APPENDIX D

DATA QUALITY ASSESSMENT SUMMARY

APPENDIX D
DATA QUALITY ASSESSMENT
Field Site Investigation for Area I Fuel Only Facilities

(Area I Fuel Storage Facilities at Buildings 15, 25, 26, 27, 28, 45, 46(B), 54, 118(A), 152 and 178)

FORWARD

This Data Quality Summary Appendix is an excerpt form another quality control document. Some sections of that document are repetitive with information presented in the text of the Technical Memorandum or are not applicable to the scope of this appendix. These sections have been removed to reduce redundancy and presentation of non-applicable information. The section, table, and figure numbering in this appendix are the same as appear in the original document.

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LIST OF ACRONYMS

1,2-DCA	1,2-dichloroethane
AST	aboveground storage tank
BBZ	bromobenzene
BC	Brown and Caldwell
Be	beryllium
BFB	1-bromo-4-fluorobenzene
bgs	below ground surface
BZME	toluene
C-10	decane
C-20	eicosane
C-24	tetracosane
C-26	n-hexacosane
C-34	tetratriacontane
CAR	corrective action request
CCV	continuing calibration verification
Cd	cadmium
COC	chain-of-custody
COPC	chemicals of potential concern
Cr	chromium
Cu	copper
DCBP	decachlorobiphenyl
DoD	Department of Defense
DQCR	data quality control report
DQO	data quality objective
DROs	diesel-range organics
EDD	electronic data deliverable
EPA	Environmental Protection Agency
FA/BC	Forsgren Associates/Brown and Caldwell
FD	field duplicate
FL	fluorescence
FSIP	field site investigation plan
FUDS	Formerly Used Defense Site
GC	gas chromatography
GFAA	graphite furnace atomic absorption
GROs	gasoline-range organics
Hg	mercury
HPLC	high performance liquid chromatography
ICB	initial calibration blank
ICP	inductively coupled plasma
ICV	Initial calibration verification
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LR	laboratory replicate
MDL	method detection limit
mg/kg	milligrams per kilogram
mL	milliliter
MS	matrix spike
MSD	matrix spike duplicate
ND	not detected

LIST OF ACRONYMS (continued)

Ni	nickel
PAHs	polycyclic aromatic hydrocarbons
Pb	lead
%D	percent difference
PQL	practical quantitation limit (a.k.a. reporting limit)
PRG	preliminary remedial goal
QAPP	Quality Assurance Project Plan
QC	quality control
QCSR	Quality Control Summary Report
RPD	relative percent difference
RRF	relative response factor
RROs	residual-range organics
RRT	relative retention time
RSD	relative standard deviation
SDG	sample delivery group
Sn	tin
SOP	standard operating procedure
TDS	total dissolved solids
TFT	1,1,1-trifluorotoluene
TIC	tentatively identified compound
TPH	total petroleum hydrocarbons
µg/L	micrograms per liter
USACE	United States Army Corps of Engineers
UST	underground storage tank
UV	ultraviolet
VOA	volatile organics analysis
VOCs	volatile organic compounds
Zn	zinc

2.0 SAMPLING PROCEDURES

During the investigation at the Area I Fuel Only Facilities, FA/BC collected soil and groundwater samples according to procedures outlined in the appropriate FSIPs (Area I Fuel Only Facilities [February 2000] and Letter Addendum [September 2000]) and in Standard Operating Procedures (SOPs) included in the Arsenal-Wide Quality Assurance Project Plan (QAPP) (Brown and Caldwell [BC], 1999). Prior to invasive activities, work areas were cleared for subsurface utilities and possible obstructions by geophysical survey and contacting local utility providers. Utility clearance procedures are described in SOP 6.0 of the QAPP.

2.1 Sample Collection

In general, soil samples were collected using a hand drive sampler or power driven sampler (i.e., Geoprobe® or split spoon) into stainless steel sleeves. Soil samples for analysis of volatile organic compounds (VOCs) and volatile total petroleum hydrocarbons (TPH) were collected directly from the soil with the Encore® sampler at depths less than 3 inches. At depths greater than 3 inches, a hand drive sampler or power driven sampler was driven with stainless steel sleeves and the Encore® samplers were taken from the sleeve. Soil sampling procedures are described in SOPs 7.0 and 32.0 of the QAPP. Water samples were collected as in-situ water and grab samples using a peristaltic pump or disposable bailer. Water sampling procedures are described in SOPs 13.0 and 17.0 of the QAPP.

2.2 Sample Handling

FA/BC designated samples with a five component sample identification (ID) code. The code's five components identified the building, sampling locale (trench or boring number), sample type (A for normal, B for field duplicate, C for quality assurance/quality control (QA/QC) splits [none collected for this field effort], and D for field QC samples), matrix type, sample number, and analysis grouping. This code is shown below with individual components identified.

(**building number**-*boring or trench number*-**sample type**-sample matrix-***soil sample number***)

Example – **B054***HA001*-**A**-S***02***

For field duplicates, the two sleeves used for the pairing were always from immediately adjacent depths. This was identified as a deviation from QAPP requirements during the writing of the QCSR for the 50 Series Complex in Area I. An SOP was written for homogenizing field duplicates for non-volatile analytes and included as an appendix to that document (FA/BC, 2000). However, this field effort was conducted prior to implementing homogenization procedures.

Samples were collected in pre-cleaned sleeves, glass jars, or Encore® samplers and shipped to the laboratory in a cooler with ice. Packaging and shipping procedures are described in SOP 9.0 (BC, 1999). Containers, preservatives and holding times are listed in Table 2-1. Each sample was labeled at the time it was collected in accordance with the QAPP. The labels were written in waterproof ink and included the following information:

Table 2-1

Sample Containers, Preservation Methods and Analytical Holding Times

Parameter	Matrix	Container	Lid	Preservation	Maximum Holding Times	
					Extraction[a]	Analysis[b]
Metals	Water	500 mL polyethylene	Cap with Teflon® seal	HNO_3 to pH<2; Ice to 4°C	-	6 months (Hg: 28 days)
	Soil	Stainless steel sleeve	Teflon®-lined plastic end-caps	Ice to 4°C	-	6 months (Hg: 28 days)
Volatiles	Water	40 mL glass vials X 3	Cap with Teflon® septum	HCl to pH<2; Ice to 4°C	-	14 days
	Soil	EnCore sampler X 3	o-ring cap	Ice to 4°C; 48 hours to preserve with methanol or sodium bisulfate[c]	-	14 days
Purgeable Hydrocarbons	Water	40 mL glass vials X 3	Cap with Teflon® septum	HCl to pH<2; Ice to 4°C	-	14 days
	Soil	EnCore sampler X 2	o-ring cap	Ice to 4°C	-	14 days
Extractable Hydrocarbons	Water	1 liter glass amber jar X 2	Teflon®-lined caps	Ice to 4°C	7 days	40 days
	Soil	Stainless steel sleeve	Teflon®-lined plastic end-caps	Ice to 4°C	14 days	40 days
Polynuclear Aromatic Hydrocarbons	Water	1 liter glass amber jar X2	Teflon®-lined caps	Ice to 4°C	7 days	40 days
	Soil	Stainless steel sleeve	Teflon®-lined plastic end-caps	Ice to 4°C	14 days	40 days
Total Dissolved Solids	Water	250 mL polyethylene	Teflon®-lined caps	None	None	7 days

Abbreviations:
ml = milliliter
oz = ounce

a = Starting from the date of collection
b = Starting from the date of extraction; if no extraction is involved, starting from the date of collection
c = Backup samples may be frozen within 48 hours of collection. The hours from collection to freezing must be documented. When removed from the freezer, the sample must be preserved or analyzed within 48 hours minus the time from sampling to freezing.

- sample identification number
- sample location
- date and time of collection
- analyses required
- preservative used (if applicable)
- signature of the sampler.

A chain-of-custody (COC) form was used to document sample possession from the time of collection to the time of receipt by the laboratory. Information contained on the COC forms included:

- sample ID number
- date and time of sampling
- analyses required
- name of sampler and appropriate signatures
- shipping time and date.

A COC record accompanied each sample shipment. There were twelve COC records used during the Area I Fuel Only Facilities investigation (COCs #0075 through #0086). The sampling team maintained sample custody until shipment. At the time the samples were transferred, the individuals relinquishing and receiving the samples signed and dated the COC record.

Two custody seals were completed and attached to each shipping container to detect tampering with samples that may have occurred. There were no instances in which samples were delivered to the laboratory without the custody seals being intact.

3.0 SUMMARY OF QUALITY CONTROL ACTIVITIES

FA/BC implemented the three-phase QC process prior to and during the investigation. The three-phase QC process consisted of preparatory phase meetings, initial phase inspections, and follow-up phase inspections. The various activities associated with this process are discussed below.

3.1 Laboratory Kick-off Meeting

FA/BC conducted a laboratory kick-off meeting on 14 September 2000 that was attended via teleconference by FA/BC, Jacobs and EMAX. Subjects discussed in the kick-off meeting included the following items:

General scope of work and schedule of field sampling

Key personnel and phone numbers

Review modifications to QAPP items (i.e., relaxed minimum relative response factor [RRF] for ketones by SW8260B from 0.05 to 0.01; removal of acrolein and acrylonitrile from SW8260 target list; and matrix spike/matrix spike duplicate [MS/MSD] frequency for low-level encores was reduced from 1 per batch to 1 per 20).

Analytical methods and preparation methods to be used, past performance issues, and revisions proposed for this sampling effort.

Analytical methods and preparation methods revisions (i.e., all soil samples for metals analysis will be prepared by a modified SW3050B procedure [see Section 4.1] and soil samples for antimony analysis will now be analyzed by SW6010B rather than graphite furnace analysis).

Soil type (clay or sand) should be put on COCs to help lab in properly batching extractable soils.

Duplicate packages and electronic data deliverables (EDDs) should be prepared for all sample delivery groups (SDGs). For the EDDs and Level III data packages, one should go to Jacobs and one to FA/BC. For Level IV data packages, one should go to DataVal, Inc. and one should go to FA/BC.

Results of project compliance audit performed on 10 June 1999.

3.2 Daily Quality Control Reports

Daily quality control reports (DQCRs) were completed during field activities to document field activities and variances from the Workplan. Deviations from the FSIP are discussed in Section 2.3 of this QCSR. Copies are included with this QCSR as Appendix A.

3.3 Readiness Review

FA/BC conducted two readiness review meetings on 23 June 2000 for the geophysical investigation and 8 September 2000 for the site investigation. The purpose of these meetings was to review logistical items with the FA/BC and USACE technical team, and identify

outstanding issues prior to mobilizing for the field. The readiness review checklists for these meetings are attached to this QCSR as Appendix B.

3.4 Laboratory Audit

As a part of the previous field activities, a laboratory audit was conducted by USACE at EMAX in May 1999 under the direction of the Project Chemist and again by the FA/BC project team on 10 June 1999. The audit results and laboratory responses to the audit findings are maintained in the project files. Outstanding issues from this audit were resolved to the satisfaction of the USACE and Project Chemist prior to beginning fieldwork. Because analyses planned for analysis by EMAX for this field effort were covered in the two previous audits, no audits were proposed for this phase of work. EMAX is audited/certified by the State of California and audited/validated by the USACE for the required analyses.

3.5 Field Audit(s)

A field audit was performed by Bradley A. Call, P.E. of the USACE on 21 September 2000. A copy of the audit report is included in Appendix C.

3.6 Quality Control Samples

Field QC samples collected during the Area I Fuel Only Facilities field investigation are summarized in Table 3-1. Laboratory batch QC sample correlation tables are presented in Appendix D. A legend for analytical result tables is presented in Appendix E. Results for field duplicate results are presented in Appendix F. Results for laboratory replicate results are presented in Appendix G. The majority of trip blank and equipment blank results were non-detect. When analytes were detected in blanks, the specific compounds detected and the related sample data are discussed in Section 5.0.

The planned frequency for QC samples were:

- Trip blanks: one per shipment for volatile analyses
- Equipment blanks: one per day for waters not collected with disposable equipment
- Method blanks: one per batch
- Laboratory Control Sample (LCS): one per batch
- MS: one per batch (one per 20 for low-level SW8260)
- MSD: one per batch for organic methods (one per 20 for SW8260)
- Laboratory Replicate (LR): one per batch for inorganic methods
- Field Duplicate (FD): one per ten samples collected

Compliance with these planned frequencies is discussed on a method and matrix-specific basis in Section 5.0 of this QCSR.

3.7 Laboratory Quality Control

Laboratory QC was conducted according to the QAPP (BC, 1999) and amendments to the QAPP summarized in a September 1999 amendment to the QAPP. An assessment of laboratory data quality against criteria established in the QAPP is presented in detail in Section 5.0 of this QCSR. Significant problems with reporting, in either hard copy or EDD formats, as well as notable QC deficiencies on the part of the laboratory were addressed in the Corrective Action Requests (CARs). Copies of CARs related to the Area I Fuel Only Facilities are presented in Appendix J. CARs were consecutively numbered across several projects,

therefore, non-sequential CAR numbering does not indicate missing information related to this project.

Table 3-1

Summary of Quality Control Samples

Sample ID	Matrix	Sample type	Metals	TPH-GRO	TPH-DRO/RRO	VOCs	PAHs	TDS
B028TR001-D-W01	W	Trip Blank				X		
B054HA001-B-S01	S	Field Duplicate		X		X		
B054HA001-B-S02	S	Field Duplicate	X		X		X	
B054HA002-A-S01	S	MS/MSD		X				
B054HA002-A-S02	S	MS/LR	X					
B118ATR001-D-W02	W	Trip Blank				X		
B118ATR002-A-W01	W	MS/MSD				X		
B118ATR002-D-W02	W	Trip Blank				X		
B118ATR004-A-W01	W	Laboratory Replicate						X
B118ATR005-A-S01	S	Field Duplicate				X		
B118ATR005-A-S02	S	Field Duplicate			X		X	
B118ATR005-A-S03	S	MS/MSD				X		
B118ATR005-A-S04	S	MS/MSD			X		X	
B152HA001-B-S01	S	Field Duplicate				X		
B152HA001-B-S02	S	Field Duplicate	X		X		X	
B178HA001-A-S02	S	MS/MSD				X		
B178HA003-D-W01	W	Trip Blank				X		

S = soil; GW = groundwater
LR = laboratory replicate
MS/MSD = matrix spike/matrix spike duplicate
PAHs = polynuclear aromatic hydrocarbons by 3540C or 3550B(soil)/3520C(water)/3630C/8310
TDS = total dissolved solids by 160.1
TPH-DRO/RRO = total petroleum hydrocarbons diesel range organics/residual range organics by 3545 or 3550B(soil)/3520C(water)/3630C/8015B
TPH-GRO = total petroleum hydrocarbons – gasoline range organics by 5035/8015B
VOCs = volatile organic compounds by 5035(soil)/5030B(water)/8260B

* Metals = aluminum, antimony, barium, beryllium, cadmium (trace ICP), chromium, cobalt, copper, iron, lead (trace ICP), magnesium, manganese, molybdenum, nickel, silver, tin, vanadium, and zinc by 3050B/6010B; arsenic by 3050B/7060A; selenium by 3050B/7740; thallium by 3050B/7841; and mercury by7471A(soil)

4.0 ANALYTICAL PROCEDURES

Table 4-1 summarizes the analytical and preparation procedures used for samples collected during this investigation.

4.1 SW6010B – Modification to Soil Preparation Procedure

All soil samples for SW6010 analysis were digested by a modification of Environmental Protection Agency (EPA) SW-846 Method 3050B.

The modification consisted of:

At step 7.2 of EPA SW-846 Method 3050B, a 5 milliliter (mL) addition of concentrated HCl is made which is not called for. At step 7.3, an additional 5 mL addition is made when a 10 mL addition is called for. The total amount added is unchanged.

This change is designed to keep antimony in solution and prevent the loss of antimony during filtration steps. The revised digestion was evaluated during the analysis of samples from the 50 Series Complex investigation at Benicia. The revised digestion improved the average recovery for antimony from approximately 15 percent to approximately 79 percent, without adversely affecting the recovery of other target analytes.

Table 4-1
Analytical Methods

Parameter	Matrix	Analytical Method	Analytical Procedure	Extraction/Preparation Method	Extraction/Preparation Procedure
Metals[a]	Soil	SW6010B	Inductively Coupled Plasma	SW3050Bmod	Acid Digestion
Arsenic	Soil	SW7060A	Graphite Furnace Atomic Absorption	SW3050B	Acid Digestion
Mercury	Soil	SW7471A	Cold Vapor Atomic Absorption	---	---
Selenium	Soil	SW7740	Graphite Furnace Atomic Absorption	SW3050B	Acid Digestion
Thallium	Soil	SW7841	Graphite Furnace Atomic Absorption	SW3050B	Acid Digestion
Purgeable hydrocarbons (gasoline)	Soil	SW8015B	Gas Chromatography/Flame Ionization Detector	SW5030B	Purge and Trap (soils collected in Encore samplers followed by methanol extraction)
Extractable hydrocarbons (diesel)	Water	SW8015B	Gas Chromatography/Flame Ionization Detector	SW3520C [b]	Continuous Liquid/Liquid
	Soil	SW8015B	Gas Chromatography/Flame Ionization Detector	SW3545 [b]	Pressurized Fluid Extraction
	Soil	SW8015B	Gas Chromatography/Flame Ionization Detector	SW3550B [b]	Ultrasonic
Volatile organic compounds	Water, Soil	SW8260B	Gas Chromatography/Mass Spectrometry	SW5030B	Purge and Trap (soils collected in Encore samplers followed by methanol extraction)
	Soil	SW8260B	Gas Chromatography/Mass Spectrometry	SW5035	Closed System Purge and Trap
Polynuclear aromatic hydrocarbons	Water	SW8310	Liquid Chromatography/Ultraviolet and Fluorescence Detection	SW3520C [b]	Continuous Liquid/Liquid
	Soil	SW8310	Liquid Chromatography/Ultraviolet and Fluorescence Detection	SW3550B [b]	Ultrasonic
Total dissolved solids	Water	160.1	Gravimetric	---	---

(a) Al, Sb, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Mo, Ni, K, Ag, Na, Sn, V, Zn
(b) Extracts were pre-cleaned with silica gel by SW3630C prior to analysis.

