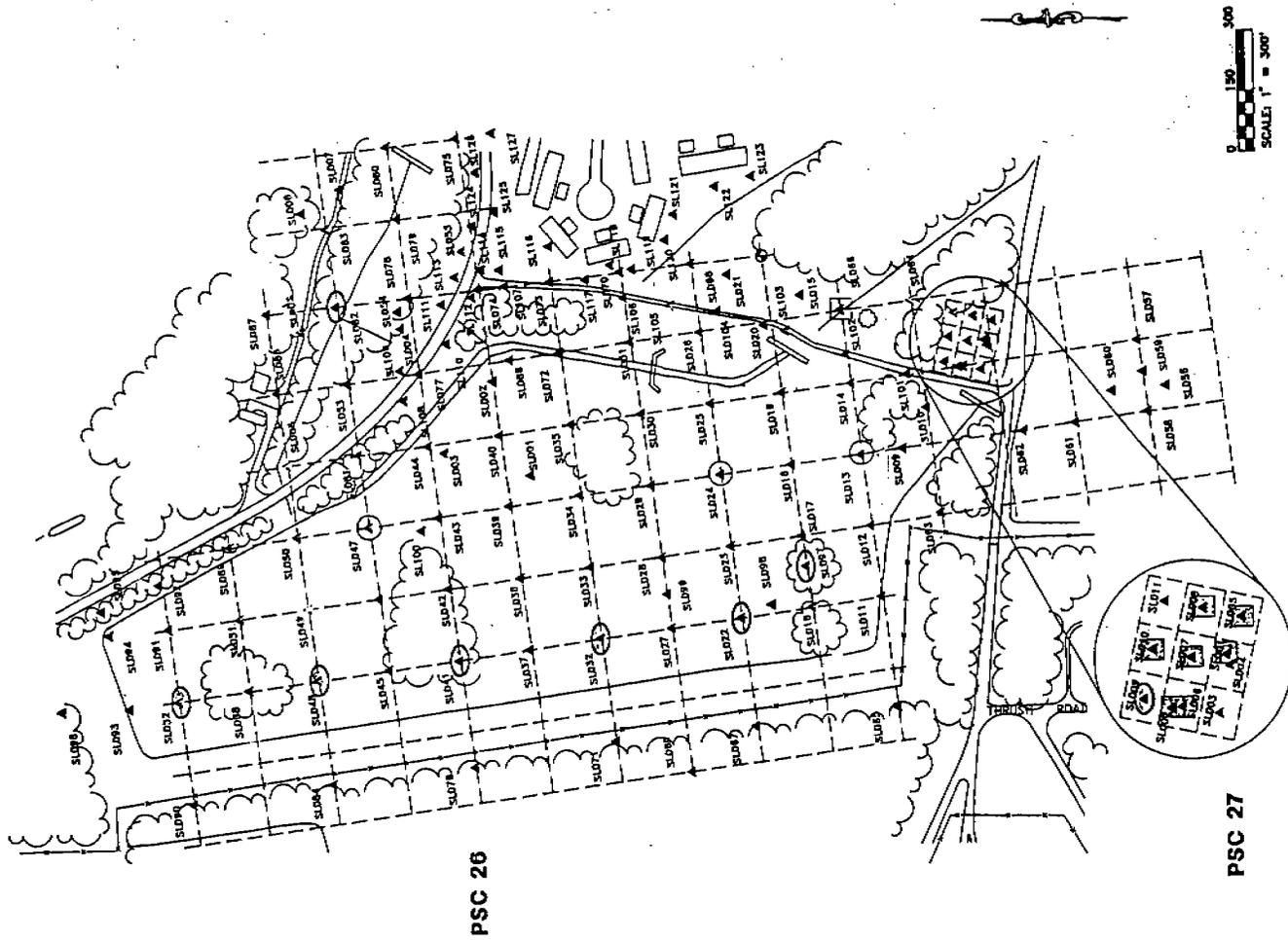
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- <1 ppm
- 1-10 ppm
- 10-25 ppm
- 25-50 ppm
- >50 ppm

FIGURE P-5.25
PCB'S DETECTED IN
SOIL SAMPLES 0'-25'



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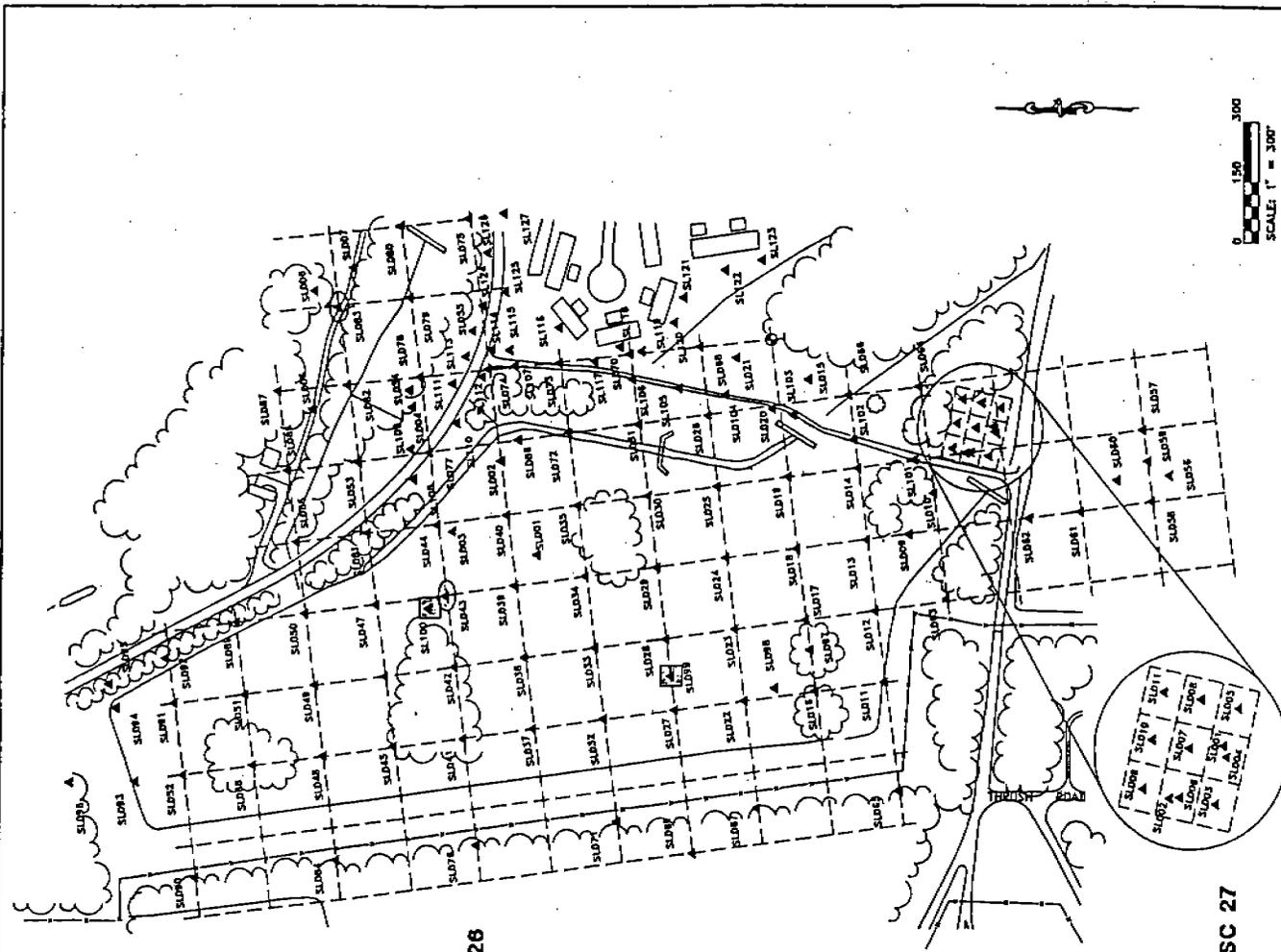
LEGEND

- — BENCHMARK
- ▲ — SOIL SAMPLE LOCATION
- ▭ — <1 ppm
- — 1-10 ppm
- — 10-25 ppm
- ▲ — 25-50 ppm
- ◇ — >50 ppm

FIGURE P-5.26
PCB'S DETECTED IN
SOIL SAMPLES 1'-4'

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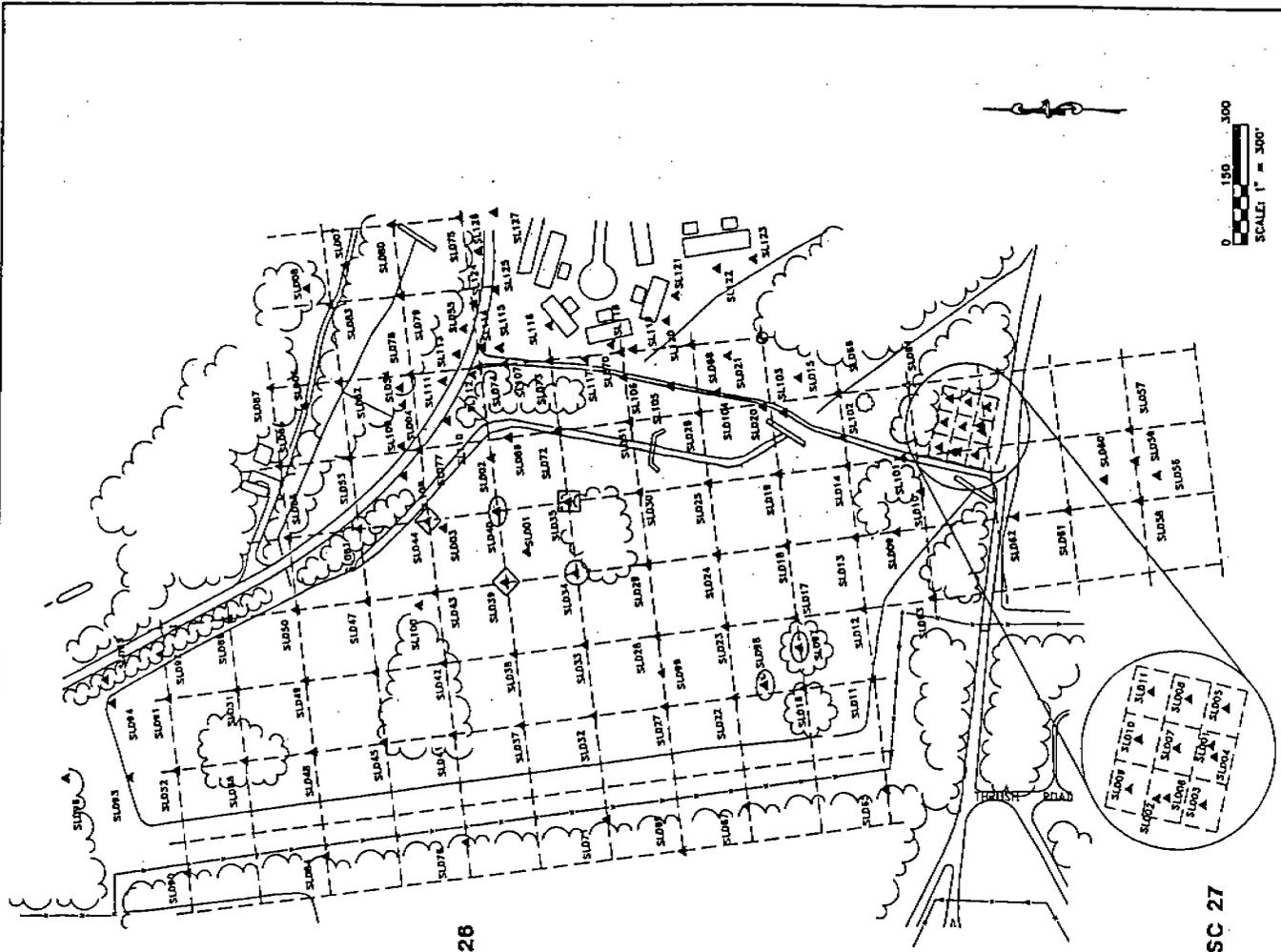
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- < 1 ppm
- 1-10 ppm
- 10-25 ppm
- ▲ 25-50 ppm
- ◇ > 50 ppm

FIGURE P-5.27
PCB'S DETECTED IN
SOIL SAMPLES 4'-7'