5.0 CHEMICAL DATA QUALITY ASSESSMENT

Soil and water samples associated with the investigation of the Area I Fuel Storage Facilities at the Arsenal were sent to EMAX Laboratories in Torrance, California in 4 SDGs: 00I105, 00I123, 00I133, and 00I170.

Selected laboratory batches, accounting for approximately 10 percent of the samples from each analytical method, received full Level IV validation. All elements identified in the column of Table 4-1 of the QAPP (BC, 1999) titled 'Performed for Data Validation" were compared to the requirements of that QAPP and the proposed updates from May to September 1999. The Level IV validation was performed by DataVal, Inc. of San Rafael, California. The complete validation report is included as Appendix H to this report.

The remaining samples received Level III verification for the subset of elements identified in the column titled "Performed for Data Verification" of the same table with the addition of initial and continuing calibration review. Level III verification was performed by Jacobs Engineering of Sacramento, California. This data quality assessment summarizes the findings from all verification and validation activities. A summary of data qualified as a result of this assessment is presented in Appendix I.

The assessment is organized by method and matrix. At the end of each section, there is a table that summarizes completeness with respect to several different criteria. The calculations used for each type of completeness are listed below.

$$\text{Contract Completeness} = \frac{\text{\# results not associated with QAPP compliance failure}}{\text{\# results reported}} \times 100$$

$$\text{Analytical Completeness} = \frac{\text{\# unqualified results}^{\dagger}}{\text{\# results reported}} \times 100$$

$$\text{Technical Completeness} = \frac{\text{\# usable results}^{\dagger\dagger}}{\text{\# results reported}} \times 100$$

$$\text{Field Sampling Completeness} = \frac{\text{\# samples collected}}{\text{\# samples planned}} \times 100$$

[†]Results estimated solely because the concentration is below the PQL do not count against completeness.

[††] Estimated results considered as usable for project decision-making

The goals for completeness are as follows: contract (100%), analytical (90%), technical (95%), and field completeness (100%).

For inorganic and metals analyses, each analyte has been evaluated individually for completeness. For multi-analyte organic methods, completeness has been calculated for each sample using the aggregate results for all analytes. All completeness evaluations are made in accordance with guidance given in the QAPP.

5.1 Volatile Organics and Oxygenates by Method SW8260B

5.1.1 Volatile Organics and Oxygenates in Soil Samples. A total of 13 environmental soil samples and 3 field duplicates were collected for VOCs and oxygenates analysis by Method

SW8260B. Three additional samples were collected for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX) only. The samples were collected in Encore® samplers and transported cold to EMAX where they were preserved with sodium bisulfate for low level analysis. Backup Encore® samplers were frozen upon receipt in case mid-level analysis was required for any samples. The extraction/preservation procedures followed the guidelines for extraction of volatile organics in soil for a closed-system purge-and-trap found in Method SW5035.

The soil samples were analyzed in five laboratory batches. All five of the batches used the preserved low-level samples. No mid-level analyses were required. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. Samples were collected in the proper Encore® containers and stored correctly by being maintained at a temperature of <6°C. All samples were preserved with sodium bisulfate within 48 hours of collection. Each sample was preserved immediately upon receipt in duplicate preservation batches, each of which included a preservation blank. The time of preservation of each sample in each batch was documented on a preservation log which was included in each data package. No samples were required to be analyzed from frozen backup Encore® containers. All soil samples were analyzed within the prescribed holding time of 14 days from the date of collection.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of one method blank per laboratory batch. In addition, the laboratory analyzed preservation blanks associated with each preservation batch. A total of four trip blanks (one BTEX only), one per cooler shipped, were associated with the samples analyzed for VOCs by Method SW8260B.

Toluene was detected above the method detection limit (MDL) but below one-half the practical quantitation limit (PQL) in 3 of 8 method or preservation blanks. Toluene was not detected in the associated samples and qualification was not required. Since detected levels did not exceed ½ the PQL, no corrective action was required by the laboratory. Methylene chloride was detected above the MDL but below one-half the PQL in 4 of 6 method or preservation blanks. All six detected results in the associated samples were qualified as non-detect with an estimated detection limit due to method blank contamination. Since detected levels did not exceed ½ the PQL, no corrective action was required by the laboratory. All three full-analyte list trip blanks had methylene chloride detected above the MDL. Since methylene chloride was found in the associated method blanks, the contamination most likely occurred in the laboratory rather than in the field. All six detected results for methylene chloride in the associated samples, previously qualified as non-detect with an estimated detection limit due to method blank contamination, were also flagged as being associated with trip blank contamination.

The method blank contamination had no significant affect in reaching DQOs for the project. Methylene chloride is not a contaminant of concern for this fuels investigation. In addition, the worst case of contamination raised the effective detection limit to 0.0022 milligrams per kilogram (mg/kg) for methylene chloride while the residential preliminary remedial goal (PRG) is orders of magnitude higher at 8.9 mg/kg. No other analytes were detected above the MDL in the trip blanks. Equipment blanks are not required for soil samples and were not collected. Results qualified due to blank contamination are presented in Table 5.1.1-1.

Table 5.1.1-1

SW8260B Qualified Soil Results due to Blank Contamination

Location ID	Flag	Estimated DL (mg/kg)	Associated PQL (mg/kg)
B118ATR001-A-S01	U for methylene chloride	0.0015	0.0261
B118ATR005-A-S05	U for methylene chloride	0.0013	0.0291
B054HA001-A-S01	U for methylene chloride	0.0022	0.0254
B054HA002-A-S01	U for methylene chloride	0.0015	0.0246
B178HA001-A-S03	U for methylene chloride	0.001	0.0226
B152HA001-A-S01	U for methylene chloride	0.0013	0.0247

MS/MSD Recoveries and Precision. A MS/MSD pair per 20 samples of the same matrix is required for low-level soils. For analytical batches without MS/MSDs a LCS/laboratory control sample duplicate [LCSD] is required. The laboratory met these requirements.

Two samples were spiked for MS/MSD analysis which meets the frequency requirement. One sample was spiked with all five analytes required by the QAPP for samples being analyzed for the full SW8260B analyte list. The other sample was analyzed for BTEX only and was correctly spiked with two analytes (benzene and toluene).

A total of 14 individual MS recoveries were evaluated. MS recoveries were within the project control limits for accuracy in all cases.

MS/MSD precision was within the RPD maximum limit of 40 percent for VOCs in soil by Method SW8260B for all MS/MSD pairs.

LCS/LCSD Recoveries and Precision. A single LCS was required to be analyzed in each analytical batch that included an MS/MSD pair. A LCS/LCSD pair was required in each analytical batch that did not include a MS/MSD pair. These requirements were met. In addition, the laboratory chose to analyze an LCSD in all five analytical batches. The correct target analytes were spiked.

All recoveries were within the project control limits for accuracy of 65-135 percent recovery. LCS/LCSD precision was within the RPD maximum limit of 40 percent for VOCs in soil by Method SW8260B.

Field Duplicate Precision. There were three soil field duplicate samples collected for VOC and oxygenates analysis by Method SW8260B. The frequency requirement for field duplicate collection of 10 percent was met. Two of the three field duplicate pairs had RPDs above the 50 percent control limit. Soil samples for volatiles were not homogenized in order to prevent losses of volatile compounds. All instances where the maximum RPD was exceeded were associated with low-level concentrations close to the PQL. These results were already estimated due to low concentration. There is no additional impact to DQOs. Table 5.1.1-2 shows the field duplicate pairs that did not meet the RPD control limit of 50 percent.

Table 5.1.1-2

SW8260B Soil Field Duplicate Pairs above the RPD Limit

Normal sample identification	Field duplicate identification	Analyte	Normal result (mg/kg)	Duplicate result (mg/kg)	RPD
B118ATR005-A-S03	B118ATR005-A-S01	Acetone	0.033	0.016	69
		Carbon disulfide	0.0035	0.011	103
		Trichlorofluoromethane	0.0025	<0.0001	200
B152HA001-A-S01	B152HA001-B-S01	Carbon disulfide	<0.0001	0.0022	200
		alpha-Methyldecalin (TIC)	0.05	0.091	58

Laboratory Replicate Precision. Laboratory replicates are not required for this method and were not performed.

Surrogate Recoveries. Surrogate compounds, 1-bromo-4-fluorobenzene (BFB), toluene-d8 (BZME) and 1,2-dichloroethane-d4 (1,2-DCA), were added to environmental and laboratory QC samples and used to measure method performance on a sample-specific basis.

Two samples (B054HA001-A-S01 and B054HA002-A-S01) had one surrogate recovery each above project control limits of 70-130 percent. Only the 4 detected VOC results in these samples were qualified as estimated due to a possible high bias (J). These samples had been previously analyzed, but the initial analysis had internal standard recovery problems, which would have qualified all results. Additional sample was not available to perform reanalysis due to the high surrogate recovery. These estimated results were considered contract-compliant and are considered usable for project decision making.

Instrument Calibration and Internal Standards. An initial calibration was performed for the low-level analytical method. Results were evaluated based on the QAPP requirements with the following clarifications and amendments:

- For all compounds except ketones (acetone, 2-butanone, 2-hexanone, and 4-methyl-2-pentanone), acrolein, and acrylonitrile, the results are rejected if the average relative response factor (RRF) was less than 0.05. For ketones, the results are rejected if the average RRF was less than 0.01. Acrolein and acrylonitrile have been dropped from the target analyte list.

- For all compounds using the average RRF for quantitation, the results are estimated if the relative standard deviation (RSD) of the RRFs from the average RRF is greater than 30 percent. The results are rejected if the RSD of the RRFs from the average RRF is greater than 60 percent.

- If the laboratory chose to perform a linear regression, then compounds with a correlation coefficient between 0.990 and 0.995 are estimated. All compounds with a correlation coefficient less than 0.990 are rejected.

The laboratory performed a second-source initial calibration verification (ICV) for both soil calibrations. Continuing calibration verification (CCV) standards were analyzed prior to each analytical sequence. The laboratory did not report any calibration problems and none were

observed during the validation and verification processes. Internal standard recoveries were within acceptance criteria for all reported sample analyses.

Analyte Identification and Analyte Quantitation. Analyte identification was performed using a relative retention time (RRT) as established in Method SW8260B.

The ion spectrum for identified target analytes and tentatively identified compounds (TICs) matched the associated standard spectrum for all positively identified analytes.

An MDL study was performed within the 12 months prior to sample analysis. The PQLs prior to moisture adjustment met the requirements of the QAPP and were supported by a low standard at or below that concentration. For several low-level soil samples, the percent moisture adjusted PQLs resulted in values that exceeded the maximum PQL listed in Table A-15 of the QAPP. The laboratory could not compensate for sample moisture content by analyzing a larger sample aliquot, as was done for other methods, because the use of the Encore® sampler limited the sample volume. In many cases, this resulted in analytes being not detected at a PQL 20-30 percent above the maximum PQL listed in the QAPP. This had no affect on DQOs since all reported PQLs were at least a factor of 20 below the associated industrial PRG.

Overall Assessment and Completeness. Overall, all data are considered usable for project decision making. All completeness goals were met. A summary of completeness for environmental samples, calculated as defined in Section 5.0, is presented in Table 5.1.1-3. Compliance with project requirements for laboratory and field QC is presented in Table 5.1.1-4.

Table 5.1.1-3

Environmental Sample Completeness for VOCs in Soil by SW8260B

				Number of results					Completeness			
Analyte	Samples planned(N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
All	16+2	16+3	5 0r 71	1151	0	0	10	18	100	100	99.1%	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.1.1-4

Laboratory and Field QC Sample Completeness for VOCs in Soil by SW8260B

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	100%	NR	100%	100%	100%	NR

NR – not required for this method

5.1.2 Volatile Organics and Oxygenates in Water Samples. Three environmental water samples, and four trip blanks (one BTEX only) were collected for VOCs and oxygenates analysis by Method SW8260B. All water samples were collected in 40 mL volatile organics analysis (VOA) vials and preserved with hydrochloric acid. EMAX analyzed the water samples in two laboratory batches. For a tabulated count of the samples and the batch QC samples, see Appendix D.

Preservation and Holding Times. Samples were collected in the proper containers and preserved correctly at <6°C. Sample pH readings were within the acceptance limit (pH less than 2) for VOCs. Preserved water samples were analyzed within the prescribed holding time of 14 days from the date of collection.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of one method blank per laboratory batch. A trip blank was placed in each sample cooler containing samples for VOC analysis.

No analytes were detected in either of the 2 method blanks. Methylene chloride was detected above the MDL but below one-half of the PQL in all 3 full-list trip blanks. The associated water samples were non-detect for methylene chloride and qualification was not required. No corrective action was required by the laboratory since blank concentrations did not exceed ½ the PQL and there was no impact to project DQOs.

MS/MSD Recoveries and Precision. An MS/MSD pair was required in each laboratory batch. An MS/MSD pair was prepared with 1 of the 2 laboratory batches.

Laboratory batch VOJ0501 did not contain a MS/MSD pair. This batch did contain a LCS/LCSD pair. Laboratory batch VOJ0501 contained only a trip blank. No environmental samples were analyzed in this laboratory batch. Therefore, contract-compliance was met.

All MS/MSD recoveries were within the project control limits for accuracy of 25 percent RPD for VOCs in water by Method SW260B.

LCS/LCSD Recoveries and Precision. A single LCS was required to be analyzed in each laboratory batch. This requirement was met. In addition, both laboratory batches contained an LCSD. The correct target analytes were spiked. All recoveries were within the project control limits for accuracy of 65-135 percent recovery. LCS/LCSD precision was within the RPD maximum limit of 25 percent for VOCs and oxygenates in water by Method SW8260B.

Field Duplicate Precision. There were no field duplicate water samples were collected for VOCs and oxygenates analysis by Method SW8260B. Compliance with the criteria for field duplicate precision defined in Table E-2 of the QAPP could not be evaluated. The frequency requirement for field duplicate collection of 10 percent was not met. Collection of a field duplicate was inadvertently omitted when water was not encountered at the location identified for field duplicate collection in the sampling plan. No other duplicate water samples were collected at subsequent sampling locations because no groundwater was encountered. Failing to collect the field duplicate impacts the quantitative assessment of completeness, which is reflected in the sampling completeness of 75 percent.

Laboratory Replicate Precision. Laboratory replicates are not required for this method and were not performed.

Surrogate Recoveries. Surrogate compounds BFB, BZME and 1,2-DCA were added to all environmental and laboratory QC samples and used to measure method performance on a sample-specific basis. All surrogate recoveries were within project control limits of 70-130 percent.

Instrument Calibration and Internal Standards. An initial calibration was performed. Results were evaluated based on the QAPP requirements with the following clarifications and amendments:

- For all compounds except ketones (acetone, 2-butanone, 2-hexanone, and 4-methyl-2-pentanone), acrolein, and acrylonitrile, the results are rejected if the average RRF was less than 0.05. For ketones, the minimum average RRF was changed to less than 0.01 based on technical discussions prior to the sampling effort because these compounds are poor performers by this method. Vinyl acetate was added to the list of poor performers that only required a minimum RF of 0.01 during the review process based on the professional judgement of the data reviewer. The method detection limit information presented by the laboratory showed that they could achieve the required sensitivity for vinyl acetate even with the lowered RF. (Acrolein and acrylonitrile have been dropped from the target analyte list.)

- For all compounds using the average RRF for quantitation, the results are estimated if the RSD of the RRFs from the average RRF is greater than 30 percent. The results are rejected if the RSD of the RRFs from the average RRF is greater than 60 percent.

- If the laboratory chooses to perform a linear regression, then compounds with a correlation coefficient between 0.990 and 0.995 are estimated. All compounds with a correlation coefficient less than 0.990 are rejected.

No initial calibration problems were noted.

The laboratory performed a second-source ICV. CCV standards were analyzed prior to each analytical sequence. The RPD between the initial and continuing calibration exceeded the 20 percent criteria for 3 compounds: acetone (23.8%), dichlorodifluoromethane (28%), and 2-butanone (34.6%). The acetone, dichlorodifluoromethane, and 2-butanone results in all 3 samples were qualified as non-detected with an estimated detection limit due to CCV problems. These results are considered contract-compliant since the requirements for data evaluation in Appendix E of the QAPP were more stringent than the laboratory's self-evaluation QA/QC criteria in Appendix D of the QAPP. These estimated results are still considered usable for site evaluation and DQOs have not been affected.

Internal standard recoveries were all within acceptance limits.

Analyte Identification and Analyte Quantitation. An MDL study was performed within the 12 months prior to sample analysis. The laboratory reported PQL values were equal to the PQL values listed in the QAPP and were supported by having the low standard in the initial calibration at or below the reported PQL.

The ion spectrum for identified target analytes and TICs matched the associated standard spectrum for all positively identified analytes.

Analyte identification was performed using a RRT as established in Method SW8260B.

Overall Assessment and Completeness. Overall, all non-rejected data met the requirements of the method and the QAPP, and are considered usable for project decision-making. The goal for QAPP compliance was met. This had no effect on DQOs since this is not a contaminant of concern. The sampling/field duplicate completeness goals were not met because of the lack of a field duplicate when water was not encountered at the planned duplicate sampling location. This presented a lack of good precision information, but the objectives for collecting primary sample data were met. All other completeness goals were met. A summary of environmental sample completeness, calculated as defined in Section 5.0, is presented in Table 5.1.2-1. A summary of laboratory and field QC sample completeness is presented in Table 5.1.2-2.

Table 5.1.2-1

Environmental Sample Completeness for VOCs in Water by SW8260B

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
All	3+1	3+0	71	213	0	0	9	5	100%	100%	95.7%	**75%**

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.1.2-2

Laboratory and Field QC Sample Completeness for VOCs in Water by SW8260B

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	100%	NR	100%	100%	**0%**	NR

NR – not required for this method

5.2 Polynuclear Aromatic Hydrocarbons (PAHs) by Method SW8310

5.2.1 PAHs in Soil Samples. Thirteen environmental soil samples plus 3 field duplicates were collected for PAH analysis by Method SW8310. The samples were collected in 6-inch metal sleeves and transported cold to EMAX. The soil samples were extracted in one batch with 1:1 acetone/methylene chloride using sonication Method SW3550B. The extracts were silica gel cleaned by Method SW3630B and analyzed by high performance liquid chromatography (HPLC) Method SW8310. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. Samples were collected in the proper containers and preserved correctly by being maintained at a temperature of <6°C until being extracted. Soil

samples were extracted within the prescribed holding time of 14 days from the date of collection and analyzed within 40 days of extraction.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of one method blank per laboratory batch.

No PAHs were detected above the MDL in the method blank. Equipment blanks are not required for soil samples and were not collected.

MS/MSD Recoveries and Precision. An MS/MSD pair was required in each extraction batch. The MS/MSD pair was required to be analyzed in all analytical batches associated with the extraction batch.

One sample within the single extraction batch was spiked for MS/MSD analysis. The MS/MSD pair was analyzed, with the remainder of the extraction batch, in a single batch

All MS/MSD recoveries were within the project control limits for accuracy of 40-140 percent recovery. MS/MSD precision was within the RPD maximum limit of 40 percent for PAHs in soil by Method SW8310.

LCS/LCSD Recoveries and Precision. A single LCS was required to be analyzed in each laboratory batch. This requirement was met. Since the batch contained an MS/MSD pair, an LCSD was not required.

The recoveries for all analytes in the LCS were within the project control limits for accuracy of 55-135 percent recovery for PAHs in soil by Method SW8310.

Field Duplicate Precision. There were 3 soil field duplicate samples collected for PAH analysis by Method SW8310. Two of the 3 field duplicate pairs had RPDs above the 50 percent control limit. Soil field duplicates were not homogenized prior to submittal. They were collected in separate sleeves from adjacent but discreet depth intervals. Therefore, sample heterogeneity is reflected in the analytical results for these samples. This nonconformance is discussed further in Sections 2.2 and 6.0.

In one case (B054HA001-A-S02), the detected result was below the PQL and was already qualified as an estimated value. There was no impact to the data set for that sample. For sample B152HA001-A-S02, phenanthrene was detected by the UV detector in both the primary and field duplicate sample at concentrations that agree within 15% (0.097 mg/kg and 0.11 mg/kg respectively). The peak at the retention time of phenanthrene on the fluorescence detector had a slight shoulder, indicating a possible co-elution with another compound. For the primary sample, the retention time of that peak on the fluorescence detector of 5.133 minutes was just outside the retention time of phenanthrene. For the field duplicate, the retention time of 5.125 minutes was just inside the RT window, so phenanthrene was identified as being present.

For the primary sample, since phenanthrene was not confirmed by the second detector, it was reported as not-detected (<0.004 mg/kg) from the 1:1 dilution. For the duplicate sample, the higher result from the fluorescence detector (0.34 mg/kg) was reported because of the requirement in SW-846 to report the higher result when primary and confirmation results differ by >40%.

The presence of phenanthrene at this location is not clearly established. Although the primary sample reports phenanthrene as ND, the data user should be aware that there is a possible anomaly with the data due to differing results between duplicates.

The frequency requirement for field duplicate collection of 10 percent was met. Table 5.2.1-1 shows the field duplicate pairs that did not meet the RPD control limit of 50 percent.

Table 5.2.1-1

SW8310 Soil Field Duplicate Pairs above the RPD Limit

Normal sample identification	Field duplicate identification	Analyte	Normal result (mg/kg)	Duplicate result (mg/kg)	RPD
B152HA001-A-S02	B152HA001-B-S02	Phenanthrene	<0.004	0.34	200
B054HA001-A-S02	B054HA001-B-S02	Phenanthrene	0.061	<0.0018	200

Laboratory Replicate Precision. Laboratory replicates are not required for this method and were not performed by the laboratory.

Surrogate Recoveries. The surrogate terphenyl-d14 was added to all environmental and laboratory QC samples to measure method performance on a sample-specific basis. Three samples had surrogate recoveries above the project control limits of 40-140 percent. Based on the broadened shape of the surrogate peak, the high surrogate recoveries were likely due to co-elution with a peak in the petroleum hydrocarbon pattern which was present. The flagging criterion in Appendix E of the QAPP for high surrogate recovery specifies that detected PAH results should be flagged J as estimated; non-detected analytes are unaffected. Twelve detected results were qualified as estimated based on high surrogate recoveries. Eight of the twelve results were already qualified as estimated because the reported concentration was below the PQL. Table 5.2.1-2 shows the affected samples and results.

The high bias encountered does not affect the usability of the data. Even with the high bias present, no qualified results exceeded 3 percent of the applicable industrial PRG, as demonstrated by Table 5.2.1-3. No other evaluation criteria have been established for this site to date.

Table 5.2.1-2

SW8310 Qualified Soil Data Due to Surrogate Recovery

Location	Depth	Terphenyl-d14 % recovery	Analytes affected	Flag
B118ATR005-A-S06	6.50	730	Fluorene Indeno(1,2,3-c,d)pyrene	(J)
B152HA001-A-S02	4.30	248	Benzo(a)pyrene Benzo(g,h,i)perylene Benzo(k)fluoranthene Fluorene Indeno(1,2,3-c,d)pyrene	(J)
B152HA001-B-S02	4.30	267	Benzo(a)pyrene Benzo(k)fluoranthene Fluorene Phenanthrene Pyrene	(J)

Table 5.2.1-3

SW8310 Estimated Values vs. PRGs

Analyte	Maximum reported high biased result (mg/kg)	Residential PRG (mg/kg)	Percent of PRG
Benzo(a)pyrene	0.0084	0.29	2.9%
Benzo(g,h,i)perylene	0.0052	NE	N/A
Benzo(k)fluoranthene	0.045	29	0.2%
Fluorene	0.13	33,000	<0.1%
Indeno(1,2,3-c,d)pyrene	0.019	2.9	0.7%
Phenanthrene	0.34	NE	N/A
Pyrene	0.027	54,000	<0.1%

NE = Not established N/A = Not applicable mg/kg = milligrams per kilogram

Instrument Calibration and Internal Standards. The laboratory did not report any calibration problems in the case narratives and none were observed during full validation or verification. After calibration, the laboratory ran a secondary-source ICV standard and all results were within the RPD maximum acceptance criterion of 15 percent. All results were also within the maximum limit of 15 percent difference (%D) in the CCV standards. Internal standards are not applicable to this method.

Analyte Identification and Analyte Quantitation. The list of laboratory reported target compounds agreed with those listed in the QAPP. An MDL study was performed within the 12 months prior to sample analysis. The laboratory reported PQL values prior to and after moisture correction were all below the PQL values listed in Table A-19 of the QAPP. The reported PQLs were supported by a low standard at or below that concentration.

Most results were reported from the primary ultraviolet (UV) detector. The laboratory properly confirmed all results above the PQL using a second fluorescence (FL) detector, with the exception of acenaphthylene. Acenaphthylene does not produce a response on the FL detector and cannot be confirmed by this method. All positive acenaphthylene results from the UV detector have been N flagged to denote tentative identifications for this compound.

The second-column confirmation precision for 10 results from 4 compounds (1 pyrene, 2 benzo(k)fluoranthene, 1 indeno(1,2,3-c,d)pyrene, and 6 phenanthrene) at 6 locations (B118ATR005, B178HA001, B178HA002, B178HA003, B152HA001, B054HA002) were above the 40 percent RPD limit specified in SW-846. In keeping with the requirement of SW846 Update III, the higher of the two values was reported for each sample. The results were flagged J as estimated. Three of the ten results were already qualified as estimated due to high surrogate recoveries. Six of the results were already considered as estimated due to their concentrations being less than the PQL. Only the one phenanthrene result from B178HA001-A-S02 was newly qualified. Since no PRG has been established for this compound, the data should be usable even with the potential for high bias. There is no additional effect on DQOs.

Overall Assessment and Completeness. The data generally met the requirements of the method and the QAPP and are considered usable for project decision-making. All completeness goals were met. A summary of sample completeness, calculated as defined in Section 5.0, is presented in Table 5.2.1-4. A summary of laboratory and field QC sample completeness is presented in Table 5.2.1-5.

Table 5.2.1-4

Environmental Sample Completeness for PAHs in Soil by SW8310

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
All	13+2	13+3	16	256	0	0	18	20	100%	100%	93.0	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.2.1-5

Laboratory and Field QC Sample Completeness for PAHs in Soil by SW8310

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	100%	100%	100%	NR

NR – not required for this method

5.2.2 PAHs in Water Samples. Three water samples were collected for PAH analysis by Method SW8310. The samples were collected in 1-liter amber bottles and transported cold to EMAX where they were extracted with methylene chloride using continuous liquid-liquid extraction Method SW3520C. The extracts were silica gel cleaned by Method SW3630B and analyzed by HPLC Method SW8310. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. Samples were collected in the proper containers and transported to the laboratory. All samples were transported and stored correctly by being maintained at a temperature of <6°C until extraction. Water samples were extracted within the prescribed holding time of 7 days from the date of collection and analyzed within 40 days of extraction.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of 1 method blank per laboratory batch. There were no equipment blanks associated with the samples analyzed for PAHs in water by Method SW8310. Since samples were collected using disposable bailers, no equipment blanks were required. No PAHs were detected above the MDL in the method blanks.

MS/MSD Recoveries and Precision. An MS/MSD pair was required in each extraction batch. The MS/MSD pair was required to be analyzed in all analytical batches associated with the extraction batch.

None of the three samples were spiked for MS/MSD analysis. The laboratory did not receive sufficient sample quantities to perform the required MS/MSD analyses. The requirement for an MS/MSD was replaced by the requirement to add an LCSD to the batch, based on limited sample volume, in an e-mail from Julia Halsne on 22 September 2000 (see Appendix J). The evaluation of precision was made using the LCS/LCSD pair. The evaluation of accuracy in the matrix was limited to review of surrogate recoveries.

LCS/LCSD Recoveries and Precision. A single LCS is required to be analyzed in each laboratory batch when an MS/MSD pair is present. When a spike pair is not present, an LCSD must also be prepared in the batch. This requirement was met. The recoveries for all analytes in the LCS/LCSD were within the project control limits for accuracy of 55-135 percent recovery.

Field Duplicate Precision. There were no water field duplicate samples collected for PAH analysis by Method SW8310. Compliance with the criteria for field duplicate precision defined in the Table E-2 of the QAPP could not be evaluated. The frequency requirement for field duplicate collection of 10 percent was not met. Collection of a field duplicate was inadvertently omitted when water was not encountered at the location identified for field duplicate collection in the sampling plan. No other duplicate water samples were collected at subsequent sampling locations because no groundwater was encountered. Failing to collect the field duplicate impacts the quantitative assessment of completeness, which is reflected in the sampling completeness of 75 percent.

Laboratory Replicate Precision. Laboratory replicates are not required for this method and were not performed by the laboratory.

Surrogate Recoveries. The surrogate terphenyl-d14 was added to all environmental and laboratory QC samples to measure method performance on a sample-specific basis. One sample had a surrogate recovery above the project control limits of 40-140 percent. The flagging criterion in the QAPP for high surrogate recovery specifies that detected PAH results would be flagged J as estimated; non-detects are unaffected. One detected fluorene result (0.17 micrograms per liter (µg/L) at 7.5 feet bgs in B118ATR005-A-W01) is qualified as estimated due to high surrogate recoveries. The high biased result is still well below the tap water PRG of 240 µg/L. No other evaluation criterion has been established for fluorene in water at this site. The data quality objectives were met.

Instrument Calibration and Internal Standards. The laboratory did not report any calibration problems and none were observed during the validation or verification process. After initial calibration, the laboratory ran a secondary-source ICV standard and all results were within the RPD maximum acceptance criterion of 15 percent. All results were also below the RPD maximum limit of 15 percent in the CCV standards. Internal standards are not applicable to this method.

Analyte Identification and Analyte Quantitation. The list of laboratory reported target compounds agreed with those listed in the QAPP. An MDL study was performed within the 12 months prior to sample analysis. The laboratory reported PQL values matched the PQL values listed in Table A-19 of the QAPP and were supported by a low standard at or below that concentration.

Most results were reported from the primary UV detector. The laboratory properly confirmed all results above the PQL using a second FL detector, with the exception of acenaphthylene.

Acenaphthylene does not produce a response on the FL detector and cannot be confirmed by this method. Acenaphthylene was not detected in any of the samples.

Overall Assessment and Completeness. All data generally met the requirements of the method and the QAPP and are considered usable for project decision-making. The sampling/field duplicate completeness goals were not met because of the lack of a field duplicate when water was not encountered at the planned duplicate sampling location, and no water was encountered at subsequent locations. This presented a lack of good precision information, but the objectives for collecting primary sample data were met. The MS/MSD frequency was not met, but other sources of information about accuracy and precision in the matrix were available. All other completeness goals were met. A summary of environmental sample completeness, calculated as defined in Section 5.0, is presented in Table 5.2.2-1. A summary of laboratory and field QC sample completeness is presented in Table 5.2.2-2.

Table 5.2.2-1

Environmental Sample Completeness for PAHs in Water by SW8310

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
All	3+1	3+0	16	48	0	0	1	1	100%	100%	97.9	**75**

Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.2.2-2

Laboratory and Field QC Sample Completeness for PAHs in Water by SW8310

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	**0%**	100%	**0%**	NR

NR – not required for this method

5.3 Volatile Petroleum Hydrocarbons as GROs by Method SW8015B

5.3.1 Volatile Petroleum Hydrocarbons as GROs in Soil Samples by Method SW8015B. Two environmental soil samples and 1 field duplicate were collected for volatile petroleum hydrocarbons quantitated as GROs. GROs were quantitated between the hydrocarbon range of 2-methylpentane (approximately C-6) to 1,2,4-trimethylbenzene (approximately C-10). The samples were collected in Encore® samplers and transported cold to the laboratory, where they were transferred to methanol for mid-level analysis by gas chromatography (GC) Method

SW8015B. EMAX analyzed the soil samples in one laboratory batch. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. The samples were collected in the proper Encore® containers and stored correctly by being maintained at a temperature of <6°C. All samples were transferred to methanol within 48 hours of collection. They were analyzed within the prescribed holding time of 14 days from the date of collection.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of 1 method blank per laboratory batch. GRO was detected above the MDL in the method blank. Since the blank results were less than ½ the PQL, no corrective action was required by the laboratory and the results are considered contract-compliant. All elevated estimated detection limits were still below the Tri-Regional maximum PQL for gasoline of 1.0 mg/kg. The lack of trip blanks was an error on the part of the FA/BC team, and a corrective action memo was sent to the project team on 16 January 2001 to prevent future occurrences of the same problem. A copy of the corrective action memo is attached in Appendix J. Equipment blanks are not required for soil samples and were not collected. Results qualified due to method blank contamination are presented in Table 5.3.1-1.

Table 5.3.1-1

GRO Qualified Soil Results due to Blank Contamination

Location ID	Flag	Estimated DL (mg/kg)	Associated PQL (mg/kg)
B054HA001-B-S01	U	0.91	1.12
B054HA002-A-S01	U	0.74	1.15

mg/kg = milligrams per kilogram

MS/MSD Recoveries and Precision. An MS/MSD pair was required in each extraction batch. The MS/MSD pair was required to be analyzed in all analytical batches associated with the extraction batch.

One sample was spiked as required for MS/MSD analysis and was analyzed in the single analytical batch.

Recoveries were within the project control limits for accuracy of 65-135 percent recovery in the MS and MSD. MS/MSD precision was within the RPD maximum limit of 40 percent for GRO in soil by Method SW8015B.

LCS/LCSD Recoveries and Precision. A single LCS was required to be analyzed in each laboratory batch. This requirement was met. In addition, the laboratory batch contained an LCSD. All recoveries were within the project control limits for accuracy of 65-135 percent recovery. LCS/LCSD precision was within the RPD maximum limit of 40 percent for GRO in soil by Method SW8015B.

Field Duplicate Precision. There was one soil field duplicate sample collected for GRO analysis by Method SW8015B. The field duplicate pair had an RPD within the 50 percent control limit. The frequency requirement for field duplicate collection of 10 percent was met.

Laboratory Replicate Precision. Laboratory replicates are not required for this method.

Surrogate Recoveries. Surrogate compounds BFB and 1,1,1-trifluorotoluene (TFT) were added to environmental and laboratory QC samples and used to measure method performance on a sample-specific basis. All surrogate recoveries were within project control limits of 65-135 percent recovery.

Instrument Calibration and Internal Standards. All initial and continuing calibration requirements were met. The laboratory did not report any calibration problems and none were observed during the validation and verification processes. Internal standards are not applicable to this method.

Analyte Identification and Analyte Quantitation. The laboratory did not report any analyte identification problems and none were observed during the validation and verification processes. All peaks identified between the retention times of 2-methylpentane and 1,2,4-trimethylbenzene were quantitated as GRO. Heavier hydrocarbons observed on the chromatogram above the retention time of 1,2,4-trimethylbenzene are analyzed using the extractable TPH method.