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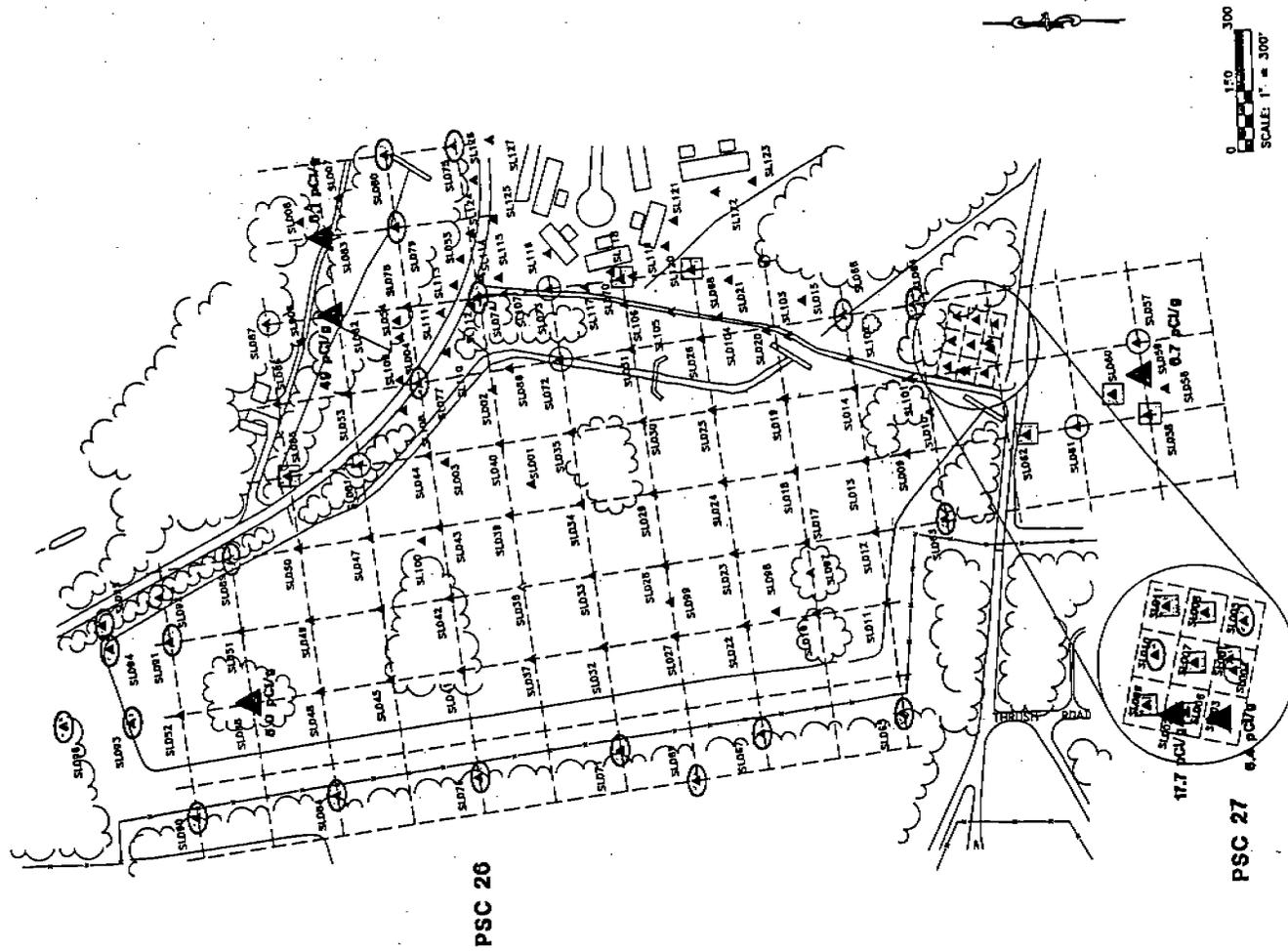
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FIGURE P-5.28
PCB'S DETECTED IN
SOIL SAMPLES 7'-12'



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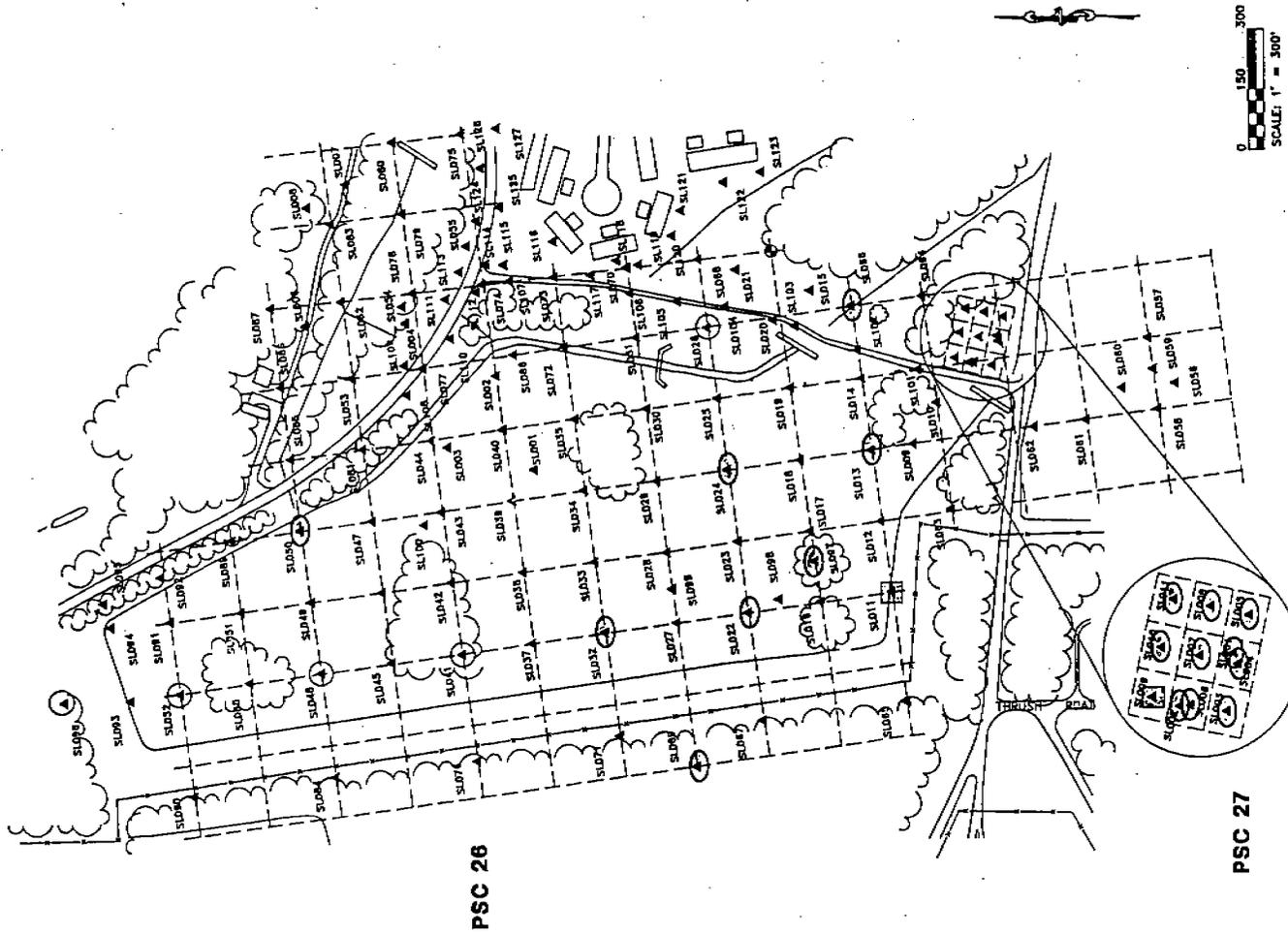
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LEGEND

- — BENCHMARK
- ▲ — SOIL SAMPLE LOCATION
- — 0-1.5 pCi/g
- — 1.5-3.0 pCi/g
- — 3.0-4.5 pCi/g
- ▲ — >4.5 pCi/g

FIGURE P-5.29
GROSS ALPHA AND RADIUM 226 (TOTAL) DETECTED IN SOIL SAMPLES 0" - 3"

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LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- ◻ 0-1.5 pCi/g
- ◻ 1.5-3.0 pCi/g
- ◻ 3.0-4.5 pCi/g
- ◻ >4.5 pCi/g



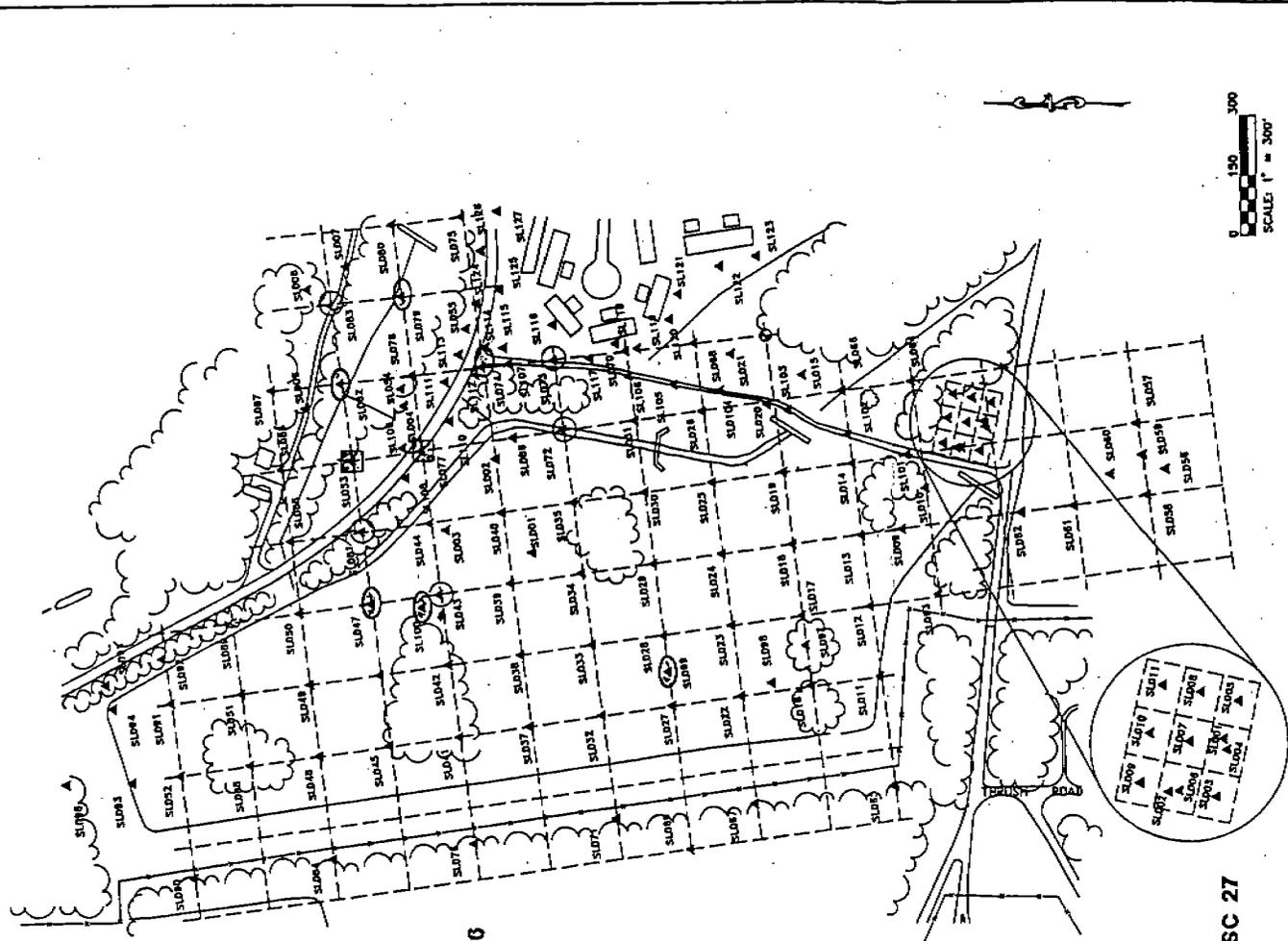
FIGURE P-5.30
GROSS ALPHA AND
RADIUM 226 (TOTAL) DETECTED
IN SOIL SAMPLES 1' - 4'

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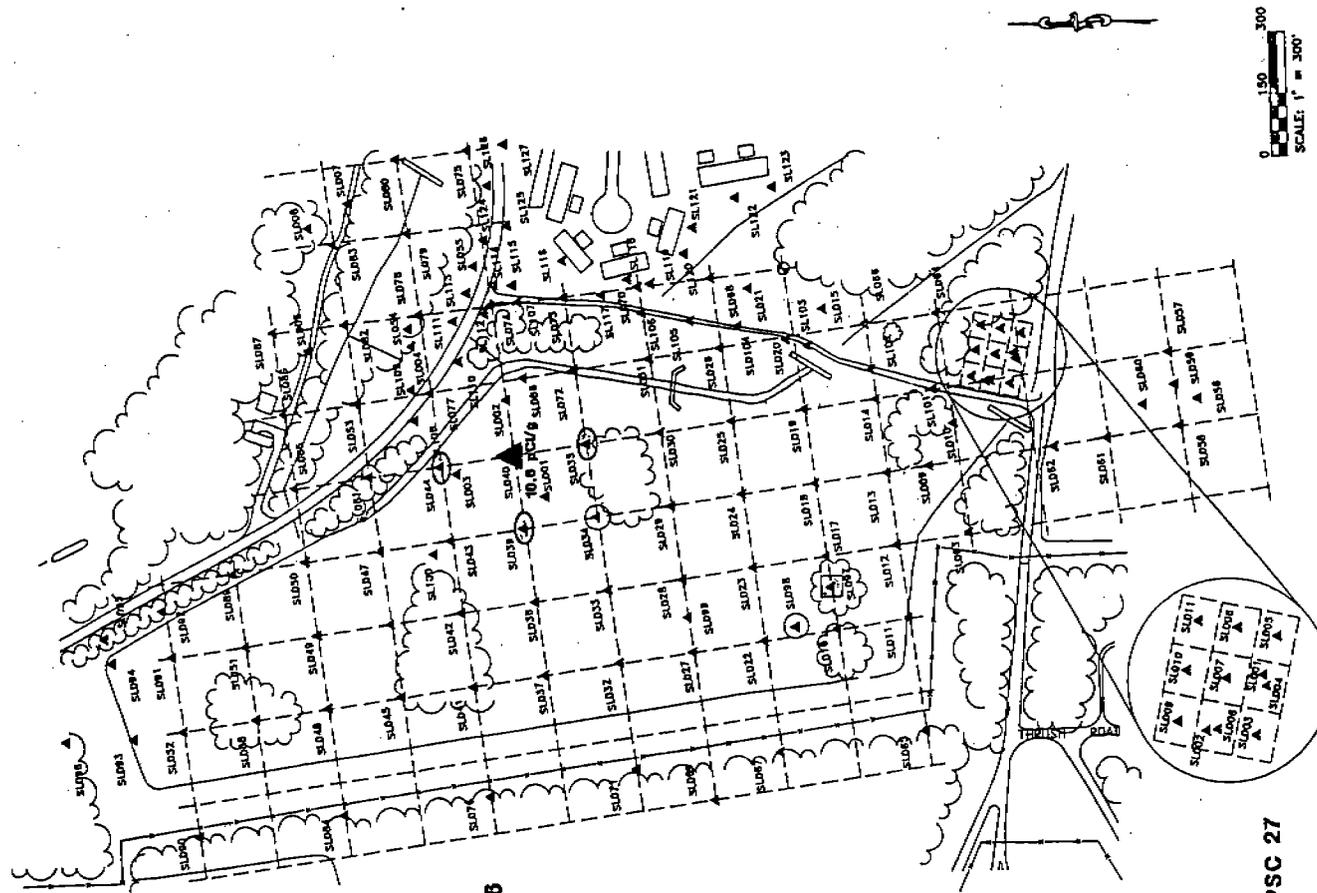
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LEGEND