An MDL study was performed within the 12 months prior to sample analysis. The PQLs, prior to moisture adjustment, met the requirements of the QAPP and were supported by a low standard at or below that concentration. For several soil samples, the percent moisture adjusted PQLs resulted in values that exceeded the maximum PQL listed in Table A-7 of the QAPP. The laboratory could not compensate for sample moisture content by analyzing a larger sample aliquot, as was done for other methods, because the use of the Encore® sampler limited the sample volume. In many cases, this resulted in analytes being not detected at a PQL 10-15 percent above the maximum PQL listed in the QAPP.

Overall Assessment and Completeness. Overall, the data are considered usable for project decision-making. Two out of three GRO results had estimated elevated detection limits because of method blank contamination, causing the analytical completeness to fall to 33 percent. These elevated detection limits are below the Tri-Regional Guideline maximum PQL for gasoline of 1.0 mg/kg. Data quality objectives were met. All other calculated completeness values met established goals presented in Section 5.0, with the exception of trip blank collection. The impact of the missing trip blank is unknown. A summary of environmental sample completeness, calculated as defined in Section 5.0, is presented in Table 5.3.1-2. A summary of laboratory and field QC completeness is presented in Table 5.3.1-3.

Table 5.3.1-2

Environmental Sample Completeness for GRO in Soil by SW8015B

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
GRO	2+1	2+1	1	3	0	0	2	0	100%	100%	**33%**	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.3.1-3

Laboratory and Field QC Sample Completeness for GRO in Soil by SW8015B

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	**0%**	NR	100%	100%	100%	NR

NR – not required for this method

5.4 Extractable Petroleum Hydrocarbons as DROs and RROs by Method SW8015B

5.4.1 DROs and RROs in Soil Samples. Sixteen environmental soil samples plus 3 field duplicates were collected for extractable petroleum hydrocarbons quantitated as DROs and RROs.

DROs were quantitated against diesel #2 between the hydrocarbon range of decane (C-10) to tetracosane (C-24). RROs were quantitated against SAE10W30 motor oil between the hydrocarbon range of eicosane (C-20) to tetratriacontane (C-34). Results originally submitted by the laboratory used the wrong quantitation ranges. A corrective action memo was sent (see Appendix J) and the laboratory re-quantitated the sample concentrations using the correct carbon ranges.

The samples were collected in 6-inch metal sleeves and transported cold to EMAX where they were extracted with 1:1 acetone/methylene chloride in 3 batches. Three samples (B028TR001-A-S02, B178HA001-A-S02, and B178HA001-A-S04) in two batches were prepared using Pressurized Fluid Extraction Method SW3545. Method SW3545 is not approved in the QAPP. However, this method is approved for other USACE projects and project impact, if any, is minimal since the detection limit was similar to that of SW3550C. The remaining 16 samples were extracted using ultrasonic digestion Method SW3550C. The extracts were silica gel cleaned by Method SW3630B and analyzed by GC Method SW8015B. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. Samples were collected in the proper containers and preserved correctly by being maintained at a temperature of <6°C until being extracted by Method SW3545. Two samples (B178HA001-A-S02 and B178HA001-A-S04) were extracted 2 days past the 14 day holding time. The DRO and RRO results for these two samples are qualified as estimated. The COC, as filled out in the field, did not identify the need for DRO/RRO analysis. This omission was identified when copies of the COCs were reviewed by FA/BC in the home office. The laboratory was contacted and instructed to add the request for DRO/RRO analysis by SW8015B after the holding time had expired. The results are considered contract compliant since the holding time violation was outside the control of the laboratory.

The holding time violation was not severe, but data should be considered biased low. The DRO/RRO results for sample B178HA001-A-S02 (12/27 mg/kg, respectively) are not likely to have exceeded the Tri-Regional Guideline maximum PQLs of 50/500 mg/kg even when bias is accounted for. The results for sample B178HA001-A-S04 (110/360) show that the limit for DRO has been exceeded and that the limit for RRO may have been exceeded when bias is accounted for. Since one of the two samples can be clearly shown to be below evaluation

criteria and the other clearly exceeds criteria, the DQOs have been met despite the holding time qualification of the data.

All other soil samples were extracted within the prescribed holding time of 14 days from the date of collection. All samples were analyzed within 40 days of extraction.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of 1 method blank per laboratory batch. Equipment blanks are not required for soil samples and were not collected.

DRO was detected above the MDL but below one-half the PQL in 1 of 3 method blanks. No corrective action was required by the laboratory and results are considered contract compliant. RRO was not detected above the MDL in any method blanks. All sample DRO results were greater than 5 times the blank amount. No results were qualified due to blank contamination and DQOs were not affected.

MS/MSD Recoveries and Precision. An MS/MSD pair was required in each extraction batch. The MS/MSD pair is required to be analyzed in all analytical batches associated with the extraction batch.

Two samples were spiked for MS/MSD analysis. One MS/MSD pair was prepared with 2 of 3 extraction batches. Recoveries were within the project control limits for accuracy of 65-135 percent recovery. MS/MSD precision was within the RPD maximum limit of 40 percent for DROs in soil by Method SW8015B.

Laboratory batch DSJ007S, which only contained one project sample (B028TR001-A-S02), did not contain an MS/MSD pair. The batch did contain an LCS/LCSD pair with which to evaluate precision. One DRO and one RRO results were not contract-compliant due to this failure. However, since 2 out of 19 samples were spiked for a frequency of greater than 1 in 10, and matrix interferences were not identified in those samples, sufficient information exists to evaluate the overall data set. There is no impact to DQOs.

LCS/LCSD Recoveries and Precision. A single LCS was required in each extraction batch. The LCS is required to be analyzed in all analytical batches associated with the extraction batch. These requirements were met. In addition, an LCSD was analyzed in 2 of 3 laboratory batches

All recoveries were within the project control limits for accuracy of 65-135 percent recovery. LCS/LCSD precision was within the RPD maximum limit of 40 percent for DROs in soil by Method SW8015B.

Field Duplicate Precision. There were 3 soil field duplicate samples collected for DRO and RRO by Method SW8015B. The frequency requirement for field duplicate collection of 10 percent was met.

One of the 3 field duplicate pairs had RPDs above the 50 percent control limit. Raw laboratory data and field records were reviewed. No explanation for the largely varying results was observed. Soil field duplicates were not homogenized prior to submittal. They were collected in separate sleeves from adjacent but discreet depth intervals. Therefore, sample heterogeneity is reflected in the analytical results for these samples. This nonconformance is discussed further

in Sections 2.2 and 6.0. Table 5.4.1-1 shows the field duplicate pairs that did not meet the RPD control limit of 50 percent.

Table 5.4.1-1

SW8015B (DRO/RRO) Field Duplicate Pairs* above the RPD Limit

Normal sample identification	Field duplicate identification	Analyte	Normal result (mg/kg)	Duplicate result (mg/kg)	RPD
B152HA001-A-S02	B152HA001-B-S02	DRO	320	160	67
		RRO	64	<12	200

* Only pairs where at least one of the results is at a concentration above the PQL are listed.

Laboratory Replicate Precision. Laboratory replicates are not required for this method and were not performed by the laboratory.

Surrogate Recoveries. Surrogate compounds bromobenzene (BBZ) and n-hexacosane (C-26) were added to environmental and laboratory QC samples and used to measure method performance on a sample-specific basis.

Matrix interference caused the n-hexacosane recoveries in 3 samples to be calculated incorrectly. The recovery of the bromobenzene surrogate was used to evaluate method performance for these samples. All other surrogate recoveries were within the project control limits for accuracy of 65-135 percent recovery.

Instrument Calibration and Internal Standards. All initial and continuing calibration requirements were met. Internal standards are not applicable to this method.

Analyte Identification and Analyte Quantitation. An MDL study was performed within the 12 months prior to sample analysis. The reported PQLs were supported by a low standard at that concentration, but exceeded the maximum PQLs in the QAPP. However, the reported PQLs met the requirements of the laboratory contract, which will be modified for future work to comply with QAPP requirements. Reported PQLs met the San Francisco Bay Region's Risk Based Screening Level requirements. See Section 6.0 for additional details. Table 5.4.1-2 shows a comparison of obtained vs. desired reporting limits.

Fourteen soil samples had hydrocarbons reported in both the DRO and RRO ranges. When this happened, the overlapping area of quantitation between the two ranges (C20-C24) was manually evaluated to see if both or only a single type of petroleum hydrocarbon was present.

The chromatograms for two samples (B152HA001-A-S02 and it's field duplicate) showed evidence of diesel that tailed slightly into the RRO range. There no evidence of a heavier hydrocarbon or motor oil pattern in these 2 samples. The RRO results for these samples were flagged N as a presumptive identification with a reason code of U. The U reason code indicates that the RRO result is actually part of the DRO pattern and is fully quantitated in the DRO fraction.

Table 5.4.1-2

SW8015B (DRO/RRO) Reporting Limits Comparison

Analyte	Matrix/units	Reported MDL range	Reported PQL range	QAPP PQL requirement	Lab Contract PQL requirements	Tri-Regional Max PQL requirement*	RSBL**: GW IS a potential DW source	RSBL**: GW IS NOT a potential DW source
DRO	Soil/mg/kg	1.6 – 1.8	4.4 – 5.0	1.0	5.0	1.0	100	500
RRO	Soil/mg/kg	11 - 13	44 - 50	10.0	50.0	50.0	1000	1000
DRO	Water/µg/L	64 – 70	95 - 100	50.0	100	50.0	100	640
RRO	Water/µg/L	51-54	480 - 520	500	500	5,000	100	640

**The Tri-Regional guidelines for DRO and RRO are taken from the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites', 10 August, 1990 prepared by the North Coast, San Francisco Bay, and Central Valley Regional Water Quality Control Boards. [Residual range organics uses the listed requirement for oil and grease (O&G).]*

***RSBLs are taken from "Application of Risk-Based Screening Levels and Corrective Action to Sites with Contaminated Soil and Groundwater" - Draft, April 2000, prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.*

The majority of chromatograms showed evidence of a mid-range hydrocarbon pattern that spread across both the diesel and residual ranges. The samples from Buildings 26, 54, and 118A appear to represent the same type of hydrocarbon mixture. The chromatogram shows a "hump" centered at around the same retention time as diesel #2, but which contains significantly heavier components than diesel #2, going out to around C32 or C33 (diesel #2 usually ends around C28 or C29). The samples from Building 178 also show evidence of a mid-range hydrocarbon, but the make-up is somewhat heavier than that of the other buildings. The pattern is still that of a lighter hydrocarbon than motor oil. It is likely that these are two types of fuel oils. Since no chromatograms for various fuel and/or bunker oils were available for comparison, no exact identification can be made.

Overall Assessment and Completeness. Overall, the data are usable for project decision-making. QAPP compliance completeness fell below 100 percent, and the QAPP specified MS/MSD frequency were not met, but as indicated in the preceding text, this did not affect the ability to meet DQOs. All other completeness goals were met. A summary of environmental sample completeness, calculated as defined in Section 5.0, is presented in Table 5.4.1-3. A summary of laboratory and field QC completeness is presented in Table 5.4.1-4.

Table 5.4.1-3

Environmental Sample Completeness for DRO and RRO in Soil by SW8015B

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
All	16+2	16+3	2	38	2	0	4	7	94.7	100%	90%	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.4.1-4

Laboratory and Field QC Sample Completeness for DRO and RRO in Soil in SW8015B

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	**66.7**	100%	100%	NR

NR – not required for this method

5.4.2 DROs and RROs in Water Samples. Three water samples were collected for extractable petroleum hydrocarbons quantitated as DROs and RROs. DROs were quantitated against diesel #2 between the hydrocarbon range of decane (C-10) to tetracosane (C-24). RROs were quantitated against SAE10W30 motor oil between the hydrocarbon range of eicosane (C-20) to tetratriacontane (C-34). Results originally submitted by the laboratory used the wrong quantitation ranges. A corrective action memo was sent (see Appendix J) and the laboratory re-quantitated and re-reported the sample concentrations using the correct carbon ranges.

The samples were collected in 1-liter amber bottles and transported cold to EMAX where they were extracted with methylene chloride in 1 batch using continuous liquid/liquid extraction Method SW3520C. The extracts were silica gel cleaned by Method SW3630B and analyzed by GC Method SW8015B. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. Samples were collected in the proper containers and preserved correctly by being maintained at a temperature of <6°C. All water samples were extracted within the prescribed holding time of 7 days from date of collection and analyzed within 40 days of extraction.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of 1 method blank per laboratory batch. DROs and RROs were not

detected above the MDL in the method blank. There were no equipment blanks associated with the samples analyzed for DROs and RROs in water by Method SW8015B. Since samples were collected with disposable bailers, no equipment blanks were required.

MS/MSD Recoveries and Precision. An MS/MSD pair was required in each extraction batch. The MS/MSD pair is required to be analyzed in all analytical batches associated with the extraction batch.

None of the three samples were spiked for MS/MSD analysis. The laboratory did not receive sufficient sample quantities to perform the required MS/MSD analysis. The requirement for an MS/MSD was replaced by the requirement to add an LCSD to the batch, based on limited sample volume, in an e-mail from Julia Halsne on behalf of the USACE on 22 September 2000 (see Appendix J). Batch precision was shown to be acceptable through evaluation of the LCS/LCSD pair and recovery in the matrix was shown to be acceptable through evaluation of sample specific surrogate recoveries. The lack of MS/MSD data has no known impact.

LCS/LCSD Recoveries and Precision. A single LCS was required in each extraction batch. The LCS is required to be analyzed in all analytical batches associated with the extraction batch. These requirements were met. In addition, an LCSD was prepared and analyzed with the laboratory batch since an MS/MSD pair was not present. All recoveries were within the project control limits for accuracy of 65-135 percent recovery. LCS/LCSD precision was within the RPD maximum limit of 25 percent for DRO in water by Method SW8015B.

Field Duplicate Precision. There were no water field duplicate samples collected for DRO and RRO analysis by Method SW8015B. Therefore, compliance with the criteria for field duplicate precision defined in the Table E-2 of the QAPP could not be evaluated, and the frequency requirement for field duplicate collection of 10 percent was not met. Collection of a field duplicate was inadvertently omitted when water was not encountered at the location identified for field duplicate collection in the sampling plan. No other duplicate water samples were collected at subsequent sampling locations because no groundwater was encountered. Failing to collect the field duplicate impacts the quantitative assessment of completeness, which is reflected in the sampling completeness of 75 percent.

Laboratory Replicate Precision. Laboratory replicates are not required for this method and were not performed by the laboratory.

Surrogate Recoveries. Surrogate compounds BBZ and C-26 were added to environmental and laboratory QC samples and used to measure method performance on a sample-specific basis. All surrogate recoveries were within project control limits of 65-135 percent.

Instrument Calibration and Internal Standards. All calibration requirements were met. Internal standards are not applicable to this method.

Analyte Identification and Analyte Quantitation. An MDL study was performed within 12 months prior to sample analysis. The PQLs for RRO met QAPP requirements and were supported by a low standard at that concentration for all samples except B118ATR004-A-W01 because the container only held 960 mL rather than a full liter. For DRO all three sample specific reported PQLs exceeded the QAPP limit of 50 µg/L, ranging from 95 to 105 µg/L. This had no effect for sample B118ATR005-A-W01, since DRO was detected above the reported PQL in that sample (2,700 µg/L). The reported PQLs of 95 -105 µg/L did meet the San

Francisco Bay Region's Risk Based Screening requirement for middle distillate fuels of 100 µg/L above a drinking water aquifer and 640 µg/L above a non-drinking water aquifer.

One water sample had hydrocarbons reported in both the DRO and RRO ranges. When this happened, the overlapping area of quantitation between the two ranges (C20-C24) was manually evaluated to see if both or only a single type of petroleum hydrocarbon was present.

The chromatogram for sample B118ATR005-A-W01, which was the only water sample containing measurable quantities of hydrocarbons, showed evidence of a mid-range fuel oil of the same make-up that was identified in the soil samples from the same trench that extended into both the DRO and RRO ranges.

Overall Assessment and Completeness. Overall, the data are usable for project decision-making. The sampling/field duplicate completeness goals were not met because of the lack of a field duplicate when water was not encountered at the planned duplicate sampling location. This presented a lack of good precision information, but the objectives for collecting primary sample data were met. The MS/MSD frequency was not met, but other sources of information about accuracy and precision in the matrix were available. All other completeness goals were met. A summary of environmental sample completeness, calculated as defined in Section 5.0, is presented in Table 5.4.2-1. A summary of laboratory and field QC sample completeness is presented in Table 5.4.2-2.

Table 5.4.2-1

Environmental Sample Completeness for DRO and RRO in Water by SW8015B

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
All	3+1	3+0	2	6	0	0	0	1	100%	100%	100%	**75%**

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.4.2-2

Laboratory and Field QC Sample Completeness for DRO and RRO in Water by SW8015B

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	**0%**	100%	**0%**	NR

NR – not required for this method

5.5 Total Metals by Method SW6010B

5.5.1 Total Metals in Soil Samples. A total of 7 environmental soil samples and 2 field duplicates were collected for metals analysis by ICP Method SW6010B. The samples were analyzed for the Method SW6010 full analyte list given in Table A-1 of the QAPP.

The samples were also analyzed for antimony by Method SW6010B after it was determined that Method SW7041 had a systematic low bias in the MS.

The samples were collected in 6-inch stainless steel sleeves and transported cold to the laboratory. They were digested in 1 preparation batch and run in 3 analytical batches by EMAX using the modified Method SW3050B procedure described in Section 4.0 for preparation and Method SW6010B for analysis. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. Samples were collected in the proper containers and preserved correctly by being maintained at a temperature of <8°C until being digested by modified Method SW3050B. Soil samples were digested and analyzed within the prescribed holding time of 6 months from the date of collection for all analytes.

Laboratory Method Blanks and Field QC Blanks. A laboratory method blank was prepared at the required frequency of 1 method blank per digestion batch. All samples were prepared in a single digestion batch. The laboratory failed to re-analyze the laboratory blank in 1 of 3 analytical batches. A total of 29 results (9 aluminum, 9 iron, 6 manganese, 2 magnesium, 1 barium, 1 calcium, and 1 nickel) were qualified as not contract-compliant due to missing laboratory QC. This analytical batch was associated with the dilution and reanalysis of samples with concentrations which exceeded the high standard. Method blank contamination is not a relevant issue for these analyses and the requirement has been approved for removal in the upcoming QAPP revision. Aluminum and lead were detected above the MDL but below one-half the PQL in the method blank. All sample results were greater than 5 times the blank amount. Therefore, no results were qualified due to method blank contamination and there was no impact on DQOs. There were no equipment blanks associated with any of the soil samples analyzed for metals by Method SW6010B.

The initial calibration blank (ICB) detected antimony, barium, beryllium, calcium, and molybdenum above the MDL. Ten results (3 molybdenum, 5 antimony, and 2 beryllium) in 9 samples were qualified as non-detect with an elevated estimated detection limit due to the ICB contamination. All ten results with the elevated detection limits are at least 2 orders of magnitude below the corresponding industrial PRGs (Sb = 820 mg/kg; Be = 2,200 mg/kg; and Mo = 10,000 mg/kg). The ability to meet DQOs was not affected. Table 5.5.1-1 lists the aluminum, antimony, and molybdenum results detected in the ICB and associated samples.

MS/MSD Recoveries and Precision. A single MS analysis was required for each analytical batch. The single preparation batch contained an MS. All 3 analytical batches analyzed the MS.

MS recoveries were not evaluated when the parent sample concentration was greater than 4 times the spike concentration. The spike results for aluminum and iron were not evaluated due to the sample concentration being more than 4 times the spike concentration.

Table 5.5.1-1

Samples with Associated ICB Contamination

Blank type/Location ID	Concentration of metals, mg/kg			Flag
	Sb	Be	Mo	
ICB	4.9	0.073	0.93	----
B026TR001-A-S02	7.13		3.94	U for Sb, Mo
B026TR001-A-S04			1.81	U for Mo
B178HA001-A-S02	11.5		1.47	U for Sb, Mo
B178HA001-A-S04	4.42			U for Sb
B152HA001-B-S02	5.36			U for Sb
B054HA001-A-S02	5.05			U for Sb
B054HA001-B-S02		0.26		U for Be
B054HA002-A-S02		0.336		U for Be

Sb - antimony Be – beryllium Mo - molybdenum

Evaluated recoveries were within the project control limits for accuracy of 75-125 percent recovery. Antimony was evaluated against preliminary control limits of 60-125 percent (actual recoveries for antimony exceeded 90 percent).

LCS/LCSD Recoveries and Precision. A single LCS was required for each sample preparation batch and was to be analyzed in each analytical batch. The laboratory prepared an LCS/LCSD in the single digestion batch. The laboratory failed to re-analyze the LCS/LCSD in analytical batch I07J010. All 29 results [9 aluminum (Al), 9 iron (Fe), 6 manganese (Mn), 2 magnesium (Mg), 1 barium (Ba), 1 calcium (Ca), and 1 nickel (Ni)] in analytical batch I07J010 are not contract compliant due to the lack of laboratory QC. However, since recoveries for all analytes were within the project control limits for accuracy of 80-120 percent recovery and the RPD limit of 35 percent for total metals in soil was met in the other two analytical batches that shared the same preparation batch QC (preparation batch IPI052S), the protocol failure likely had no actual affect on data quality and data were not flagged. MS recoveries for Mn, Mg, Ba, Ca, and Ni were all acceptable for that analytical batch, substantiating the assumption that the batch was in control. (Native Al and Fe concentrations were too high to obtain meaningful spike recovery information.)

Field Duplicate Precision. There were 2 soil field duplicate sample pairs collected for total metals by Method SW6010B. One of the 2 field duplicate pairs had RPDs above the 50 percent control limit. The frequency requirement for field duplicate collection of 10 percent was met. Soil field duplicates were not homogenized prior to submittal. They were collected in separate sleeves from adjacent but discreet depth intervals. Therefore, sample heterogeneity is reflected in the analytical results for these samples. This nonconformance is discussed further in Sections 2.2 and 6.0. Table 5.5.1-2 shows the results for the field duplicate pair that did not meet the RPD control limit of 50 percent.

Laboratory Replicate Precision. One laboratory replicate per analytical batch was required by the QAPP. This requirement was met. All RPDs were within the Method SW6010B maximum RPD limit of 35 percent for total metals in soil.

Instrument Calibration and Internal Standards. The laboratory did not report any calibration problems and none were observed during the verification and validation processes. Internal standards are not applicable to this method.

Table 5.5.1-2

SW6010B Soil Field Duplicate Pairs* above the RPD Limit

Normal sample ID	Field duplicate ID	Analyte	Normal result (mg/kg)	Duplicate result (mg/kg)	RPD
B054HA001-A-S02	B054HA001-B-S02	Barium	43.8	23	62
		Calcium	1960	1160	52
		Lead	7.17	3.7	64
		Manganese	105	62.5	51

* Only pairs with at least one of the results is at a concentration above the PQL are listed.

Analyte Identification and Analyte Quantitation. The soil PQL values reported by the laboratory were all below the maximum PQL values listed in Table A-1 of the QAPP and were supported by a low standard at that concentration. The MDL study was performed within the 12 months prior to sample analysis.

Overall Assessment and Completeness. QAPP compliance was reduced below 100 percent for aluminum, barium, calcium, iron, magnesium, manganese, and nickel due to the laboratories failure to re-analyze the preparation batch QC samples during the dilution reanalysis batch. As described in the previous sections, this had little or no effect on the data quality. The analytical completeness goal of 90 percent was not met for antimony, beryllium, and molybdenum due to contamination in the continuing calibration blanks. This had no effect on DQOs since the related industrial PRGs are orders of magnitude above the reported values for the affected compounds. All other completeness goals were met. Overall, the data are considered usable for project decision-making. A summary of completeness, calculated as defined in Section 5.0, is presented in Table 5.5.1-3. A summary of laboratory and field QC sample completeness is presented in Table 5.5.1-4.

Table 5.5.1-3

Environmental Sample Completeness for Total Metals in Soil Samples by SW6010B

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total Results	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
Aluminum	7+1	7+2	1	9	9	0	0	0	**0%**	100%	100%	100%
Antimony	7+1	7+2	1	9	0	0	5	9	100%	100%	**44%**	100%
Barium	7+1	7+2	1	9	1	0	0	0	**89%**	100%	100%	100%
Beryllium	7+1	7+2	1	9	0	0	3	0	100%	100%	**67%**	100%
Cadmium	7+1	7+2	1	9	0	0	0	8	100%	100%	100%	100%
Calcium	7+1	7+2	1	9	1	0	0	0	**89%**	100%	100%	100%
Chromium	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%

Table 5.5.1-3

Environmental Sample Completeness for Total Metals in Soil Samples by SW6010B

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total Results	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
Cobalt	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%
Copper	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%
Iron	7+1	7+2	1	9	9	0	0	0	**0%**	100%	100%	100%
Lead	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%
Magnesium	7+1	7+2	1	9	2	0	0	0	**78%**	100%	100%	100%
Manganese	7+1	7+2	1	9	6	0	0	0	**33%**	100%	100%	100%
Molybdenum	7+1	7+2	1	9	0	0	3	0	100%	100%	**67%**	100%
Nickel	7+1	7+2	1	9	1	0	0	0	**89%**	100%	100%	100%
Potassium	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%
Silver	7+1	7+2	1	9	0	0	0	2	100%	100%	100%	100%
Sodium	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%
Tin	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%
Vanadium	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%
Zinc	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.5.1-4

Laboratory and Field QC Sample Completeness for Metals in Soils by SW6010B

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
66.7	NR	NR	100%	66.7%	100%	100%

NR – not required for this method

5.6 Arsenic by Method SW7060A

5.6.1 Total Arsenic in Soils by Method SW7060A. A total of 7 environmental soil samples and 2 field duplicates were collected for total arsenic analysis by Method SW7060A. The samples were transported cold to EMAX where they were digested by Method SW3050B and analyzed by graphite furnace atomic absorption (GFAA) Method SW7060A in 1 laboratory batch. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. The samples were collected in stainless steel sleeves and transported at a temperature <8°C to the laboratory where they were analyzed by Method

SW7060A. The soil samples were analyzed within the prescribed holding time of 6 months from the date of collection.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of 1 method blank per laboratory batch. Arsenic was not detected in the method blanks. No equipment blanks were required or collected in association with the soil samples.

MS/MSD Recoveries and Precision. A single MS analysis was required for each laboratory batch. This requirement was met. The spike recovery (24.2%) was below the lower control limit of 75 percent. The sample was re-digested and re-analyzed with similar results. QAPP compliance was met. The arsenic result for sample B054HA002-A-S02 (3.61 mg/kg) was rejected due to MS recovery below 30 percent.

This is the first MS recovery problem that has been observed for arsenic at the Arsenal. The value reported for arsenic in the spiked sample (3.61 mg/kg) was noticeably lower than the majority of samples seen so far at the Arsenal. (The overall average minus the extremes is about 10mg/kg $\pm$3.5 mg/kg).

The laboratory also picked that sample to perform their laboratory replicate, with good precision. Review of the data from this investigation shows that all of the results from that same site (B054) showed consistently low arsenic results (2.4-5.1 mg/kg) while the results for the rest of the sites averaged 12.7 mg/kg. It appears that the severe matrix interference was present throughout the samples at Building 54, and was localized to that site. The other three arsenic results from that site were also rejected due to low bias.

Since the spike recovery was 25% and the average concentration from this site is approximately 1/4th of that of the other sites tested so far, the results, if corrected, would be of similar concentrations to those found to date within the Arsenal.

LCS/LCSD Recoveries and Precision. An LCS for arsenic was prepared and analyzed at the appropriate frequency of one per lab batch. The laboratory batch also contained an LCSD. Both recoveries were within the project control limits for accuracy of 80-120 percent recovery. LCS/LCSD precision was within the RPD maximum limit of 35 percent for arsenic in soil by Method SW7060A.

Field Duplicate Precision. There were 2 soil field duplicate sample pairs collected for arsenic by Method SW7060A. The RPD values between the field duplicate pairs were both within the 50 percent RPD maximum limit.

The frequency requirement for field duplicate collection of 10 percent was met.

Laboratory Replicate Precision. One laboratory replicate per laboratory batch was required by the QAPP. This requirement was met. The RPD value between the laboratory duplicate pair was within the RPD maximum limit of 35.

Instrument Calibration. The laboratory did not report any calibration problems. The final CCV standard failed the 90-110 percent acceptance criteria for arsenic (112%). The only associated result was for sample B054HA002-A-S02. This result had already been rejected for extremely low MS recovery. No additional qualification was necessary.

Arsenic Quantitation. The laboratory did not report any quantitation problems and none were observed during the verification and validation processes other than the low MS recovery problem discussed earlier. The maximum PQL in the QAPP was met and was supported by a low standard at that concentration. An MDL study was performed within 12 months prior to sample analysis.

Overall Assessment and Completeness. Overall, the data met the requirements of the method and the QAPP and are usable for project decision-making, with the exception of the four results form B054 (3 normal and 1 field duplicate sample). The rejection of these arsenic results due to poor matrix spike recovery resulted in the reduction of technical and analytical completeness values below their respective goals of 95 percent and 90 percent, respectively. Arsenic is not a specific contaminant of concern for this fuels investigation, and data was being collected to further understanding about site background levels. The rejection of potential arsenic background values will have little or no effect on DQOs for this site. A summary of completeness, calculated as defined in Section 5.0, is presented in Table 5.6.1-1. A summary of laboratory and field QC sample completeness is presented in Table 5.6.1-2.

Table 5.6.1-1

Completeness for Total Arsenic in Soil Samples by SW7060A

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
Arsenic	7+1	7+2	1	9	0	4	0	0	100%	**56%**	**56%**	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.6.1-2

Laboratory and Field QC Sample Completeness for Arsenic in Soils by SW7060A

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	100%	100%	100%	100%

NR – not required for this method

5.7 Mercury in Soil by Method SW7471A

A total of 7 environmental soil samples and 2 field duplicates were collected for total mercury analysis by Method SW7471A. The samples were transported cold to EMAX where they were digested and analyzed by Method SW7471A in one laboratory batch. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. The samples were collected in stainless steel sleeves and transported at a temperature <8°C to the laboratory where they were analyzed by Method SW7471A. The soil samples were analyzed within the prescribed holding time of 28 days from the date of collection.

Laboratory Method Blanks and Field QC Blanks. A laboratory method blank was analyzed at the required frequency of one method blank per laboratory batch. Mercury was not detected in the method blank above the MDL. No equipment blanks were required or collected in association with the soil samples.

MS/MSD Recoveries and Precision. A single MS analysis was required for each laboratory batch. This requirement was met. The MS recovery was within the control limits of 75-125 percent.

LCS/LCSD Recoveries and Precision. An LCS for mercury was prepared and analyzed at the appropriate frequency of one per laboratory batch. The recovery was within the project control limits for accuracy of 80-120 percent recovery.

Field Duplicate Precision. There were 2 soil field duplicate samples collected for mercury by Method SW7471A. The RPD values between the field duplicate pairs were within the 50 percent RPD maximum limit for 1 of the 2 pairs. For sample B054HA001-A-S02, the field duplicate RPD exceeded the 50 percent limit, as shown in Table 5.7-1. Soil field duplicates were not homogenized prior to submittal. They were collected in separate sleeves from adjacent but discreet depth intervals. Therefore, sample heterogeneity is reflected in the analytical results for these samples. This nonconformance is discussed further in Sections 2.2 and 6.0. The frequency requirement for field duplicate collection of 10 percent was met.

Table 5.7-1
SW7471A Soil Field Duplicate Pairs above the RPD Limit

Normal sample ID	Field duplicate ID	Analyte	Normal result (mg/kg)	Duplicate result (mg/kg)	RPD
B054HA001-A-S02	B054HA001-B-S02	Mercury	0.097	<0.017	200%

Laboratory Replicate Precision. One laboratory replicate per laboratory batch was required by the QAPP. This requirement was met. The RPD value between the laboratory duplicate pair was within the RPD maximum limit of 35.

Instrument Calibration. The laboratory did not report any calibration problems and none were observed during the validation and verification processes.

Mercury Quantitation. The laboratory did not report any quantitation problems and none were observed during the validation and verification processes. The laboratory reported PQLs met the QAPP specified maximum PQL and were supported by a low standard analyzed at or below that concentration. An MDL study was performed within 12 months prior to sample analysis.

Overall Assessment and Completeness. Overall, the data met the requirements of the method and the QAPP and are usable for project decision-making. All completeness goals

were met. A summary of completeness, calculated as defined in Section 5.0, is presented in Table 5.7-2. A summary of laboratory and field QC sample completeness is presented in Table 5.7-3.

Table 5.7-2

Completeness for Mercury in Soil Samples by SW7471A

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
Mercury	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.7-3

Laboratory and Field QC Sample Completeness for Mercury in Soils by SW7471A

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	100%	100%	100%	100%

NR – not required for this method

5.8 Selenium by Method SW7740

5.8.1 Total Selenium in Soils by Method SW7740. A total of 7 environmental soil samples and 2 field duplicates were collected for total selenium analysis by Method SW7740. The samples were transported cold to EMAX where they were digested by Method SW3050B and analyzed by GFAA Method SW7740 in one laboratory batch. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. The samples were collected in stainless steel sleeves and transported at a temperature <8°C to the laboratory where they were analyzed by Method SW7841. The soil samples were analyzed within the prescribed holding time of 6 months from the date of collection.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of one method blank per laboratory batch. Selenium was not detected in the method blank above the MDL. No equipment blanks were collected in association with the soil samples.

MS/MSD Recoveries and Precision. A single MS analysis was required for each laboratory batch. This requirement was met. The MS recovery was within the control limits of 75-125 percent.

LCS/LCSD Recoveries and Precision. An LCS for selenium was prepared and analyzed at the appropriate frequency of 1 per laboratory batch. In addition an LCSD was performed.

Both recoveries were within the project control limits for accuracy of 80-120 percent recovery. The RPD value between the LCS/LCSD pair was within the RPD maximum limit of 35.

Field Duplicate Precision. There were 2 soil field duplicate samples collected for selenium by Method SW7740. The RPD values between the field duplicate pairs were within the 50 percent RPD maximum limit for 1 of the 2 pairs.

For sample B152HA001-A-S02 the field duplicate RPD exceeded the 50 percent limit, as shown in Table 5.8.1-1. Soil field duplicates were not homogenized prior to submittal. They were collected in separate sleeves from adjacent but discreet depth intervals. Therefore, sample heterogeneity is reflected in the analytical results for these samples. This nonconformance is discussed further in Sections 2.2 and 6.0. The frequency requirement for field duplicate collection of 10 percent was met.

Table 5.8.1-1

SW7740 Soil Field Duplicate Pairs above the RPD Limit

Normal sample ID	Field duplicate ID	Analyte	Normal result (mg/kg)	Duplicate result (mg/kg)	RPD
B152HA001-A-S02	B152HA001-B-S02	Selenium	3.25	1.36	81.7%

Laboratory Replicate Precision. One laboratory replicate per laboratory batch was required by the QAPP. This requirement was met.