- — BENCHMARK
- ▲ — SOIL SAMPLE LOCATION
- ◻ — 0-1.5 pci/g
- ◐ — 1.5-3.0 pci/g
- ◑ — 3.0-4.5 pci/g
- ◒ — >4.5 pci/g

FIGURE P-5.31
GROSS ALPHA AND RADIUM 226 (TOTAL) DETECTED IN SOIL SAMPLES 4' - 7'

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LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0-1.5 pCi/g
- 1.5-3.0 pCi/g
- 3.0-4.5 pCi/g
- ▲ >4.5 pCi/g

FIGURE P-5.32
GROSS ALPHA AND
RADIUM 226 (TOTAL) DETECTED
IN SOIL SAMPLES 7' - 12'

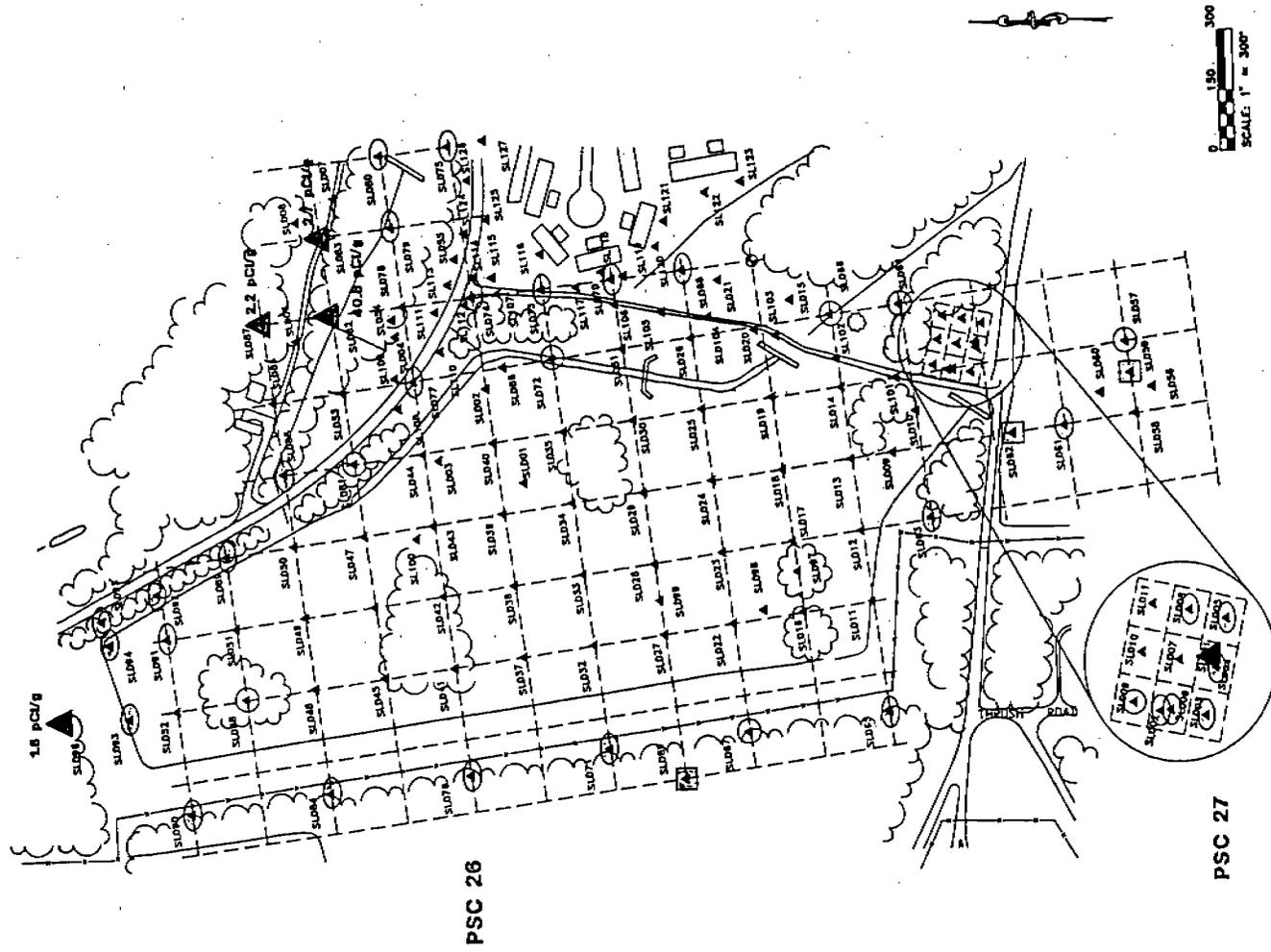


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LEGEND

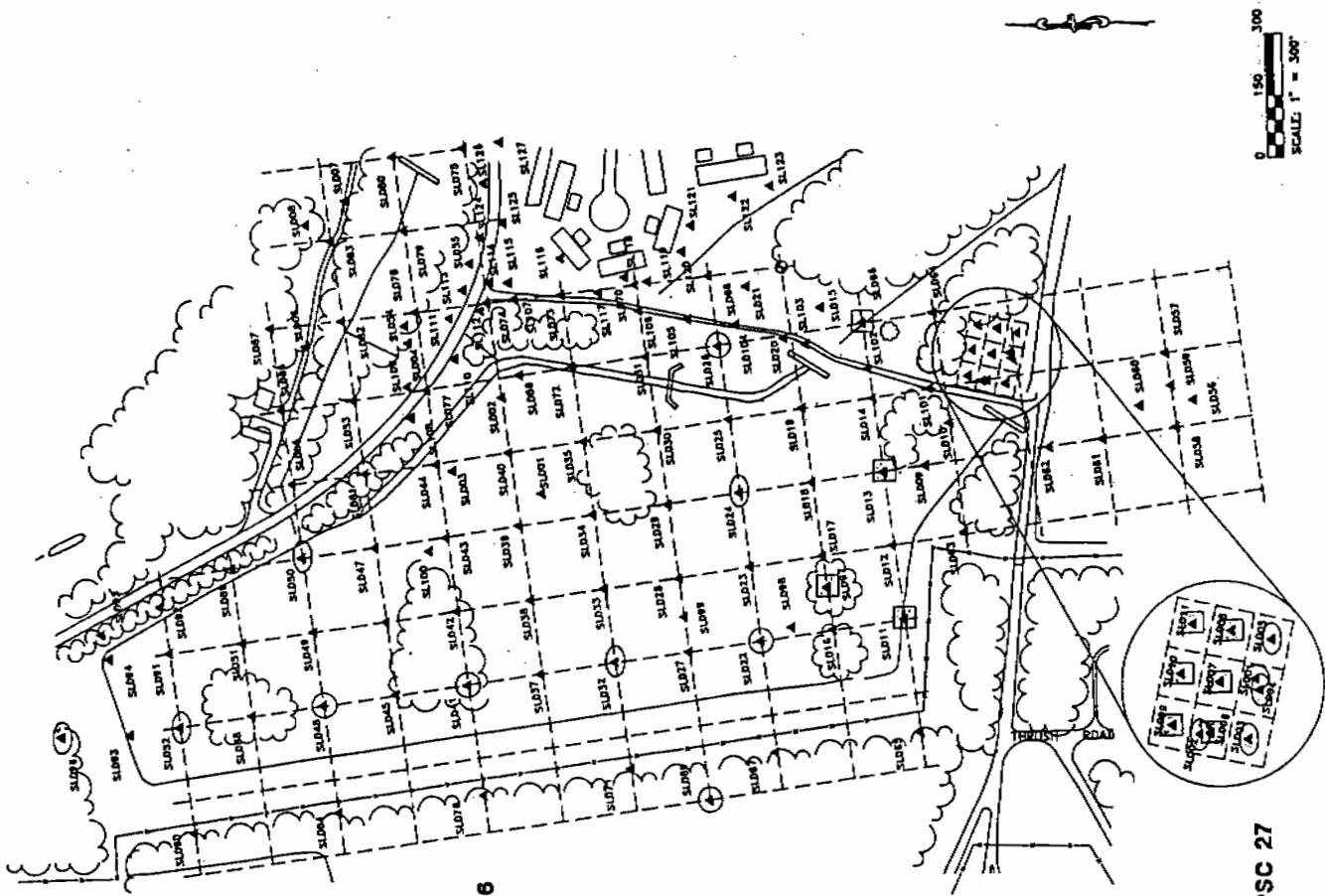
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0-0.5 pCi/g
- 0.5-1.0 pCi/g
- 1.0-1.5 pCi/g
- ▲ >1.5 pCi/g

FIGURE P-5.33
RADIUM 226 AND
RADIUM 228 (TOTAL) DETECTED
IN SOIL SAMPLES 0" - 3"

**REMEDIAL INVESTIGATION/
 FEASIBILITY STUDY FOR
 OPERABLE UNIT 1**

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 JACKSONVILLE, FLORIDA**





PSC 26

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LEGEND

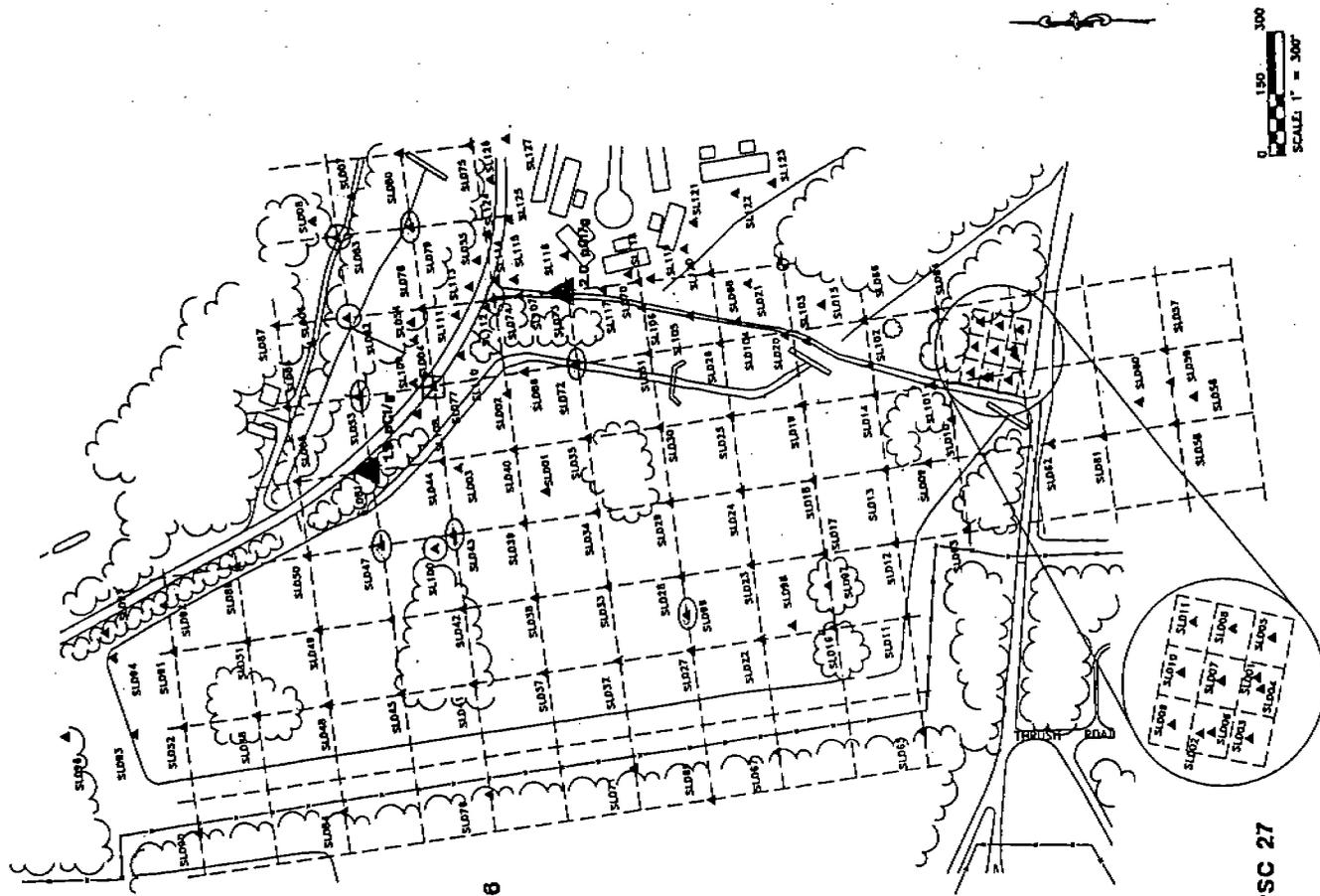
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- ◻ 0-0.5 pCi/g
- ◯ 0.5-1.0 pCi/g
- ◌ 1.0-1.5 pCi/g
- ◄ >1.5 pCi/g

FIGURE P-5.34
RADIUM 226 AND
RADIUM 228 (TOTAL) DETECTED
IN SOIL SAMPLES 1' - 4'

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- SOIL SAMPLE LOCATION
- ▲ BENCHMARK
- 0-0.5 pci/g
- 0.5-1.0 pci/g
- 1.0-1.5 pci/g
- >1.5 pci/g

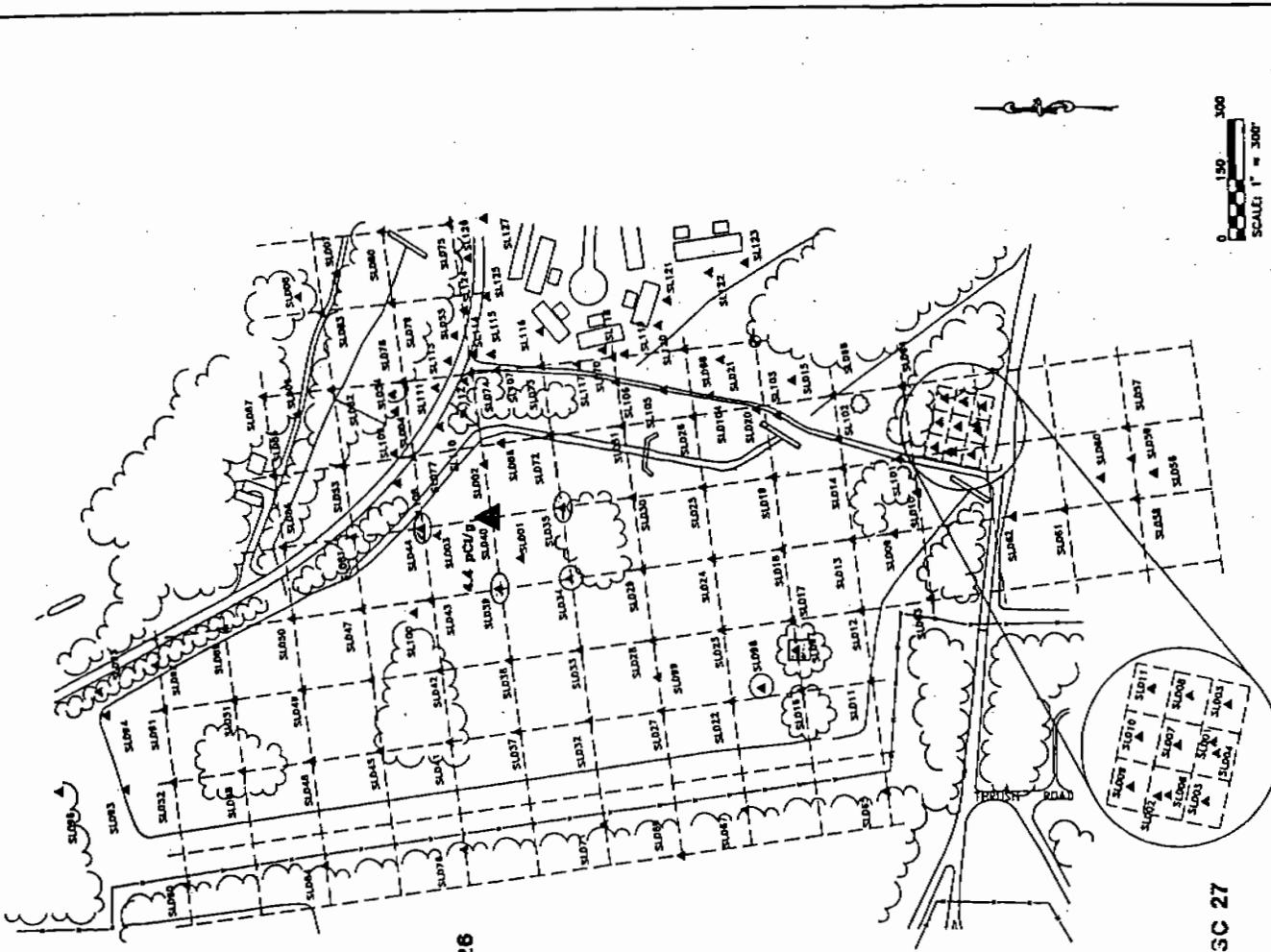
FIGURE P-5.35
RADIUM 226 AND
RADIUM 226 (TOTAL) DETECTED
IN SOIL SAMPLES 4' - 7'

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LEGEND

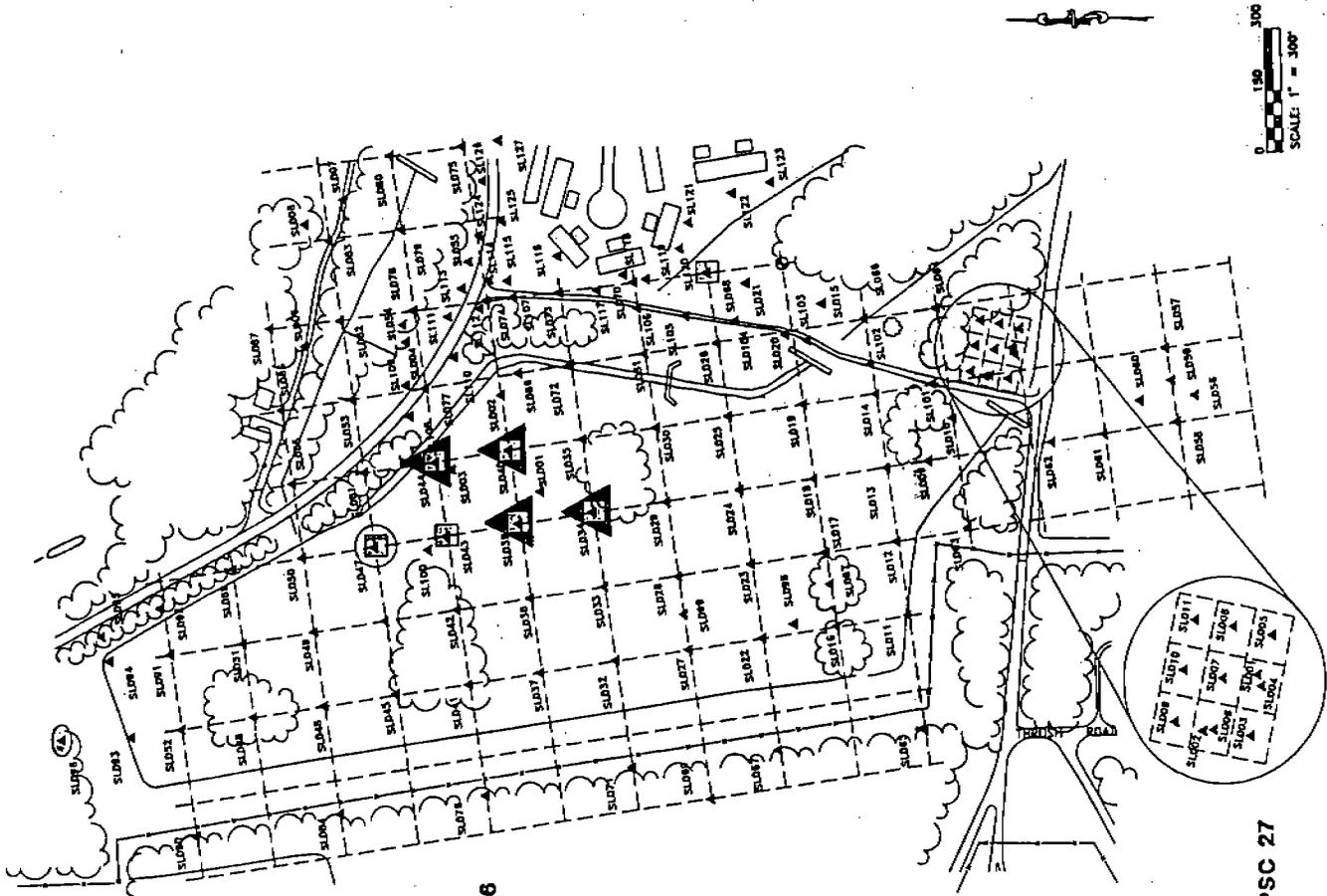
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0-0.5 pCi/g
- 0.5-1.0 pCi/g
- 1.0-1.5 pCi/g
- ▲ >1.5 pCi/g

FIGURE P-5.36
RADIUM 226 AND
RADIUM 228 (TOTAL) DETECTED
IN SOIL SAMPLES 7' - 12'



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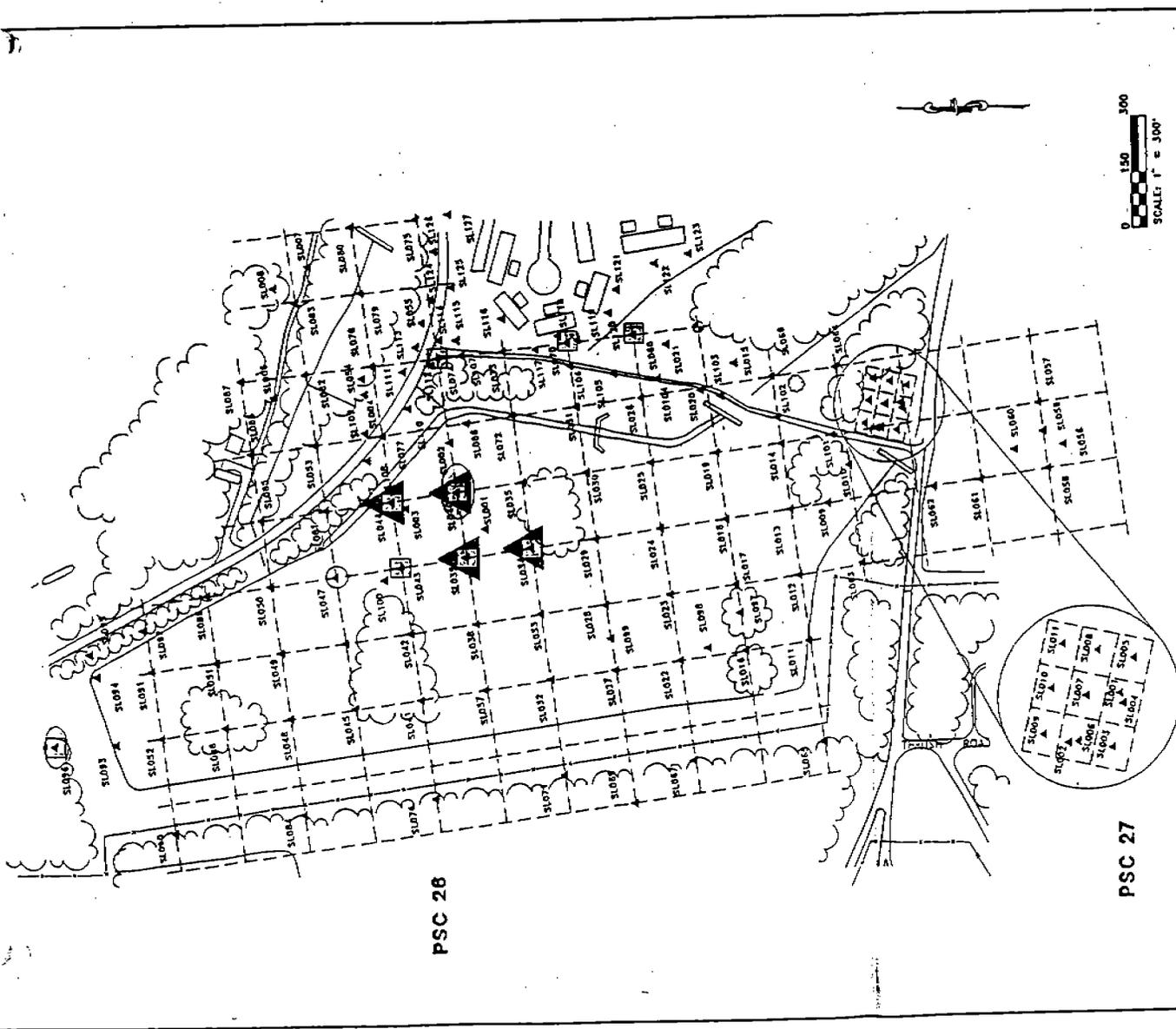
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0'-3'
- 1'-4'
- △ 4'-7'
- ◇ 7'-12'

FIGURE P-5.37
DIOXINS AND FURANS
HpCDD's (TOTAL)
DETECTED IN SOIL SAMPLES

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 FEASIBILITY STUDY FOR
 OPERABLE UNIT 1**

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LEGEND

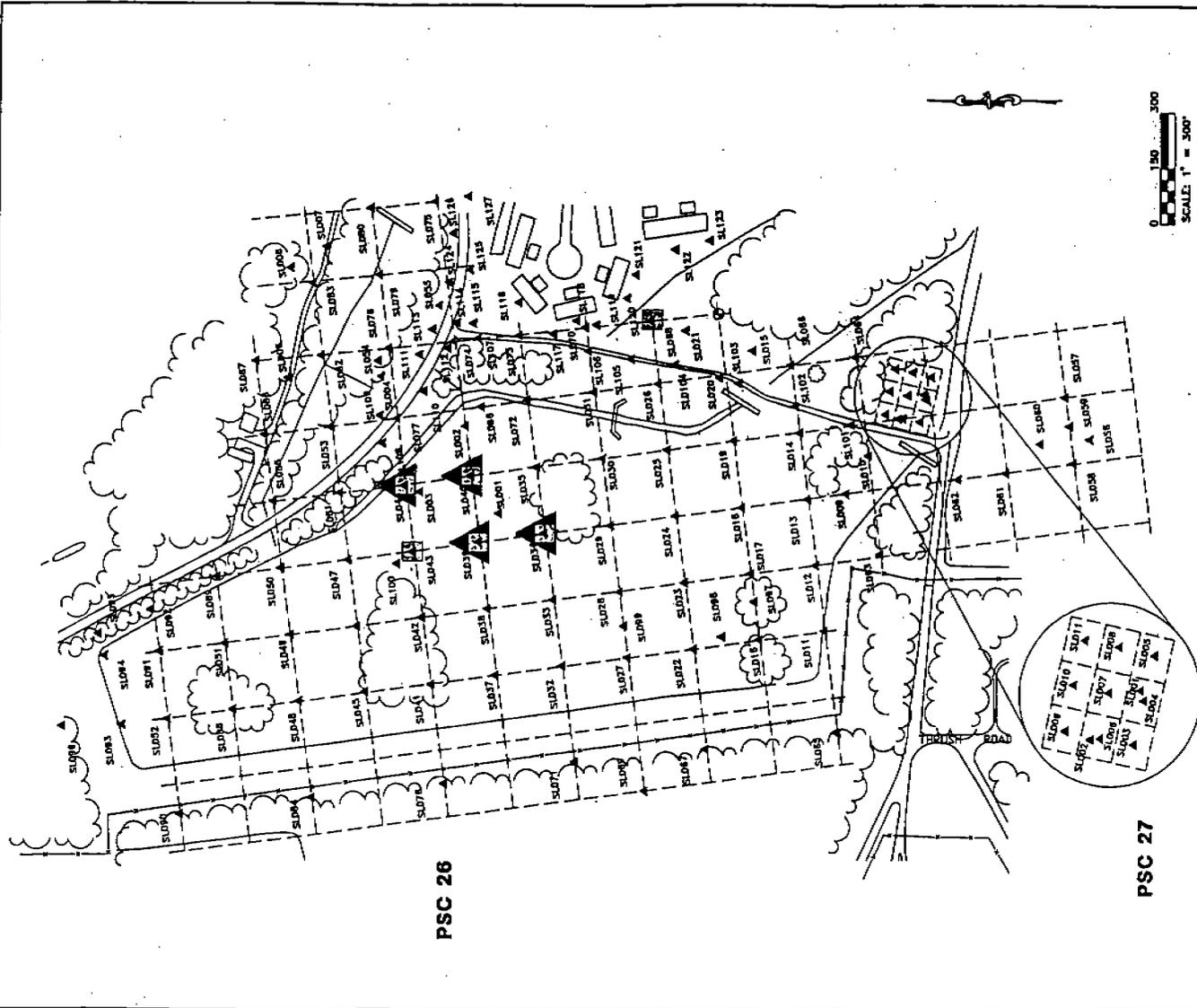
- — BENCHMARK
- ▲ — SOIL SAMPLE LOCATION
- — 0-3
- ⊖ — 1-4
- — 4-7
- ▲ — 7-12