The RPD value between the laboratory duplicate pair was within the RPD maximum limit of 35.

Instrument Calibration. The laboratory did not report any calibration problems and none were observed during the validation and verification processes.

Selenium Quantitation. The laboratory did not report any quantitation problems and none were observed during the validation and verification processes. The laboratory reported PQLs met the QAPP specified maximum PQL and were supported by a low standard analyzed at or below that concentration. An MDL study was performed within 12 months prior to sample analysis.

Overall Assessment and Completeness. Overall, the data met the requirements of the method and the QAPP and are usable for project decision-making. All completeness goals were met. A summary of completeness, calculated as defined in Section 5.0, is presented in Table 5.8.1-2. A summary of laboratory and field QC sample completeness is presented in Table 5.8.1-3.

Table 5.8.1-2

Completeness for Total Selenium in Soil Samples by SW7740

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
Mercury	7+1	7+2	1	9	0	0	0	5	100%	100%	100%	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.8.1-3

Laboratory and Field QC Sample Completeness for Selenium in Soils by SW7740

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	100%	100%	100%	100%

NR – not required for this method

5.9 Thallium by Method SW7841

5.9.1 Total Thallium in Soils by Method SW7841. A total of 7 environmental soil samples and 2 field duplicates were collected for total thallium analysis by Method SW7841. The samples were transported cold to EMAX where they were digested by Method SW3050B and analyzed by GFAA Method SW7841 in 1 laboratory batch. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. The samples were collected in stainless steel sleeves and transported at a temperature <8°C to the laboratory where they were analyzed by Method SW7841. The soil samples were analyzed within the prescribed holding time of 6 months from the date of collection.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of 1 method blank per laboratory batch. Thallium was not detected in the method blank above the MDL. No equipment blanks were required or collected in association with the soil samples.

MS/MSD Recoveries and Precision. A single MS analysis was required for each laboratory batch. This requirement was met. The MS recovery was within the control limits of 75-125 percent.

LCS/LCSD Recoveries and Precision. An LCS for thallium was prepared and analyzed at the appropriate frequency of 1 per laboratory batch. In addition an LCSD was performed.

Both recoveries were within the project control limits for accuracy of 80-120 percent recovery. The RPD value between the LCS/LCSD pair was within the RPD maximum limit of 35.

Field Duplicate Precision. There were 2 soil field duplicate samples collected for thallium by Method SW7841. The RPD values between the field duplicate pairs were both within the 50 percent RPD maximum.

The frequency requirement for field duplicate collection of 10 percent was met.

Laboratory Replicate Precision. One laboratory replicate per laboratory batch was required by the QAPP. This requirement was met.

The RPD value between the laboratory duplicate pair was within the RPD maximum limit of 35.

Instrument Calibration. The laboratory did not report any calibration problems and none were observed during the validation and verification processes.

Thallium Quantitation. The laboratory did not report any quantitation problems and none were observed during the validation and verification processes. The laboratory reported PQLs met the QAPP specified maximum PQL and were supported by a low standard analyzed at or below that concentration. An MDL study was performed within 12 months prior to sample analysis.

Overall Assessment and Completeness. Overall, the data met the requirements of the method and the QAPP and are usable for project decision-making. All completeness goals were met. A summary of completeness, calculated as defined in Section 5.0, is presented in Table 5.9.1-1. A summary of laboratory and field QC sample completeness is presented in Table 5.9.1-2.

Table 5.9.1-1

Completeness for Total Thallium in Soil Samples by SW7841

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
Thallium	7+1	7+2	1	9	0	0	0	0	100%	100%	100%	100%

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.9.1-2

Laboratory and Field QC Sample Completeness for Thallium in Soils by SW7841

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	100%	100%	100%	100%

NR – not required for this method

5.10 TDS by Method E160.1

Three water samples were collected for TDS by Method E160.1. The samples were collected in 500 mL plastic bottles and transported cold to EMAX where they were analyzed in 1 laboratory batch. For a tabulated count of the samples and the associated batch QC samples, see Appendix D.

Preservation and Holding Times. The samples were collected in the proper containers, preserved correctly at <8°C, and analyzed within the method prescribed holding time of 7 days from date of collection.

Laboratory Method Blanks and Field QC Blanks. Laboratory method blanks were analyzed at the required frequency of one method blank per laboratory batch. TDS was not detected in the method blank above the MDL.

LCS/LCSD Recoveries and Precision. An LCS/LCSD pair for TDS was prepared and analyzed at the appropriate frequency of 1 pair per laboratory batch.

The recoveries were within the laboratory control limits of 85-115 percent for accuracy. The RPD values between the LCS/LCSD pairs were within the 20 percent RPD maximum limit.

Laboratory Replicate Precision. One laboratory replicate per laboratory batch was required by the QAPP. This requirement was met.

The RPD value between the laboratory duplicate pair was within the RPD maximum limit of 35.

Field Duplicate Precision. There were no field duplicate samples collected for TDS by Method E160.1. Compliance with the criteria for field duplicate precision defined in the Table E-1 of the QAPP could not be evaluated. The frequency requirement for field duplicate collection of 10 percent was not met. Collection of a field duplicate was inadvertently omitted when water was not encountered at the location identified for field duplicate collection in the sampling plan. Failing to collect the field duplicate impacts the quantitative assessment of completeness, which is reflected in the sampling completeness of 75 percent.

Instrument Calibration. The laboratory did not report any problems with balance calibration and none were observed during the laboratory audit.

TDS Quantitation. The laboratory did not report any quantitation problems, and none were observed during the verification process. An MDL study was performed within 12 months prior to sample analysis. No PQL has been established for TDS.

Overall Assessment and Completeness. Overall, the data met the requirements of the method and the QAPP and are usable for project decision-making. The sampling/field duplicate completeness goals were not met because of the lack of a field duplicate when water was not encountered at the planned duplicate sampling location. This presented a lack of good precision information, but the objectives for collecting primary sample data were met. All other completeness goals were met. A summary of completeness, calculated as defined in Section 5.0, is presented in Table 5.10-1. A summary of laboratory and field QC sample completeness is presented in Table 5.10-2.

Table 5.10-1

Completeness for TDS in Water Samples by E160.1

				Number of results					Completeness			
Analyte	Samples planned (N+FD)	Samples taken (N+FD)	Analytes per sample	Total	Non-contract compliant	Rejected	Estimated due to QC deficiencies	Estimated due to >MDL but <PQL	QAPP compliance	Technical	Analytical*	Sampling
TDS	3+1	3+0	1	3	0	0	0	0	100%	100%	100%	**75%**

* Note: Estimations due to results <PQL do not affect the calculated completeness
Calculations do not include any required field or laboratory QC samples, except field duplicates.
N = normal environmental samples FD = field duplicate samples

Table 5.10-2

Laboratory and Field QC Sample Completeness for TDS in Waters by E160.1

Method blank compliance	Trip blank compliance	Equipment blank compliance	MS/MSD compliance	LCS/LCSD compliance	Field duplicate compliance	Laboratory replicate compliance
100%	NR	NR	NR	100%	**0.0%**	100%

NR – not required for this method

APPENDIX B
READINESS REVIEW CHECKLISTS

Table I6-11
Readiness Review Checklist Fuel Only Facilities

23 JUNE 00 - UPDATE

RR MTG: UPDATE 6/23/00

Date: 25 JAN 00

Activity: Site Investigation - GEOPHYSICS ONLY

Location: Buildings 15, 45, 54, 118(A), 152 and 178

FSIP/SSHP Title: Field Site Investigation Plan – Fuel Only Facilities

1. Does BC have Notice to Proceed on this task from USACE?

(Yes) NA Will Be When:_____

2. Have appropriate USACE personnel been notified of the Schedule of Activities?

(Yes) NA Will Be When:_____

3. Is the FSIP Approved and Final?

(Yes) NA Will Be When:_____

4. List the appropriate parcels requiring Rights of Entry and have they been signed?

Parcel Number: *080-140-440* Location: *Building 15 and 178*

Yes NA Will Be When:_____

Parcel Number: *080-150-130* Location: *Building 45*

Yes NA Will Be When:_____

Parcel Number: *080-130-020* Location: *Building 54*

Yes NA Will Be When:_____

Parcel Number: *080-1140-450* Location: *Building 118(A)*

Yes NA Will Be When:_____

Parcel Number: *080-140-170* Location: *Building 152*

Yes NA Will Be When:_____

Are Rights of Entry on file in field office?

Yes NA (Will Be) When: 6/26/00

5. Has the property owner been notified in writing of scope and schedule of activities?

(Yes) NA Will Be When:_____

Table I6-11 (Continued)
Readiness Review Checklist Fuel Only Facilities

Is the analytical laboratory ready to receive samples?

Yes NA Will Be When:_____

Are all appropriate sample containers on-site?

Yes NA Will Be When:_____

11. Trip blanks on site from _____*EMAX*_____(analytical laboratory name)?

Yes NA Will Be When:_____

12. Is the courier set-up to pick up samples (if applicable)?

Yes NA Will Be When:_____

13. Field Office

Is field office equipment (e.g., refrigerator, phone) working properly?

Yes NA Will Be When:_____

Are field supplies (e.g., coolers, vermiculite, shipping labels, bubble wrap) on-site?

Yes NA Will Be When:_____

Are decon chemicals on-site with MSDS sheets on-file in field office?

Yes NA Will Be When:_____

Are sample labels prepared?

Yes NA Will Be When:_____

14. Documentation

Are field notebooks prepared?

Yes NA Will Be When:_____

Are sample documentation forms prepared and on site?

Yes NA Will Be When:_____

Is database ready to receive sample information?

Yes NA Will Be When:_____

Table I6-11 (Continued)
Readiness Review Checklist Fuel Only Facilities

Contact Name: _____

Business Name: _____

Location: Building 45

Has the above tenant been notified when and where work will be conducted?

(Yes) NA Will Be When: _____

List any special ROE requirements.

_____

Contact Name: _____

Business Name: Exxon Company USA (SOIL SAMPLING ONLY)

Location: Building 54

Has the above tenant been notified when and where work will be conducted?

Yes (NA) Will Be When: _____

List any special ROE requirements.

_____

Contact Name: SIMON PETERSON 707-745-2354

Business Name: *Benicia Industries*

Location: *Building 118(A)*

Has the above tenant been notified when and where work will be conducted?

(Yes) NA Will Be When: _____

List any special ROE requirements.

_____

Contact Name: *J. Stephen Schneider (707) 745-0404*

Business Name: *JR Schneider (Building 91)*

Location: *Building 152*

Has the above tenant been notified when and where work will be conducted?

(Yes) NA Will Be When: _____

Table I6-11 (Continued)
Readiness Review Checklist Fuel Only Facilities

pH/EC/temperature meter(s)

pH calibration fluids in date? EC calibration fluids in date?

Meter(s) calibrated? Calibration log on-site?

NONE

Other equipment (list)

Equipment: *Encore sampling equipment and containers*

Equipment: *Health and safety personal air monitors and draeger tubes*

Equipment: *Water level indicator*

Equipment: *Filters*

Equipment:

Equipment:

22. List any specialty equipment necessary for this project. Is equipment on-site and in working condition?

Equipment: *Geophysical survey instruments to be provided by Norcal*

Yes NA (Will Be) When: ~~1/3/00~~ 6/26/00

Equipment: *Backhoe and digging equipment to be provided by Nielson Construction*

Yes (NA) (Will Be) When: UPON START OF TRENCHING

23. Is PPE on-site and inspected?

(Yes) NA Will Be When:

24. Has project readiness meeting been held?

Yes NA (Will Be) When: 1/27/99

Attendees:

Printed Name	Signature	Date
DAVE ZUGER		
WENDY LINCK		6/27/00

Table I6-11
Readiness Review Checklist Fuel Only Facilities
(updated for Building 25 through 28)

Date: 8 September 2000

Activity: Site Investigation

Location: Buildings 15, 25, 26, 27, 28, 45, 54, 118(A), 152 and 178

FSIP/SSHP Title: Field Site Investigation Plan – Fuel Only Facilities

1. Does BC have Notice to Proceed on this task from USACE?

   ☒ Yes ☐ NA ☐ Will Be When:_____

2. Have appropriate USACE personnel been notified of the Schedule of Activities?

   ☒ Yes ☐ NA ☐ Will Be When:_____

3. Is the FSIP Approved and Final?

   ☒ Yes ☐ NA ☐ Will Be When:_____

4. Is the FSIP Addendum Approved and Final?

   ☐ Yes ☐ NA ☒ Will Be When: 18 Sept 2000

   Will - Sent comments 11 Sep 00 to USACE.

5. List the appropriate parcels requiring Rights of Entry and have they been signed?

   Parcel Number: *080-140-440* Location: *Building 15 and 178*

   ☒ Yes ☐ NA ☐ Will Be When:_____

   Parcel Number: *0080-150-030* Location: *Building 25/26*

   ☒ Yes ☐ NA ☐ Will Be When:_____

   Parcel Number: *080-150-200* Location: *Building 27*

   ☐ Yes ☐ NA ☐ Will Be When:_____

   Bldg. 27 - NOT ACCESSING AT THIS TIME DUE TO DENIAL OF ROE BY OWNER

   Parcel Number: *080-140-090* Location: *Building 28*

   ☒ Yes ☐ NA ☐ Will Be When:_____

   Parcel Number: *080-150-130* Location: *Building 45*

   ☒ Yes ☐ NA ☐ Will Be When:_____

   Bldg. 45 - NOT ACCESSING AT THIS TIME DUE TO RENOVATIONS BY OWNER

Table I6-11 (Continued)
Readiness Review Checklist Fuel Only Facilities

Are all appropriate sample containers on site?

☐ Yes ☐ NA ☒ Will Be When: 18 Sept 2000

9. Laboratory (mobile) *Not Applicable*

10. Laboratory (QA) (request sent/received by Julia Halsne on 25 August 2000)

APPL FRESNO

Has QA lab been selected? Name:_____

☐ Yes ☐ NA ☐ Will Be When:_____

Is the QA laboratory ready to receive samples?

☐ Yes ☐ NA ☐ Will Be When:_____

11. Laboratory (specialized samples) **N/A**

Is _____ under contract?

☐ Yes ☐ NA ☐ Will Be When:_____

Is the analytical laboratory ready to receive samples?

☐ Yes ☐ NA ☐ Will Be When:_____

Are all appropriate sample containers on-site?

☐ Yes ☐ NA ☐ Will Be When:_____

12. Trip blanks on site from *EMAX* (analytical laboratory name)?

☐ Yes ☐ NA ☒ Will Be When: 18 Sept 2000

13. Is the courier set-up to pick up samples (if applicable)?

☐ Yes ☐ NA ☒ Will Be When: 18 Sept 2000

14. Field Office

Is field office equipment (e.g., refrigerator, phone) working properly?

☒ Yes ☐ NA ☐ Will Be When:_____

Are field supplies (e.g., coolers, vermiculite, shipping labels, bubble wrap) on-site?

☒ Yes ☐ NA ☐ Will Be When:_____

Table I6-11 (Continued)
Readiness Review Checklist Fuel Only Facilities

Is medical surveillance documentation for FA/BC personnel and subcontractors on file in field office?

☒ Yes ☐ NA ☐ Will Be When:_____

Who are the competent persons in charge *Dean Wall*

17. List the tenants that will be impacted from the fieldwork.

Contact Name: _____

Business Name: *Benicia International Association*

Location: *Building 15 and 178*

Has the above tenant been notified when and where work will be conducted?

☐ Yes ☐ NA ☒ Will Be When: 11 Sept 2000

List any special ROE requirements.

_____

Contact Name: *Stephen David* *707-746-5848*

Business Name: _____

Location: *Building 25/26*

Has the above tenant been notified when and where work will be conducted?

☒ Yes ☐ NA ☐ Will Be When:_____

List any special ROE requirements.

_____

Contact Name: *Stephen Robbins* *707-746-0684*

Business Name: _____

Location: *Building 27*

Has the above tenant been notified when and where work will be conducted?

☐ Yes ☒ NA ☐ Will Be When:_____

Table I6-11 (Continued)
Readiness Review Checklist Fuel Only Facilities

Contact Name: *J. Stephen Schneider (707) 745-0404*

Business Name: *JR Schneider (Building 91)*

Location: *Building 152*

Has the above tenant been notified when and where work will be conducted?

☒ Yes ☐ NA ☐ Will Be When: _____

List any special ROE requirements.

_____

Has the investigation area been cleared for UXO?

☐ Yes ☒ NA ☐ Will Be When: _____

Have invasive locations been cleared for underground utilities?

☐ Yes ☐ NA ☒ Will Be When: 18 Sept 2000

18. Has FA/BC marked the sample locations?

☐ Yes ☐ NA ☒ Will Be When: 13 Sept 2000

19. Has USA been contacted with regard to underground utilities?

☐ Yes ☐ NA ☒ Will Be When: 13 Sept 2000

Date: _____

Ticket number(s): _____

Date Expires: _____

19. Has site walk for public utilities been scheduled?

☐ Yes ☒ NA ☐ Will Be When: _____

Conducted?