FIGURE P-5.38
DIOXINS AND FURANS
OCDD
DETECTED IN SOIL SAMPLES

REMEDIAL INVESTIGATION/
 FEASIBILITY STUDY FOR
 OPERABLE UNIT 1

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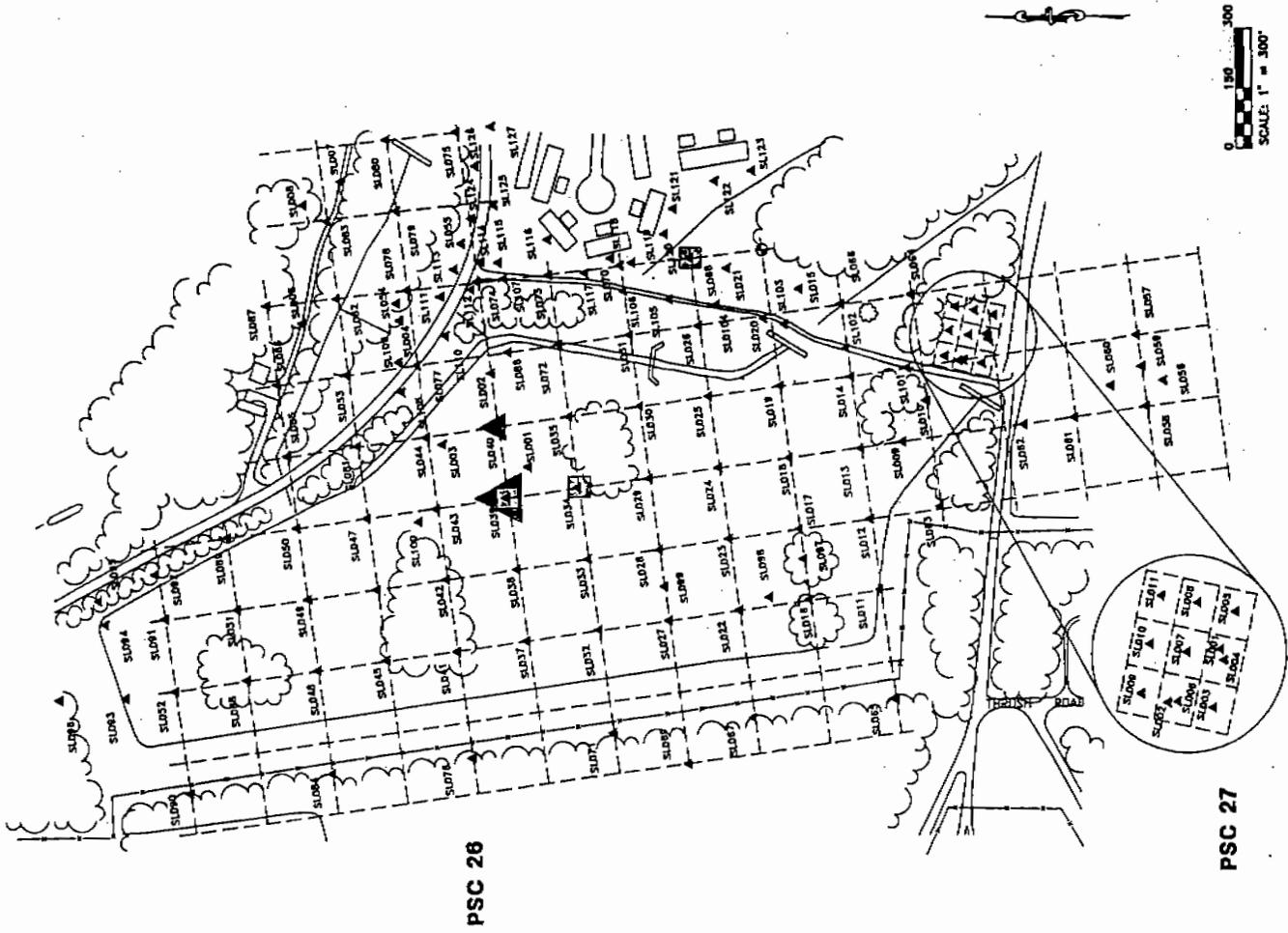
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- ⊠ 0'-3"
- ⊙ 1'-4"
- ⊙ 4'-7"
- ▲ 7'-12"

FIGURE P-5.39
DIOXINS AND FURANS
1,2,3,4,6,7,8 HpCDD
DETECTED IN SOIL SAMPLES

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LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- ▢ 0'-3'
- 1'-4'
- 4'-7'
- ▲ 7'-12'

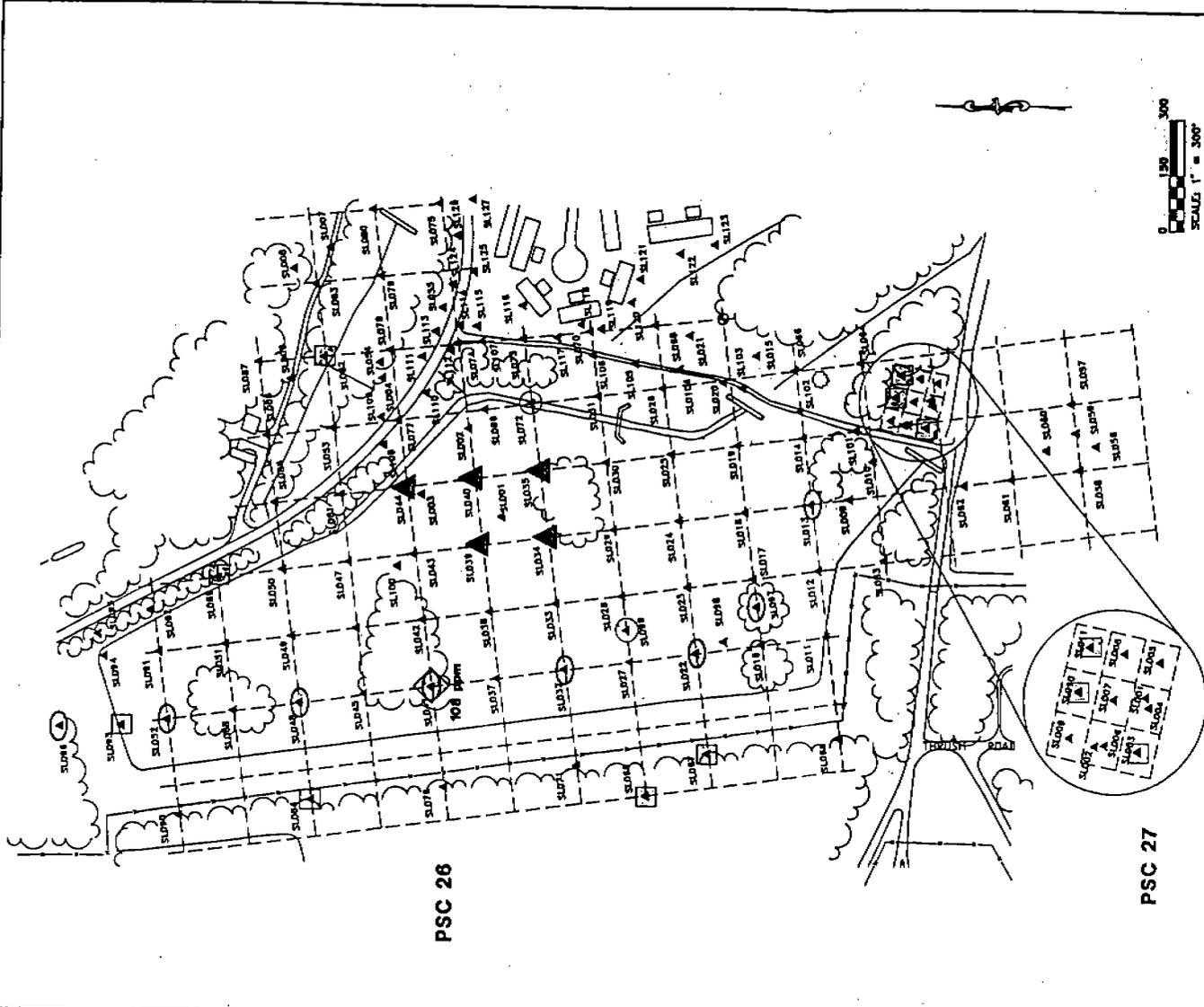
FIGURE P-5.40
DIOXINS AND FURANS
1,2,3,4,6,7,8 HpCDF
DETECTED IN SOIL SAMPLES

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LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0-3
- 1-4
- 4-7
- 7-12
- ◇ EXCEEDS ARARs