☐ Yes ☒ NA ☐ Will Be When: _____

20. Have utilities been marked by all providers?

☐ Yes ☐ NA ☒ Will Be When: 18 Sept 2000

If not, who? _____

Table I6-11 (Continued)
Readiness Review Checklist Fuel Only Facilities

Attendees:

Printed Name	Signature	Date
Dave Zuber FA/BC		9/11/00
Wendy Linck FA/BC		9/11/00
Linda Nuss FA/BC	DID NOT ATTEND	—
Brad Ziegler FA/BC		9.12.00
John Esparza, USACE	DID NOT ATTEND	—
Julia Halsne, LDC	BY PHONE	9/11/00

APPENDIX C

FIELD AUDITS

file #14

Bates, Jackie

From: Zuber, David
Sent: Friday, September 29, 2000 9:35 AM
To: Bates, Jackie
Subject: FW: Field Visit, Benicia Arsenal

trip_report_00266.doc

please file the attachment

-----Original Message-----
From: DeLaO, Patti
Sent: Wednesday, September 27, 2000 10:17 AM
To: Zuber, David; Linck, Wendy; Ziegler, Brad; Lucas, Jay; Nuss, Linda; Lopez, Paul
Subject: FW: Field Visit, Benicia Arsenal

Excellent job! Thanks very much. Keep up the good work

-----Original Message-----
From: Handel, Bruce SPK [mailto:BHandel@spk.usace.army.mil]
Sent: Monday, September 25, 2000 5:06 PM
To: DeLaO, Patti
Cc: Esparza, John SPK; Handel, Bruce SPK
Subject: FW: Field Visit, Benicia Arsenal

Patti,

I am forwarding a memo from Brad on his observations from his field visit.
Very good field implementation, please pass on to your field team!

Bruce Handel
Project Manager
HTRW Branch
916.557.7906

> -----Original Message-----
> From: Call, Bradley A SPK
> Sent: Friday, September 22, 2000 12:16 PM
> To: Esparza, John SPK
> Cc: Handel, Bruce SPK; Henderson, Roger C SPK; Julia Halsne (E-mail)
> Subject: Field Visit, Benicia Arsenal
>
> John,
> Please find attached a memoranda summarizing my observations from
> yesterday's field visit. Overall the FA/BC team was performing very well.
> They appear to have addressed many of the issues raised by Julia during
> her audit in September 1999. We can discuss my observations in more
> detail during our next team meeting.
> Thanks,
> Brad
>
> Bradley A. Call, P.E.
> Environmental Engineer
> Environmental Engineering Section

Phone: 916.557.6649
Fax: 916.557.5307

CESPK-ED-EF 22 September 2000

MEMORANDUM FOR; Technical Team Leader, Benicia Arsenal (J. Esparza)

SUBJECT: Trip Report, Fuel Only Facilities Field Investigation.

1. References:

a. *Field Site Investigation Plan, Fuel Only Facilities (Area I Fuel Storage Facilities at Buildings 15, 25, 26, 27, 28, 46(b), 54, 118(a), 152 and 178), Former Benicia Arsenal, Benicia, California*, by Forsgren Associates/Brown and Caldwell, dated February 2000.

b. Draft Addendum Letter Field Site Investigation Plan, Fuel Only Facilities, Former Benicia Arsenal, Benicia, California, by Forsgren Associates/Brown and Caldwell, dated September 8, 2000.

c. *Investigation Workplan for the Benicia Arsenal*, by Brown and Caldwell, dated February 1999.

2. As per your request I conducted a field visit on September 21. I arrived at the site at 0930 and met with the Forsgren Associates/Brown and Caldwell field team. The team was finishing up their work at Building 152 and included Wendy Linck, Paul Lopez and Brad Ziegler. It was an overcast day with temperatures in the mid 70's to the mid 80's and with a strong delta breeze.

3. Ms. Linck is the Field Team Leader and she provided me with an overview of the week's activities. I was given a health and safety briefing by Mr. Ziegler after which I signed the daily "sign-in sheet." I noted that a clear map to the hospital was available on the dashboard of the field truck and emergency phone numbers were also readily available. The crew appeared well organized and prepared. All equipment in the field truck was carefully arranged with no items present that might contaminate environmental samples or equipment.

4. I was next given a brief site tour by Ms. Linck. We began at Building 15 and I was shown the capped 4-inch line that may have conveyed fuel to the former locomotive repair shop. It has not been possible to geophysically trace the line and potholing is not practical due to the close proximity of a steep slope. I suggested that they consider removing the cap and probing for the pipe depth and direction with a fish tape or similar. The potholing was complete at Building 118 and no USTs were found. Concrete replacement was scheduled to occur at Buildings 118 and 152. The next stop on the tour was Building 25/26. Yesterday's potholing had exposed a single 550-gallon UST next to the street at this site. The owner, Steven David was very accommodating in allowing access to the site. Such access had not yet been granted at the next site, Building 27, which has resulted in a delay to the planned explorations. Renovation work at Building

45 has also delayed planned activities. Potholing at Building 28 has exposed several fuel lines connected to the furnace. At the time that I was there it was still thought likely that an above ground storage tank (AST) was used, but notification was received after my return that a UST has been located.

5. We then moved to Building 54 to observe investigation activities. Planned tasks included collection of two soil samples (surface and 5 feet) and a single groundwater sample from one boring at this former AST site. There was no visual evidence of fuel spillage near the concrete AST cradle. The field crew used a hand auger to advance the boring. The soil was very dense and compacted which resulted (when combined with the lack of evidence of spillage) in a field decision to collect two near surface samples. The northern most boring was advanced (with great effort over a period of 2 hours) to a depth of approximately 7 feet in an attempt to obtain a groundwater sample. Water in the nearby Suisun Bay was noted to lie approximately 5 feet below the ground surface. Despite this no groundwater (only lenses of moist soil) was encountered. Soil cuttings were periodically placed into a plastic bag and screened with a PID. No PID detections were observed. Soil sampling was accomplished using Encore samplers and a slide hammer with a 6-inch metal sleeve. The Encore samplers come pre-packed and require no decontamination. The metal sleeves had been decontaminated prior to arrival at the site and the aluminum foil wrapping was not removed until the sleeve was placed in the hammer. Notes were kept in a bound notebook and much use was made of pre-printed sampling labels. The boring was properly logged for future reference. Samples were promptly labeled, sealed in plastic bags and placed in to a cooler with plenty of bagged water ice. Chain of custody forms were promptly filled out and the overall control and flow of their work was excellent. The hand auger, slide hammer and other related equipment was decontaminated by washing and two separate rinses. Soil cuttings were returned to the boring and the site was left as it was found. The team took lunch at this point in their work.

6. I next accompanied the team as they moved to Building 178, the former AST location on the bluff overlooking Building 15. No road or path is available to this site, which may prohibit future consideration of vehicle mounted drilling equipment. There is no visual evidence of the former location of the tanks. In addition, the residential development adjoining the former ASTs may have involved some degree of regrading. Mary Parker, of Parker Design, joined the team at this point to take pictures of field activities. Planned tasks at this site included the collection of soil samples (depths of 0 and 5 feet) from three borings. The three borings were field located based on the most recent geophysical work, conjecture as to the possible tank/piping alignments and professional judgment. No problems were noted with the sampling procedures, however I had one Encore sampler related observation that the entire project team may wish to consider. The Encore sampler must be pressed firmly into the soil to "load" it and this is only possible in native soil for near surface borings or in potholes. For deeper borings the Encore sampler is driven into the open ends of a metal sleeve that has been collected with a slide hammer or drill rig split-spoon sampler (or similar). My question to the team is if the Encore sampler would be expected to produce more representative results under these conditions.

Is the extra expense justified? It would be interesting to conduct a side-by-side comparison to evaluate this question.

7. I departed the site at 1500 after having briefed the field team on my findings. These included the fact that I observed them to be carefully following the work plans, they used good judgment when departures from the plan were needed, they worked safely, and they were well organized mindful of proper sample collection/storage procedures.

8. Please do not hesitate to ask if you have any questions. I can be reached at 916.557.6649.

Bradley A. Call, P.E.
Environmental Engineer
Environmental Engineering Section

cc: R. Henderson
B. Handel
J. Halsne

APPENDIX F

SUMMARY OF FIELD DUPLICATE RESULTS

Appendix F

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S01	09/21/00	SW8015B	GRO	MG/KG	0.202	1.01	**1.3**	< 0.91	0.0
B054HA001-A-S01	09/21/00	SW8260B	ACE	MG/KG	0.0024	0.02	**0.091**	**0.2**	74.9
B054HA001-A-S01	09/21/00	SW8260B	BDCME	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	BRBZ	MG/KG	0.0005	0.0051	< 0.0005	< 0.0006	0.0
B054HA001-A-S01	09/21/00	SW8260B	BRCLME	MG/KG	0.0004	0.0051	< 0.0004	< 0.0005	0.0
B054HA001-A-S01	09/21/00	SW8260B	BRME	MG/KG	0.0004	0.01	< 0.0004	< 0.0005	0.0
B054HA001-A-S01	09/21/00	SW8260B	BTBZN	MG/KG	0.0009	0.0051	< 0.0009	< 0.0011	0.0
B054HA001-A-S01	09/21/00	SW8260B	BTBZS	MG/KG	0.0004	0.0051	< 0.0004	< 0.0004	0.0
B054HA001-A-S01	09/21/00	SW8260B	BTBZT	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	BZ	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	BZME	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	CDS	MG/KG	0.0001	0.0051	< 0.0001	**0.0037**	0.0
B054HA001-A-S01	09/21/00	SW8260B	CLBZ	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	CLBZME2	MG/KG	0.0004	0.0051	< 0.0004	< 0.0004	0.0
B054HA001-A-S01	09/21/00	SW8260B	CLBZME4	MG/KG	0.0002	0.0051	< 0.0002	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	CLEA	MG/KG	0.0006	0.01	< 0.0006	< 0.0007	0.0
B054HA001-A-S01	09/21/00	SW8260B	CLME	MG/KG	0.0006	0.01	< 0.0006	< 0.0007	0.0
B054HA001-A-S01	09/21/00	SW8260B	CTCL	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S01	09/21/00	SW8260B	CYMP	MG/KG	0.0006	0.0051	< 0.0006	< 0.0007	0.0
B054HA001-A-S01	09/21/00	SW8260B	DBCME	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	DBCP	MG/KG	0.0008	0.01	< 0.0008	< 0.0009	0.0
B054HA001-A-S01	09/21/00	SW8260B	DBMA	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCA11	MG/KG	0.0001	0.0051	< 0.0001	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCA12	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCBZ12	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCBZ13	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCBZ14	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCE11	MG/KG	0.0003	0.0051	< 0.0003	< 0.0004	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCE12C	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCE12T	MG/KG	0.0003	0.0051	< 0.0003	< 0.0004	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCP11	MG/KG	0.0005	0.01	< 0.0005	< 0.0006	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCP13C	MG/KG	0.0002	0.0051	< 0.0002	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCP13T	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCPA12	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCPA13	MG/KG	0.0002	0.0051	< 0.0002	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	DCPA22	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S01	09/21/00	SW8260B	EBZ	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	EDB	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	EMETHACRY	MG/KG	0.0004	0.0051	< 0.0004	< 0.0005	0.0
B054HA001-A-S01	09/21/00	SW8260B	ETBE	MG/KG	0.0014	0.0051	< 0.0014	< 0.0016	0.0
B054HA001-A-S01	09/21/00	SW8260B	FC11	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	FC12	MG/KG	0.0002	0.01	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	HCBU	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	HXO2	MG/KG	0.0011	0.02	< 0.0011	< 0.0013	0.0
B054HA001-A-S01	09/21/00	SW8260B	IME	MG/KG	0.0002	0.0051	< 0.0002	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	IPBZ	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	ISOPRE	MG/KG	0.001	0.0051	< 0.001	< 0.0012	0.0
B054HA001-A-S01	09/21/00	SW8260B	MEK	MG/KG	0.0017	0.02	**0.021**	**0.039**	60.0
B054HA001-A-S01	09/21/00	SW8260B	MIBK	MG/KG	0.001	0.02	< 0.001	< 0.0011	0.0
B054HA001-A-S01	09/21/00	SW8260B	MTLNCL	MG/KG	0.0022	0.0254	< 0.0022	< 0.0011	0.0
B054HA001-A-S01	09/21/00	SW8260B	NAPH	MG/KG	0.0013	0.01	< 0.0013	< 0.0015	0.0
B054HA001-A-S01	09/21/00	SW8260B	PBZN	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	PCA	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	PCE	MG/KG	0.0002	0.0051	< 0.0002	< 0.0003	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S01	09/21/00	SW8260B	STY	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	TAME	MG/KG	0.001	0.0051	< 0.001	< 0.0011	0.0
B054HA001-A-S01	09/21/00	SW8260B	TBME	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	TBUTMEE	MG/KG	0.0008	0.0051	< 0.0008	< 0.0009	0.0
B054HA001-A-S01	09/21/00	SW8260B	TC1112	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	TCA111	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	TCA112	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	TCB123	MG/KG	0.0009	0.0051	< 0.0009	< 0.001	0.0
B054HA001-A-S01	09/21/00	SW8260B	TCB124	MG/KG	0.0009	0.0051	< 0.0009	< 0.001	0.0
B054HA001-A-S01	09/21/00	SW8260B	TCE	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0
B054HA001-A-S01	09/21/00	SW8260B	TCLME	MG/KG	0.0004	0.0051	< 0.0004	< 0.0004	0.0
B054HA001-A-S01	09/21/00	SW8260B	TCPR123	MG/KG	0.0005	0.0051	< 0.0005	< 0.0005	0.0
B054HA001-A-S01	09/21/00	SW8260B	TMB124	MG/KG	0.0005	0.0051	< 0.0005	< 0.0006	0.0
B054HA001-A-S01	09/21/00	SW8260B	TMB135	MG/KG	0.0003	0.0051	< 0.0003	< 0.0003	0.0
B054HA001-A-S01	09/21/00	SW8260B	VA	MG/KG	0.0006	0.0051	< 0.0006	< 0.0007	0.0
B054HA001-A-S01	09/21/00	SW8260B	VC	MG/KG	0.0003	0.0051	< 0.0003	< 0.0004	0.0
B054HA001-A-S01	09/21/00	SW8260B	XYLMP	MG/KG	0.0004	0.01	< 0.0004	< 0.0004	0.0
B054HA001-A-S01	09/21/00	SW8260B	XYLO	MG/KG	0.0002	0.0051	< 0.0002	< 0.0002	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S02	09/21/00	SW6010B	AG	MG/KG	0.368	3.52	< 0.368	**0.382**	0.0
B054HA001-A-S02	09/21/00	SW6010B	AL	MG/KG	48.5	353.	**6350**	**5680**	11.1
B054HA001-A-S02	09/21/00	SW6010B	BA	MG/KG	0.0311	0.352	**43.8**	**23**	62.3
B054HA001-A-S02	09/21/00	SW6010B	BE	MG/KG	0.336	0.365	< 0.336	< 0.26	0.0
B054HA001-A-S02	09/21/00	SW6010B	CA	MG/KG	3.84	35.2	**1960**	**1160**	51.3
B054HA001-A-S02	09/21/00	SW6010B	CD	MG/KG	0.0783	0.881	**0.23**	**0.141**	48.0
B054HA001-A-S02	09/21/00	SW6010B	CO	MG/KG	0.279	1.76	**6.35**	**3.9**	47.8
B054HA001-A-S02	09/21/00	SW6010B	CR	MG/KG	0.342	1.76	**13.9**	**12.7**	9.0
B054HA001-A-S02	09/21/00	SW6010B	CU	MG/KG	0.594	2.65	**8.72**	**5.53**	44.8
B054HA001-A-S02	09/21/00	SW6010B	FE	MG/KG	34.7	265.	**12200**	**9260**	27.4
B054HA001-A-S02	09/21/00	SW6010B	K	MG/KG	94.3	441.	**1040**	**658**	45.0
B054HA001-A-S02	09/21/00	SW6010B	MG	MG/KG	3.71	35.2	**2800**	**2210**	23.6
B054HA001-A-S02	09/21/00	SW6010B	MN	MG/KG	0.0525	0.441	**105**	**62.5**	50.7
B054HA001-A-S02	09/21/00	SW6010B	MO	MG/KG	0.737	5.29	< 0.737	< 0.729	0.0
B054HA001-A-S02	09/21/00	SW6010B	NA	MG/KG	17.1	88.1	**98.4**	**135**	31.4
B054HA001-A-S02	09/21/00	SW6010B	NI	MG/KG	0.715	7.06	**16.1**	**11.2**	35.9
B054HA001-A-S02	09/21/00	SW6010B	PB	MG/KG	0.15	0.881	**7.17**	**3.7**	63.8
B054HA001-A-S02	09/21/00	SW6010B	SB	MG/KG	3.04	8.78	< 3.04	< 3.01	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S02	09/21/00	SW6010B	SN	MG/KG	1.75	8.81	**1.77**	**4.73**	91.1
B054HA001-A-S02	09/21/00	SW6010B	V	MG/KG	0.319	1.77	**23**	**18.8**	20.1
B054HA001-A-S02	09/21/00	SW6010B	ZN	MG/KG	0.32	1.77	**34.5**	**26.5**	26.2
B054HA001-A-S02	09/21/00	SW7060A	AS	MG/KG	0.587	1.76	**3.61**	**2.41**	39.9
B054HA001-A-S02	09/21/00	SW7471A	HG	MG/KG	0.0169	0.0878	**0.097**	< 0.0168	0.0
B054HA001-A-S02	09/21/00	SW7740	SE	MG/KG	0.108	0.44	< 0.108	**0.126**	0.0
B054HA001-A-S02	09/21/00	SW7841	TL	MG/KG	0.0677	0.265	**0.366**	**0.266**	31.6
B054HA001-A-S02	09/21/00	SW8015B	DRO	MG/KG	1.7	4.4	**32**	**27**	16.9
B054HA001-A-S02	09/21/00	SW8015B	RRO	MG/KG	11.	44.	**31**	**16**	63.8
B054HA001-A-S02	09/21/00	SW8310	ACNP	MG/KG	0.039	0.35	< 0.039	< 0.039	0.0
B054HA001-A-S02	09/21/00	SW8310	ACNPY	MG/KG	0.042	0.35	< 0.042	< 0.042	0.0
B054HA001-A-S02	09/21/00	SW8310	ANTH	MG/KG	0.0028	0.12	< 0.0028	< 0.0027	0.0
B054HA001-A-S02	09/21/00	SW8310	BZAA	MG/KG	0.0009	0.014	< 0.0009	< 0.0008	0.0
B054HA001-A-S02	09/21/00	SW8310	BZAP	MG/KG	0.0018	0.018	< 0.0018	< 0.0018	0.0
B054HA001-A-S02	09/21/00	SW8310	BZBF	MG/KG	0.0017	0.022	< 0.0017	< 0.0017	0.0
B054HA001-A-S02	09/21/00	SW8310	BZGHIP	MG/KG	0.0017	0.018	< 0.0017	< 0.0017	0.0
B054HA001-A-S02	09/21/00	SW8310	BZKF	MG/KG	0.0012	0.018	< 0.0012	< 0.0012	0.0
B054HA001-A-S02	09/21/00	SW8310	CHRYSENE	MG/KG	0.0013	0.035	< 0.0013	< 0.0013	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S02	09/21/00	SW8310	DBAHA	MG/KG	0.0014	0.035	< 0.0014	< 0.0014	0.0
B054HA001-A-S02	09/21/00	SW8310	FL	MG/KG	0.0075	0.035	< 0.0075	< 0.0074	0.0
B054HA001-A-S02	09/21/00	SW8310	FLA	MG/KG	0.0036	0.044	< 0.0036	< 0.0022	0.0
B054HA001-A-S02	09/21/00	SW8310	INP123	MG/KG	0.0006	0.035	< 0.0006	< 0.0006	0.0
B054HA001-A-S02	09/21/00	SW8310	NAPH	MG/KG	0.025	0.35	< 0.025	< 0.025	0.0
B054HA001-A-S02	09/21/00	SW8310	PHAN	MG/KG	0.0039	0.11	**0.029**	< 0.0018	0.0
B054HA001-A-S02	09/21/00	SW8310	PYR	MG/KG	0.0022	0.053	< 0.0022	< 0.0022	0.0
B118ATR005-A-S03	09/20/00	SW8260B	ACE	MG/KG	0.0024	0.021	**0.033**	**0.016**	69.4
B118ATR005-A-S03	09/20/00	SW8260B	BDCME	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	BRBZ	MG/KG	0.0006	0.0052	< 0.0006	< 0.0005	0.0
B118ATR005-A-S03	09/20/00	SW8260B	BRCLME	MG/KG	0.0004	0.0052	< 0.0004	< 0.0004	0.0
B118ATR005-A-S03	09/20/00	SW8260B	BRME	MG/KG	0.0004	0.01	< 0.0004	< 0.0004	0.0
B118ATR005-A-S03	09/20/00	SW8260B	BTBZN	MG/KG	0.001	0.0052	< 0.001	< 0.0008	0.0
B118ATR005-A-S03	09/20/00	SW8260B	BTBZS	MG/KG	0.0004	0.0052	< 0.0004	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	BTBZT	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	BZ	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	BZME	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	CDS	MG/KG	0.0001	0.0052	**0.0035**	**0.011**	103.4