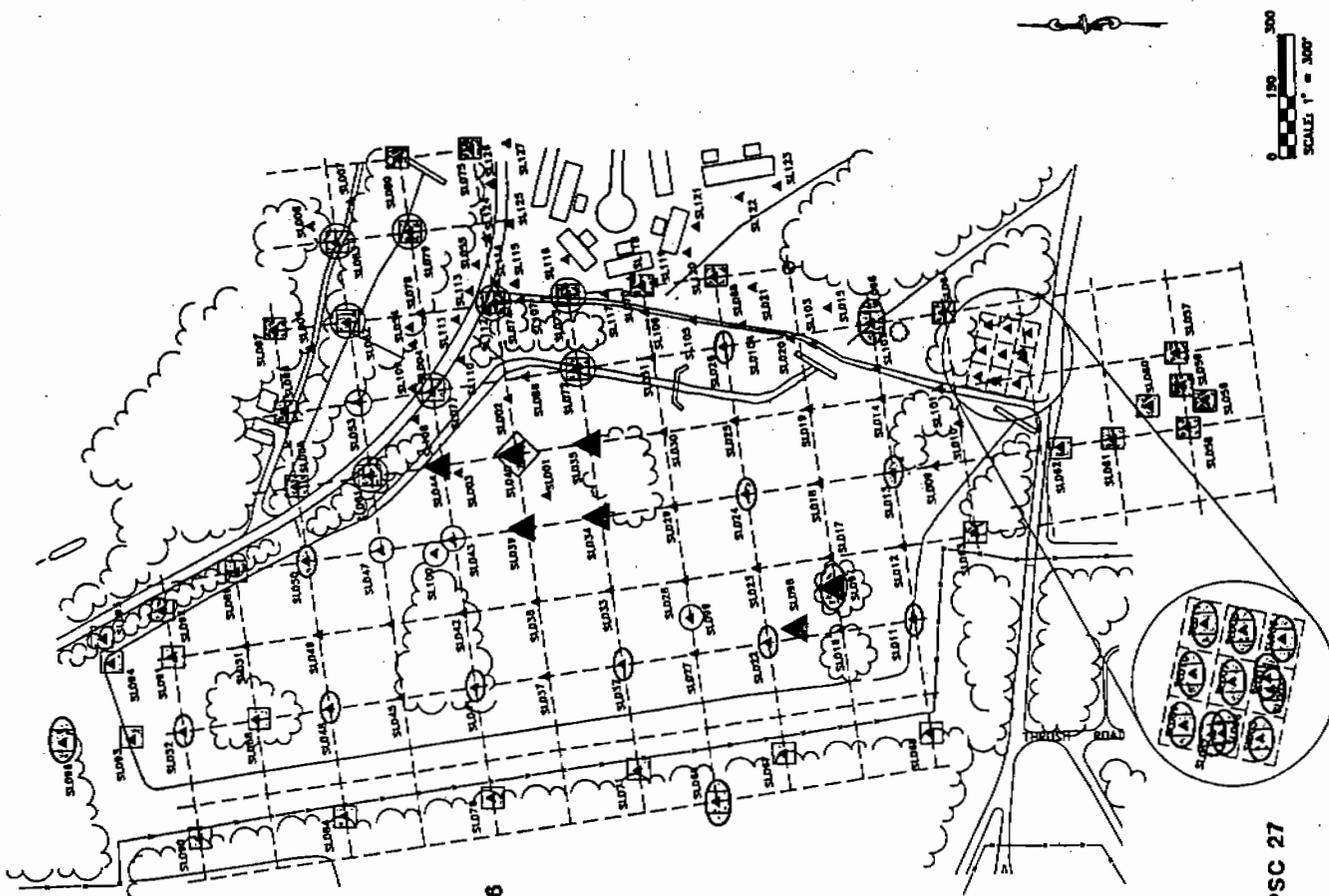


FIGURE P-5.41
ANTIMONY DETECTED
IN SOIL SAMPLES

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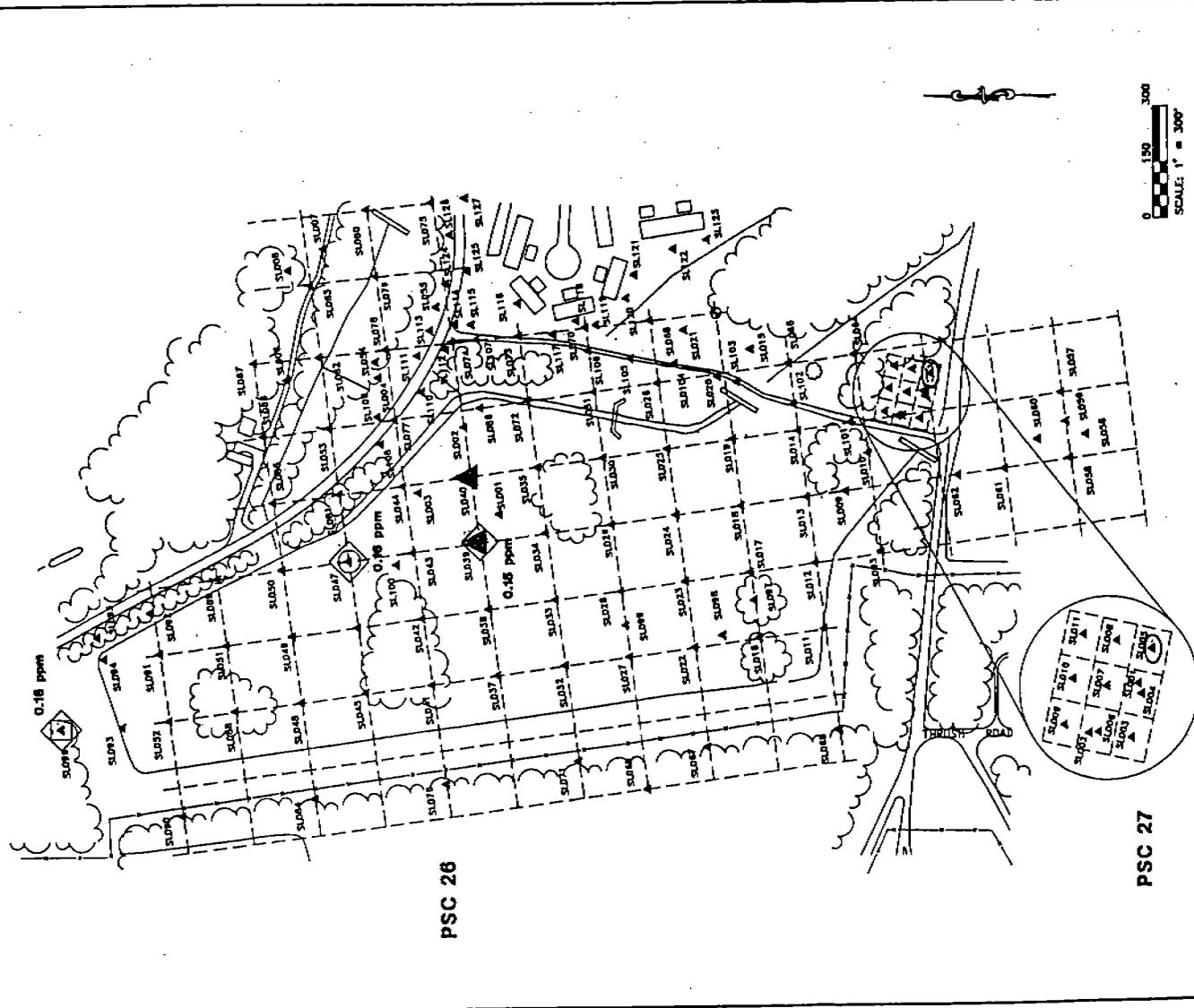
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0-3'
- 1'-4'
- 4'-7'
- 7'-12'
- ◇ EXCEEDS APARS

FIGURE P-5.42
BARIUM DETECTED
IN SOIL SAMPLES

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 FEASIBILITY STUDY FOR
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LEGEND

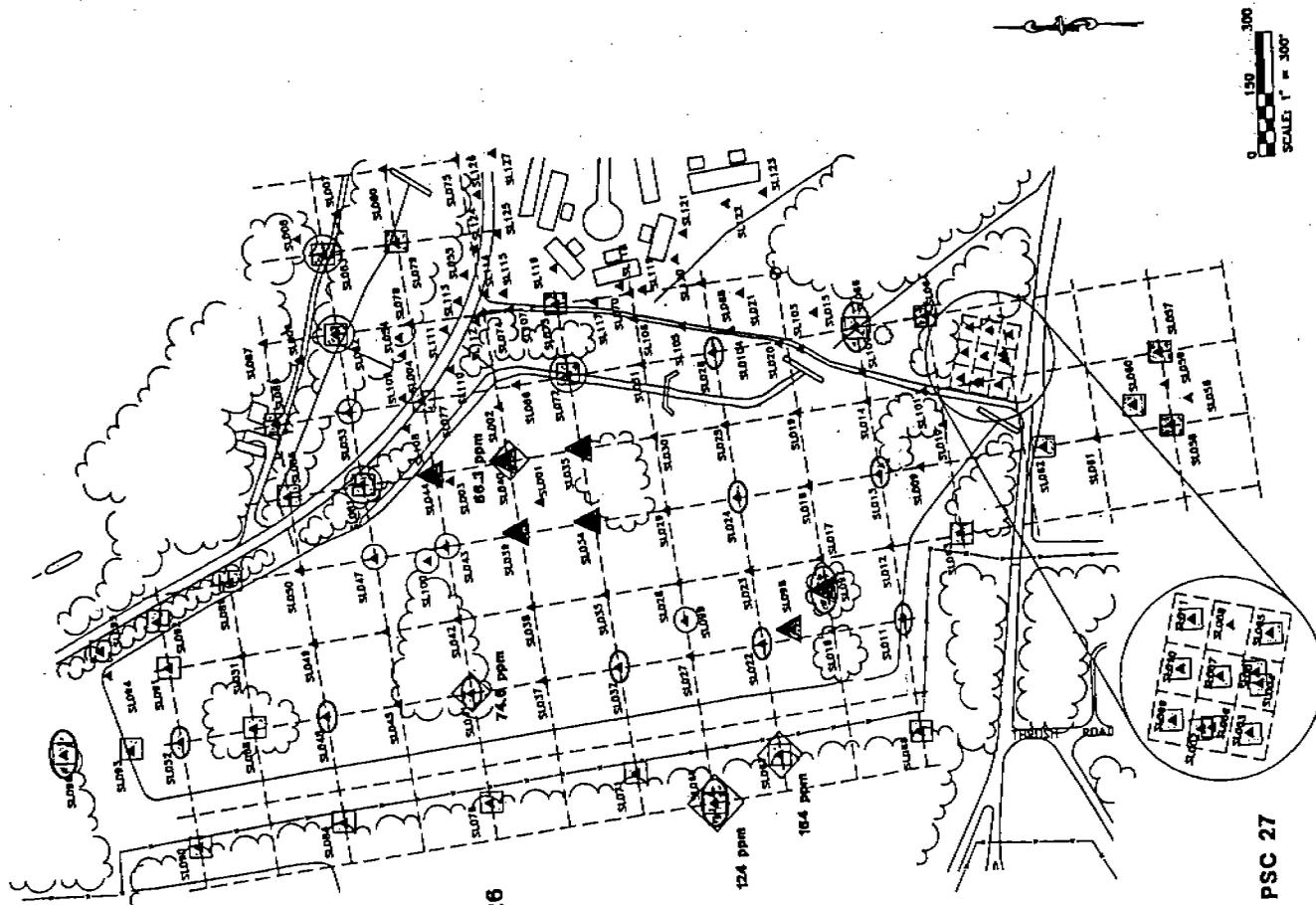
- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0-3'
- 1'-4'
- 4-7'
- 7'-12'
- EXCEEDS APARS

FIGURE P-5.43
BERYLLIUM DETECTED
IN SOIL SAMPLES

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 FEASIBILITY STUDY FOR
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LEGEND

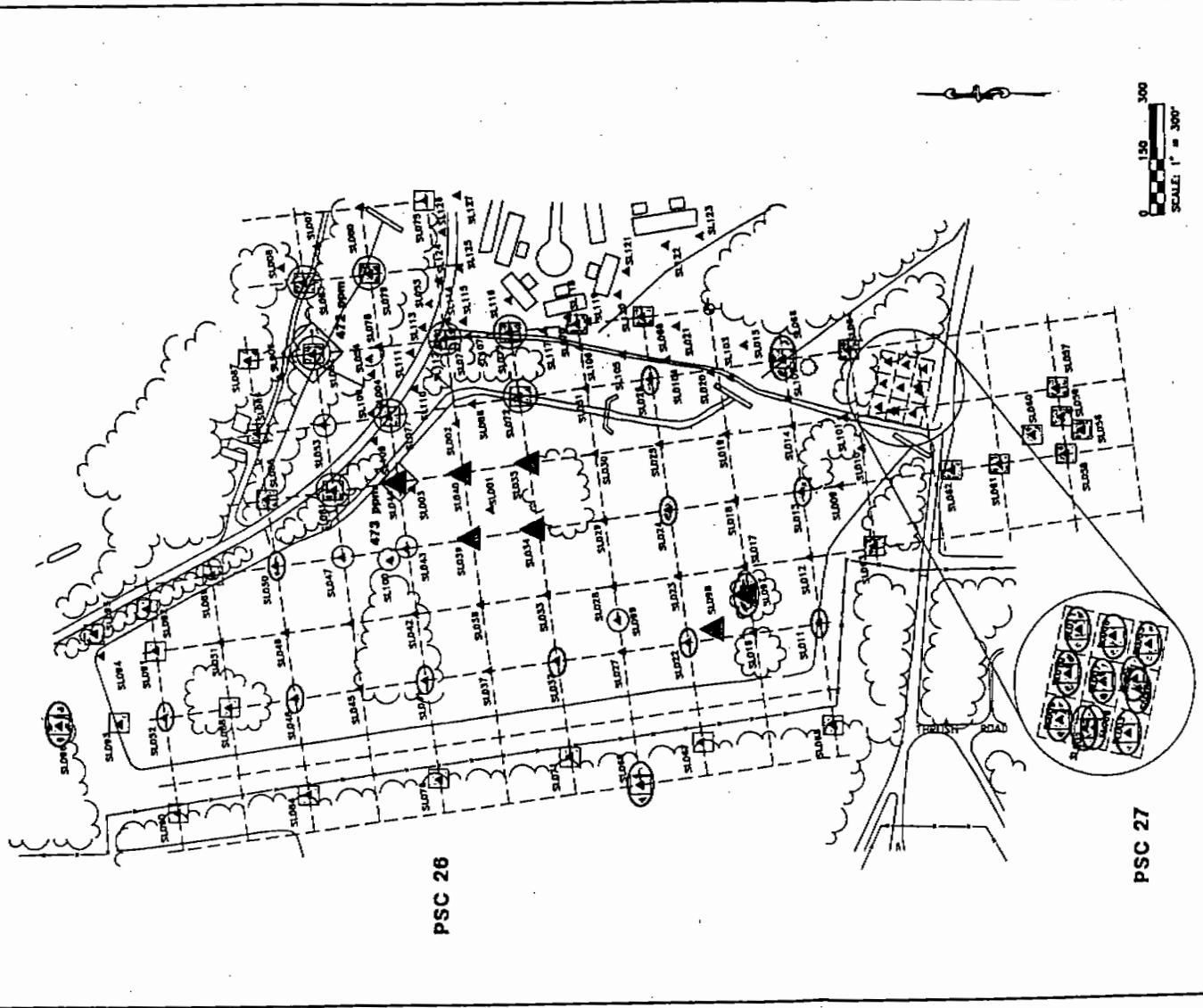
- — BENCHMARK
- ▲ — SOIL SAMPLE LOCATION
- — 0-3'
- — 1'-4'
- — 4'-7'
- — 7'-12'
- ◇ — EXCEEDS ARARS

FIGURE P-5.44
CADMIUM DETECTED
IN SOIL SAMPLES

**REMEDIAL INVESTIGATION/
 FEASIBILITY STUDY FOR
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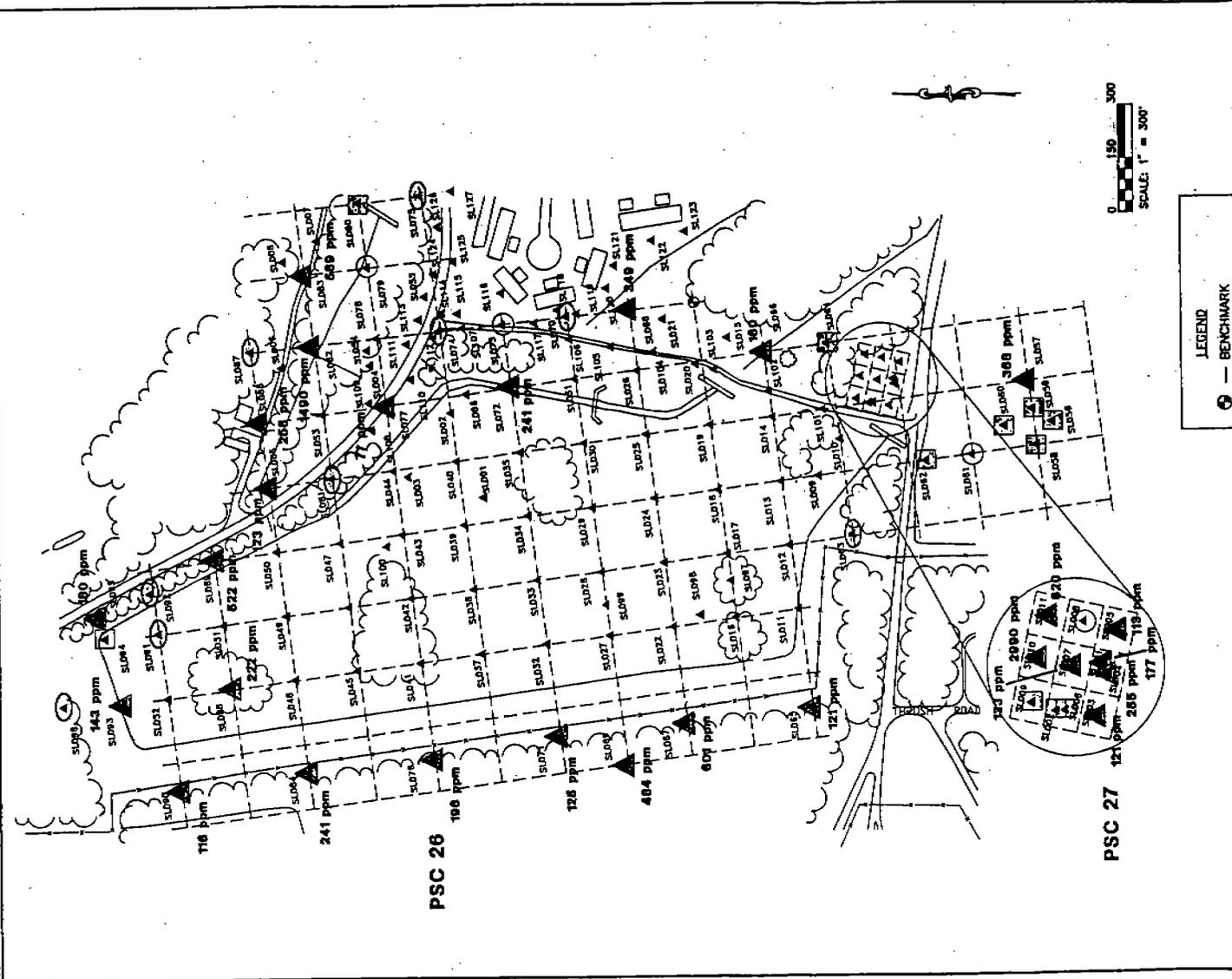
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- 0-3
- 1-4
- 4-7
- 7-12
- ◇ EXCEEDS ARARS

FIGURE P-6.45
CHROMIUM DETECTED
IN SOIL SAMPLES

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 FEASIBILITY STUDY FOR
 OPERABLE UNIT 1

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 JACKSONVILLE, FLORIDA



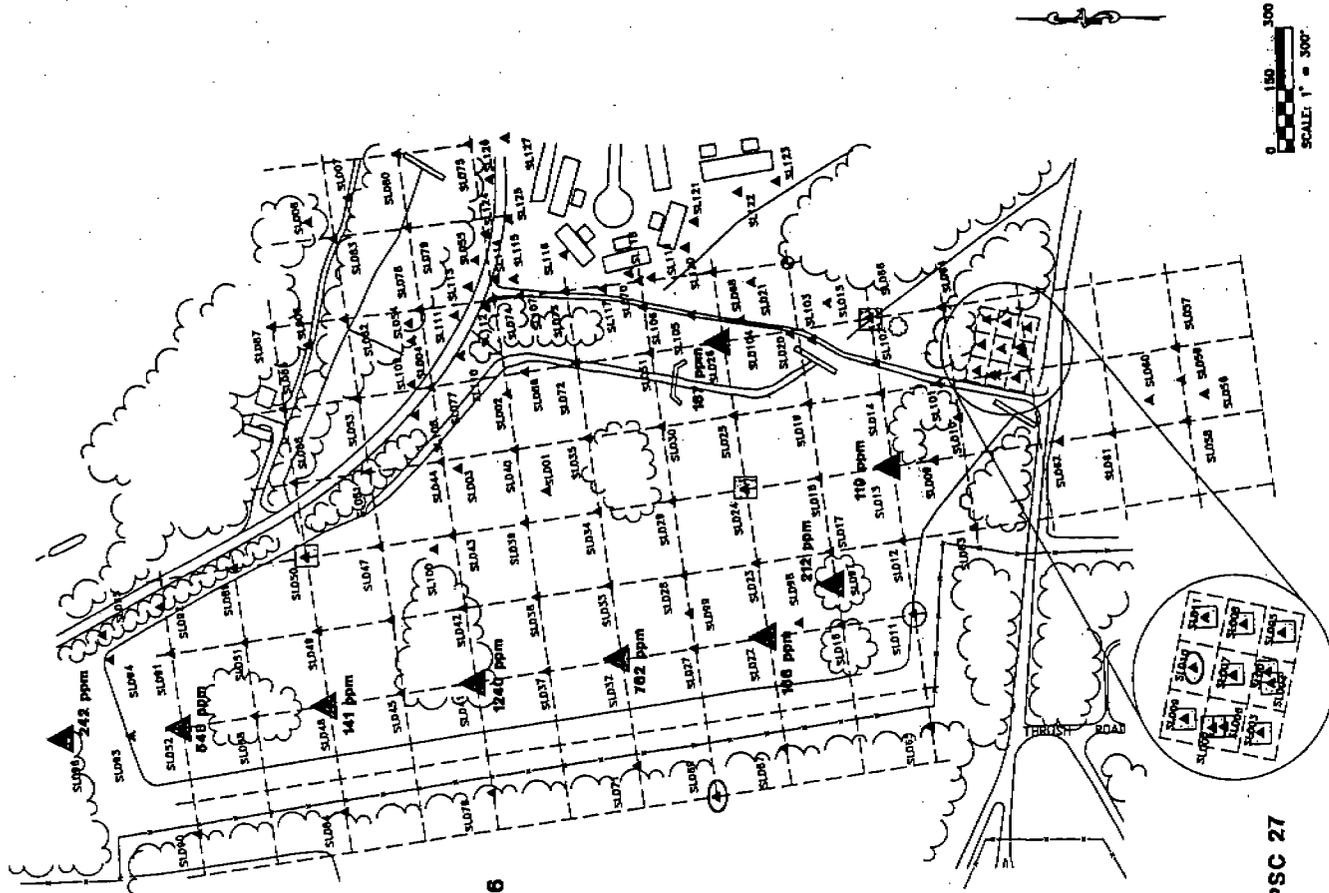
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- ▲ 1-25 ppm
- ▲ 25-50 ppm
- ▲ 50-75 ppm
- ▲ >75 ppm

FIGURE P-5.46
LEAD DETECTED IN SOIL
SAMPLES 0'-3'

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 FEASIBILITY STUDY FOR
 OPERABLE UNIT 1**

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PSC 27

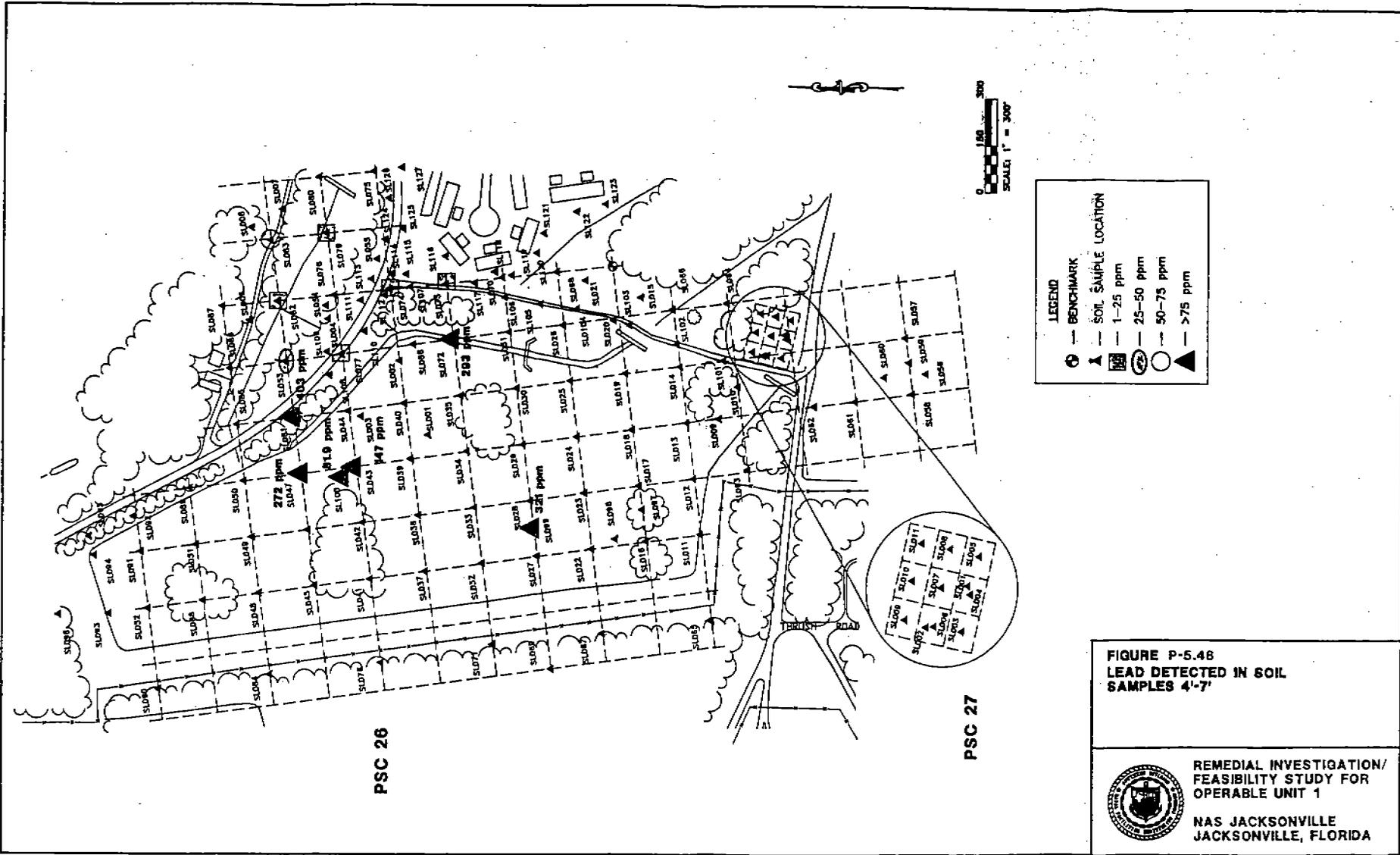
FIGURE P-5.47
LEAD DETECTED IN SOIL
SAMPLES 1'-4'



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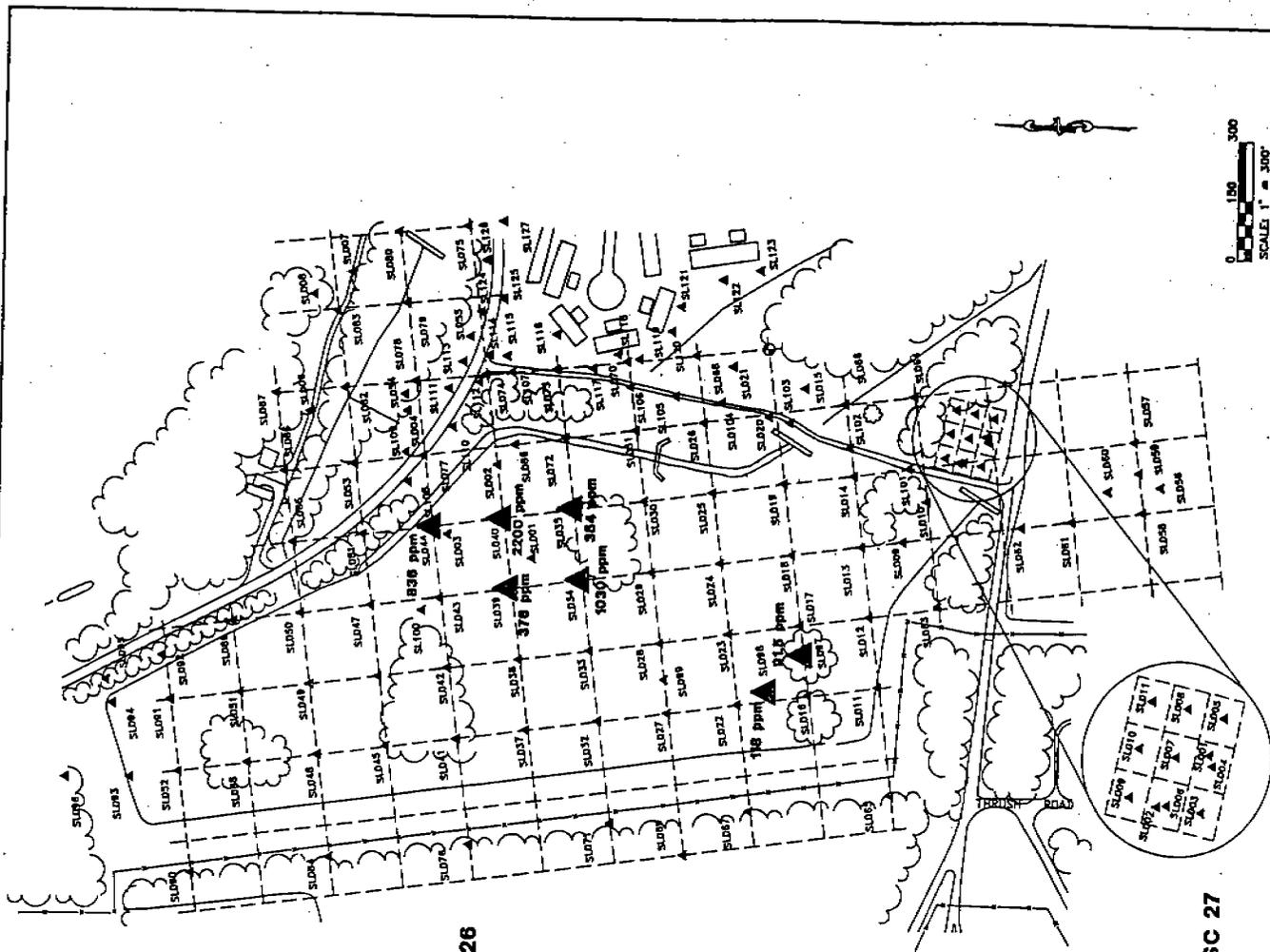
LEGEND

- BENCHMARK
- ▲ SOIL SAMPLE LOCATION
- ▲ 1-25 ppm
- 25-50 ppm
- ▲ 50-75 ppm
- ▲ >75 ppm

FIGURE P-5.46
LEAD DETECTED IN SOIL
SAMPLES 4'-7'

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 OPERABLE UNIT 1**

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 JACKSONVILLE, FLORIDA**



LEGEND

- — BENCHMARK
- ▲ — SOIL SAMPLE LOCATION
- — 1-25 ppm
- — 25-50 ppm
- — 50-75 ppm
- ▲ — >75 ppm

FIGURE P-5.49
LEAD DETECTED IN SOIL
SAMPLES 7'-12'

**REMEDIAL INVESTIGATION/
 FEASIBILITY STUDY FOR
 OPERABLE UNIT 1**

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APPENDIX Q
FATE AND TRANSPORT SECTION

GROUNDWATER FLOW AND CONTAMINANT TRANSPORT CALCULATIONS

1. The calculation of natural flushing of the contaminant plume has been done by using the analytical solution for two dimensional dispersion due to a slug input of contaminant mass into a uniform groundwater flow. The procedure is outlined below.
2. The analytical equation (see Hunt, B., MATHEMATICAL ANALYSIS OF GROUNDWATER RESOURCES, Butterworths, 1983, pp. 131-136) is given as follows:

$$c(x,y,t) = \frac{M}{4b\pi nt\sqrt{D_x D_y}} \exp\left[-\frac{(x-v_s t)^2}{4D_x t} - \frac{y^2}{4D_y t}\right]$$

where

M = mass of contaminant introduced
b = contaminated aquifer thickness
n = porosity
 D_x = longitudinal dispersion coefficient = $\alpha_x v_s$
 D_y = transverse dispersion coefficient = $\alpha_y v_s$
 α_x = longitudinal dispersivity
 α_y = transverse dispersivity
 v_s = seepage velocity
x = horizontal longitudinal direction
y = horizontal transverse direction
t = time

The mass, M, is determined by integrating the concentration of the plume contour map for total volatile organic compounds over the plume volume. The approximate total dissolved mass of VOCs has been determined to be 7.3 kg/meter of aquifer thickness for the Landfill Area plume and 8 kg/meter of aquifer thickness for the LNAPL Recovery Area plume, the porosity n is 0.25 as used by the USGS in their numerical model for OU1, the longitudinal and transverse dispersivities were chosen to be 3.8 m and 1 m respectively for the Landfill Area and 5 m and 1.3 m for the LNAPL Recovery Area (these values are typical for the scale of this problem and are consistent with published values - see Gelhar, L.W., STOCHASTIC SUBSURFACE HYDROLOGY, Prentice Hall, 1993), and the seepage velocity is 23.8 m/yr for the Landfill Area plume and 18.3 m/yr for the LNAPL Recovery Area plume.

3. By selecting the origin for the analytical solution at an appropriate distance,

and by choosing time by trial and error, a reasonable depiction of the 1994 plumes are obtained (see spreadsheet output).

4. Next, the plume is allowed to migrate as predicted by the analytical solution until the 5 ug/l (assumed cleanup target) contour has reached an x distance equivalent to the location of the unnamed creek. This then would be the time at which the VOC plume would be flushed naturally out of the aquifer.

MODELING RESIDUAL PLUME MIGRATION - LANDFILL

M =	initial mass	=	7.3 kg/m thick
n =	porosity	=	0.25
Dx =	longitudinal dispersion	=	0.25 m ² /day
Dy =	transverse dispersion	=	0.065 m ² /day
u =	pore velocity	=	0.0652 m/day

PLUME DISTRIBUTION, USING:

$$C(x',y',t') = (M/n)/(4*PI*(Dx*Dy)^{0.5*t'})*exp(-(((x-ut)^2/(4*Dx*t'))+(y^2/(4*Dy*t'))))$$

time = 9003 days

THIS TIME CORRESPONDS TO THE EXISTING PLUME, 1994

X; Y =	0	10	20	30	40	50	75	100
567	1.937	1.86	1.63	1.32	0.98	0.67	0.18	0.03
587	2.025	1.94	1.71	1.38	1.02	0.70	0.18	0.03
607	1.937	1.86	1.63	1.32	0.98	0.67	0.18	0.03
627	1.695	1.62	1.43	1.15	0.86	0.58	0.15	0.02
647	1.357	1.30	1.14	0.92	0.69	0.47	0.12	0.02
667	0.994	0.95	0.84	0.68	0.50	0.34	0.09	0.01
687	0.667	0.64	0.56	0.45	0.34	0.23	0.06	0.01
707	0.409	0.39	0.34	0.28	0.21	0.14	0.04	0.01
727	0.230	0.22	0.19	0.16	0.12	0.08	0.02	0.00
747	0.118	0.11	0.10	0.08	0.06	0.04	0.01	0.00
767	0.055	0.05	0.05	0.04	0.03	0.02	0.01	0.00
787	0.024	0.02	0.02	0.02	0.01	0.01	0.00	0.00
807	0.009	0.01	0.01	0.01	0.00	0.00	0.00	0.00
827	0.003	0.00	0.00	0.00	0.00	0.00	0.00	0.00
847	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00

X = 587 METERS CORRESPONDS TO THE LOCATION OF THE PEAK CONCENTRATION

X = 787 METERS CORRESPONDS TO THE LOCATION OF THE NO-NAME CREEK

MODELING RESIDUAL PLUME MIGRATION - LANDFILL

M =	initial mass	=	7.3 kg/m thick
n =	porosity	=	0.25
Dx =	longitudinal dispersion	=	0.25 m ² /day
Dy =	transverse dispersion	=	0.065 m ² /day
u =	pore velocity	=	0.0652 m/day

PLUME DISTRIBUTION, USING:

$$C(x',y',t) = (M/n)/(4*PI*(Dx*Dy)^{0.5*t}) * exp - (((x-ut)^2/(4*Dx*t)) + (y^2/(4*Dy*t)))$$

time = 12070 days THIS TIME IS 8.4 YEARS FROM 1994, OR 2002

X; Y =	0	10	20	30	40	50	75	100
567	0.027	0.03	0.02	0.02	0.02	0.01	0.00	0.00
587	0.055	0.05	0.05	0.04	0.03	0.02	0.01	0.00
607	0.103	0.10	0.09	0.08	0.06	0.05	0.02	0.00
627	0.181	0.18	0.16	0.14	0.11	0.08	0.03	0.01
647	0.298	0.29	0.26	0.22	0.18	0.13	0.05	0.01
667	0.458	0.44	0.40	0.34	0.28	0.21	0.08	0.02
687	0.660	0.64	0.58	0.50	0.40	0.30	0.11	0.03
707	0.889	0.86	0.78	0.67	0.53	0.40	0.15	0.04
727	1.121	1.09	0.99	0.84	0.67	0.51	0.19	0.05
747	1.323	1.28	1.16	0.99	0.79	0.60	0.22	0.05
767	1.461	1.42	1.29	1.10	0.88	0.66	0.24	0.06
787	1.510	1.46	1.33	1.13	0.91	0.68	0.25	0.06
807	1.461	1.41	1.29	1.10	0.88	0.66	0.24	0.06
827	1.322	1.28	1.16	0.99	0.79	0.60	0.22	0.05
847	1.120	1.09	0.99	0.84	0.67	0.51	0.19	0.05

X = 587 METERS CORRESPONDS TO THE LOCATION OF THE PEAK CONCENTRATION

X = 787 METERS CORRESPONDS TO THE LOCATION OF THE NO-NAME CREEK

MODELING RESIDUAL PLUME MIGRATION - LANDFILL

M = initial mass = 7.3 kg/m thick
 n = porosity = 0.25
 Dx = longitudinal dispersion = 0.25 m²/day
 Dy = transverse dispersion = 0.065 m²/day
 u = pore velocity = 0.0652 m/day

PLUME DISTRIBUTION, USING:

$$C(x,y,t) = \frac{M/n}{(4\pi D_x D_y t)^{0.5}} \exp\left(-\left(\frac{(x-ut)^2}{4D_x t} + \frac{y^2}{4D_y t}\right)\right)$$

time = 16668 days THIS TIME IS 21 YEARS FROM 1994, OR 2015

X; Y =	0	10	20	30	40	50	75	100
567	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
587	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
607	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
627	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
647	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
667	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
687	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
707	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
727	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
747	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00
767	0.002	0.00	0.00	0.00	0.00	0.00	0.00	0.00
787	0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00
807	0.010	0.01	0.01	0.01	0.01	0.01	0.00	0.00
827	0.019	0.02	0.02	0.02	0.01	0.01	0.01	0.00
847	0.035	0.03	0.03	0.03	0.02	0.02	0.01	0.00

X = 587 METERS CORRESPONDS TO THE LOCATION OF THE PEAK CONCENTRATION
 X = 787 METERS CORRESPONDS TO THE LOCATION OF THE NO-NAME CREEK

MODELING RESIDUAL PLUME MIGRATION - LNAPL AREA

M =	initial mass	=	8 kg/m thick
n =	porosity	=	0.25
Dx =	longitudinal dispersion	=	0.25 m ² /day
Dy =	transverse dispersion	=	0.065 m ² /day
u =	pore velocity	=	0.0501 m/day

PLUME DISTRIBUTION, USING:

$$C(x',y',t') = (M/n)/(4*PI*(Dx*Dy)^{0.5*t'})*exp(-(((x-ut)^2/(4*Dx*t'))+(y^2/(4*Dy*t'))))$$

time = 3193 days

THIS TIME CORRESPONDS TO EXISTING PLUME, OR 1994

X; Y =	0	10	20	30	40	50	75	100
140	5.522	4.90	3.41	1.87	0.80	0.27	0.01	0.00
160	6.256	5.55	3.86	2.12	0.91	0.31	0.01	0.00
180	5.517	4.89	3.41	1.87	0.80	0.27	0.01	0.00
200	3.788	3.36	2.34	1.28	0.55	0.19	0.00	0.00
220	2.024	1.79	1.25	0.68	0.29	0.10	0.00	0.00
240	0.842	0.75	0.52	0.28	0.12	0.04	0.00	0.00
260	0.272	0.24	0.17	0.09	0.04	0.01	0.00	0.00
280	0.069	0.06	0.04	0.02	0.01	0.00	0.00	0.00
300	0.013	0.01	0.01	0.00	0.00	0.00	0.00	0.00
320	0.002	0.00	0.00	0.00	0.00	0.00	0.00	0.00
340	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
380	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
420	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

X = 160 METERS CORRESPONDS TO THE LOCATION OF THE PEAK CONCENTRATION IN 1994

X = 340 METERS CORRESPONDS TO THE LOCATION OF THE NO-NAME CREEK

MODELING RESIDUAL PLUME MIGRATION - LNAPL AREA

M =	initial mass	=	8 kg/m thick
n =	porosity	=	0.25
Dx =	longitudinal dispersion	=	0.25 m ² /day
Dy =	transverse dispersion	=	0.065 m ² /day
u =	pore velocity	=	0.0501 m/day

PLUME DISTRIBUTION, USING:

$$C(x',y',t') = (M/n)/(4*PI*(Dx*Dy)^{0.5*t'})*exp(-(((x-ut)^2/(4*Dx*t'))+(y^2/(4*Dy*t'))))$$

time = 6790 days

THIS TIME IS 9.85 YEARS FROM 1994, OR 2004

X; Y =	0	10	20	30	40	50	75	100
140	0.008	0.01	0.01	0.00	0.00	0.00	0.00	0.00
160	0.025	0.02	0.02	0.01	0.01	0.01	0.00	0.00
180	0.067	0.06	0.05	0.04	0.03	0.02	0.00	0.00
200	0.163	0.15	0.13	0.10	0.07	0.04	0.01	0.00
220	0.351	0.33	0.28	0.21	0.14	0.09	0.01	0.00
240	0.671	0.63	0.53	0.40	0.27	0.16	0.03	0.00
260	1.141	1.08	0.91	0.69	0.46	0.28	0.05	0.00
280	1.726	1.63	1.38	1.04	0.70	0.42	0.07	0.01
300	2.319	2.19	1.85	1.39	0.94	0.56	0.10	0.01
320	2.771	2.62	2.21	1.66	1.12	0.67	0.11	0.01
340	2.942	2.78	2.35	1.77	1.19	0.71	0.12	0.01
360	2.777	2.62	2.21	1.67	1.12	0.67	0.11	0.01
380	2.329	2.20	1.86	1.40	0.94	0.57	0.10	0.01
400	1.737	1.64	1.38	1.04	0.70	0.42	0.07	0.01
420	1.151	1.09	0.92	0.69	0.47	0.28	0.05	0.00

X = 160 METERS CORRESPONDS TO THE LOCATION OF THE PEAK CONCENTRATION IN 1994
 X = 340 METERS CORRESPONDS TO THE LOCATION OF THE NO-NAME CREEK

MODELING RESIDUAL PLUME MIGRATION - LNAPL AREA

M =	initial mass	=	8 kg/m thick
n =	porosity	=	0.25
Dx =	longitudinal dispersion	=	0.25 m ² /day
Dy =	transverse dispersion	=	0.065 m ² /day
u =	pore velocity	=	0.0501 m/day

PLUME DISTRIBUTION, USING:

$$C(x',y',t') = (M/n)/(4*PI*(Dx*Dy)^{0.5*t'}) * \exp - (((x-ut)^2/(4*Dx*t')) + (y^2/(4*Dy*t')))$$

time = 12050 days THIS TIME IS 24.3 YEARS FROM 1994, OR 2018

X; Y =	0	10	20	30	40	50	75	100
140	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
240	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
260	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
280	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320	0.002	0.00	0.00	0.00	0.00	0.00	0.00	0.00
340	0.005	0.01	0.00	0.00	0.00	0.00	0.00	0.00
360	0.012	0.01	0.01	0.01	0.01	0.01	0.00	0.00
380	0.026	0.03	0.02	0.02	0.02	0.01	0.00	0.00
400	0.053	0.05	0.05	0.04	0.03	0.02	0.01	0.00
420	0.101	0.10	0.09	0.08	0.06	0.05	0.02	0.00

X = 160 METERS CORRESPONDS TO THE LOCATION OF THE PEAK CONCENTRATION IN 1994

X = 340 METERS CORRESPONDS TO THE LOCATION OF THE NO-NAME CREEK