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B118ATR005-A-S03	09/20/00	SW8260B	CLBZ	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	CLBZME2	MG/KG	0.0004	0.0052	< 0.0004	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	CLBZME4	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	CLEA	MG/KG	0.0006	0.01	< 0.0006	< 0.0005	0.0
B118ATR005-A-S03	09/20/00	SW8260B	CLME	MG/KG	0.0007	0.01	< 0.0007	< 0.0006	0.0
B118ATR005-A-S03	09/20/00	SW8260B	CTCL	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	CYMP	MG/KG	0.0006	0.0052	< 0.0006	< 0.0005	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DBCME	MG/KG	0.0002	0.0052	< 0.0002	< 0.0001	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DBCP	MG/KG	0.0008	0.01	< 0.0008	< 0.0007	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DBMA	MG/KG	0.0003	0.0052	< 0.0003	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCA11	MG/KG	0.0001	0.0052	< 0.0001	< 0.0001	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCA12	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCBZ12	MG/KG	0.0003	0.0052	< 0.0003	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCBZ13	MG/KG	0.0003	0.0052	< 0.0003	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCBZ14	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCE11	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCE12C	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCE12T	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B118ATR005-A-S03	09/20/00	SW8260B	DCP11	MG/KG	0.0005	0.01	< 0.0005	< 0.0005	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCP13C	MG/KG	0.0003	0.0052	< 0.0003	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCP13T	MG/KG	0.0003	0.0052	< 0.0003	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCPA12	MG/KG	0.0003	0.0052	< 0.0003	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCPA13	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	DCPA22	MG/KG	0.0003	0.0052	< 0.0003	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	EBZ	MG/KG	0.0002	0.0052	< 0.0002	< 0.0001	0.0
B118ATR005-A-S03	09/20/00	SW8260B	EDB	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	EMETHACRY	MG/KG	0.0004	0.0052	< 0.0004	< 0.0004	0.0
B118ATR005-A-S03	09/20/00	SW8260B	ETBE	MG/KG	0.0014	0.0052	< 0.0014	< 0.0012	0.0
B118ATR005-A-S03	09/20/00	SW8260B	FC11	MG/KG	0.0002	0.0052	**0.0025**	< 0.0001	0.0
B118ATR005-A-S03	09/20/00	SW8260B	FC12	MG/KG	0.0002	0.01	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	HCBU	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	HXO2	MG/KG	0.0011	0.021	< 0.0011	< 0.001	0.0
B118ATR005-A-S03	09/20/00	SW8260B	IME	MG/KG	0.0003	0.0052	< 0.0003	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	IPBZ	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	ISOPRE	MG/KG	0.0011	0.0052	**0.0019**	**0.0032**	51.0
B118ATR005-A-S03	09/20/00	SW8260B	MEK	MG/KG	0.0017	0.021	**0.0077**	< 0.0015	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B118ATR005-A-S03	09/20/00	SW8260B	MIBK	MG/KG	0.001	0.021	< 0.001	< 0.0009	0.0
B118ATR005-A-S03	09/20/00	SW8260B	MTLNCL	MG/KG	0.001	0.021	< 0.001	< 0.0009	0.0
B118ATR005-A-S03	09/20/00	SW8260B	NAPH	MG/KG	0.0014	0.01	< 0.0014	< 0.0012	0.0
B118ATR005-A-S03	09/20/00	SW8260B	PBZN	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	PCA	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	PCE	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	STY	MG/KG	0.0002	0.0052	< 0.0002	< 0.0001	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TAME	MG/KG	0.001	0.0052	< 0.001	< 0.0009	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TBME	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TBUTMEE	MG/KG	0.0008	0.0052	< 0.0008	< 0.0007	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TC1112	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TCA111	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TCA112	MG/KG	0.0002	0.0052	< 0.0002	< 0.0001	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TCB123	MG/KG	0.0009	0.0052	< 0.0009	< 0.0008	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TCB124	MG/KG	0.0009	0.0052	< 0.0009	< 0.0008	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TCE	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TCLME	MG/KG	0.0004	0.0052	< 0.0004	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TCPR123	MG/KG	0.0005	0.0052	< 0.0005	< 0.0004	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B118ATR005-A-S03	09/20/00	SW8260B	TMB124	MG/KG	0.0005	0.0052	< 0.0005	< 0.0005	0.0
B118ATR005-A-S03	09/20/00	SW8260B	TMB135	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	VA	MG/KG	0.0006	0.0052	< 0.0006	< 0.0005	0.0
B118ATR005-A-S03	09/20/00	SW8260B	VC	MG/KG	0.0003	0.0052	< 0.0003	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	XYLMP	MG/KG	0.0004	0.01	< 0.0004	< 0.0003	0.0
B118ATR005-A-S03	09/20/00	SW8260B	XYLO	MG/KG	0.0002	0.0052	< 0.0002	< 0.0002	0.0
B118ATR005-A-S04	09/20/00	SW8015B	DRO	MG/KG	1.8	4.9	**2**	**3.3**	49.1
B118ATR005-A-S04	09/20/00	SW8015B	RRO	MG/KG	12.	49.	< 12	< 12	0.0
B118ATR005-A-S04	09/20/00	SW8310	ACNP	MG/KG	0.043	0.38	< 0.043	< 0.042	0.0
B118ATR005-A-S04	09/20/00	SW8310	ACNPY	MG/KG	0.046	0.38	< 0.046	< 0.046	0.0
B118ATR005-A-S04	09/20/00	SW8310	ANTH	MG/KG	0.003	0.13	< 0.003	< 0.003	0.0
B118ATR005-A-S04	09/20/00	SW8310	BZAA	MG/KG	0.0009	0.015	< 0.0009	< 0.0009	0.0
B118ATR005-A-S04	09/20/00	SW8310	BZAP	MG/KG	0.002	0.02	< 0.002	< 0.0019	0.0
B118ATR005-A-S04	09/20/00	SW8310	BZBF	MG/KG	0.0019	0.024	< 0.0019	< 0.0018	0.0
B118ATR005-A-S04	09/20/00	SW8310	BZGHIP	MG/KG	0.0019	0.02	< 0.0019	< 0.0018	0.0
B118ATR005-A-S04	09/20/00	SW8310	BZKF	MG/KG	0.0013	0.02	< 0.0013	< 0.0013	0.0
B118ATR005-A-S04	09/20/00	SW8310	CHRYSENE	MG/KG	0.0014	0.038	< 0.0014	< 0.0014	0.0
B118ATR005-A-S04	09/20/00	SW8310	DBAHA	MG/KG	0.0015	0.038	< 0.0015	< 0.0015	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B118ATR005-A-S04	09/20/00	SW8310	FL	MG/KG	0.0082	0.038	< 0.0082	< 0.0081	0.0
B118ATR005-A-S04	09/20/00	SW8310	FLA	MG/KG	0.0024	0.049	< 0.0024	< 0.0024	0.0
B118ATR005-A-S04	09/20/00	SW8310	INP123	MG/KG	0.0007	0.038	< 0.0007	< 0.0007	0.0
B118ATR005-A-S04	09/20/00	SW8310	NAPH	MG/KG	0.028	0.38	< 0.028	< 0.027	0.0
B118ATR005-A-S04	09/20/00	SW8310	PHAN	MG/KG	0.002	0.12	< 0.002	< 0.0019	0.0
B118ATR005-A-S04	09/20/00	SW8310	PYR	MG/KG	0.0024	0.058	< 0.0024	< 0.0024	0.0
B152HA001-A-S01	09/21/00	SW8260B	2958-75-0	MG/KG	0.		**0.05**	**0.091**	58.2
B152HA001-A-S01	09/21/00	SW8260B	91-17-8	MG/KG	0.		**0.065**	**0.074**	12.9
B152HA001-A-S01	09/21/00	SW8260B	ACE	MG/KG	0.0023	0.02	**0.021**	**0.017**	21.1
B152HA001-A-S01	09/21/00	SW8260B	BDCME	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	BRBZ	MG/KG	0.0005	0.0049	< 0.0005	< 0.0005	0.0
B152HA001-A-S01	09/21/00	SW8260B	BRCLME	MG/KG	0.0004	0.0049	< 0.0004	< 0.0004	0.0
B152HA001-A-S01	09/21/00	SW8260B	BRME	MG/KG	0.0004	0.0099	< 0.0004	< 0.0004	0.0
B152HA001-A-S01	09/21/00	SW8260B	BTBZN	MG/KG	0.0009	0.0049	< 0.0009	< 0.0009	0.0
B152HA001-A-S01	09/21/00	SW8260B	BTBZS	MG/KG	0.0004	0.0049	< 0.0004	< 0.0004	0.0
B152HA001-A-S01	09/21/00	SW8260B	BTBZT	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	BZ	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	BZME	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B152HA001-A-S01	09/21/00	SW8260B	CDS	MG/KG	0.0001	0.0049	< 0.0001	**0.0022**	0.0
B152HA001-A-S01	09/21/00	SW8260B	CLBZ	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	CLBZME2	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	CLBZME4	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	CLEA	MG/KG	0.0006	0.0099	< 0.0006	< 0.0006	0.0
B152HA001-A-S01	09/21/00	SW8260B	CLME	MG/KG	0.0006	0.0099	< 0.0006	< 0.0006	0.0
B152HA001-A-S01	09/21/00	SW8260B	CTCL	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	CYMP	MG/KG	0.0006	0.0049	< 0.0006	< 0.0006	0.0
B152HA001-A-S01	09/21/00	SW8260B	DBCME	MG/KG	0.0001	0.0049	< 0.0001	< 0.0001	0.0
B152HA001-A-S01	09/21/00	SW8260B	DBCP	MG/KG	0.0008	0.0099	< 0.0008	< 0.0008	0.0
B152HA001-A-S01	09/21/00	SW8260B	DBMA	MG/KG	0.0003	0.0049	< 0.0003	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCA11	MG/KG	0.0001	0.0049	< 0.0001	< 0.0001	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCA12	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCBZ12	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCBZ13	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCBZ14	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCE11	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCE12C	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B152HA001-A-S01	09/21/00	SW8260B	DCE12T	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCP11	MG/KG	0.0005	0.0099	< 0.0005	< 0.0005	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCP13C	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCP13T	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCPA12	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCPA13	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	DCPA22	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	EBZ	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	EDB	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	EMETHACRY	MG/KG	0.0004	0.0049	< 0.0004	< 0.0004	0.0
B152HA001-A-S01	09/21/00	SW8260B	ETBE	MG/KG	0.0014	0.0049	< 0.0014	< 0.0014	0.0
B152HA001-A-S01	09/21/00	SW8260B	FC11	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	FC12	MG/KG	0.0002	0.0099	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	HCBU	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	HXO2	MG/KG	0.0011	0.02	< 0.0011	< 0.0011	0.0
B152HA001-A-S01	09/21/00	SW8260B	IME	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	IPBZ	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	ISOPRE	MG/KG	0.001	0.0049	< 0.001	< 0.001	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B152HA001-A-S01	09/21/00	SW8260B	MEK	MG/KG	0.0016	0.02	< 0.0016	< 0.0016	0.0
B152HA001-A-S01	09/21/00	SW8260B	MIBK	MG/KG	0.001	0.02	< 0.001	< 0.001	0.0
B152HA001-A-S01	09/21/00	SW8260B	MTLNCL	MG/KG	0.0013	0.0247	< 0.0013	< 0.001	0.0
B152HA001-A-S01	09/21/00	SW8260B	NAPH	MG/KG	0.0013	0.0099	< 0.0013	< 0.0013	0.0
B152HA001-A-S01	09/21/00	SW8260B	PBZN	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	PCA	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	PCE	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	STY	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	TAME	MG/KG	0.001	0.0049	< 0.001	< 0.001	0.0
B152HA001-A-S01	09/21/00	SW8260B	TBME	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	TBUTMEE	MG/KG	0.0008	0.0049	< 0.0008	< 0.0008	0.0
B152HA001-A-S01	09/21/00	SW8260B	TC1112	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	TCA111	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	TCA112	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	TCB123	MG/KG	0.0009	0.0049	< 0.0009	< 0.0009	0.0
B152HA001-A-S01	09/21/00	SW8260B	TCB124	MG/KG	0.0009	0.0049	< 0.0009	< 0.0009	0.0
B152HA001-A-S01	09/21/00	SW8260B	TCE	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S01	09/21/00	SW8260B	TCLME	MG/KG	0.0004	0.0049	< 0.0004	< 0.0004	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B152HA001-A-S01	09/21/00	SW8260B	TCPR123	MG/KG	0.0005	0.0049	< 0.0005	< 0.0005	0.0
B152HA001-A-S01	09/21/00	SW8260B	TMB124	MG/KG	0.0005	0.0049	< 0.0005	< 0.0005	0.0
B152HA001-A-S01	09/21/00	SW8260B	TMB135	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	VA	MG/KG	0.0006	0.0049	< 0.0006	< 0.0006	0.0
B152HA001-A-S01	09/21/00	SW8260B	VC	MG/KG	0.0003	0.0049	< 0.0003	< 0.0003	0.0
B152HA001-A-S01	09/21/00	SW8260B	XYLMP	MG/KG	0.0004	0.0099	< 0.0004	< 0.0004	0.0
B152HA001-A-S01	09/21/00	SW8260B	XYLO	MG/KG	0.0002	0.0049	< 0.0002	< 0.0002	0.0
B152HA001-A-S02	09/21/00	SW6010B	AG	MG/KG	0.378	3.62	< 0.378	< 0.377	0.0
B152HA001-A-S02	09/21/00	SW6010B	AL	MG/KG	124.	908.	**17300**	**16600**	4.1
B152HA001-A-S02	09/21/00	SW6010B	BA	MG/KG	0.032	0.362	**67.6**	**73.6**	8.5
B152HA001-A-S02	09/21/00	SW6010B	BE	MG/KG	0.0101	0.0905	**0.663**	**0.652**	1.7
B152HA001-A-S02	09/21/00	SW6010B	CA	MG/KG	3.95	36.2	**3010**	**2970**	1.3
B152HA001-A-S02	09/21/00	SW6010B	CD	MG/KG	0.0804	0.905	**0.145**	**0.109**	28.3
B152HA001-A-S02	09/21/00	SW6010B	CO	MG/KG	0.287	1.8	**7.73**	**6.9**	11.3
B152HA001-A-S02	09/21/00	SW6010B	CR	MG/KG	0.351	1.8	**36.6**	**36.8**	0.5
B152HA001-A-S02	09/21/00	SW6010B	CU	MG/KG	0.61	2.72	**13.6**	**13.7**	0.7
B152HA001-A-S02	09/21/00	SW6010B	FE	MG/KG	89.1	679.	**31000**	**36800**	17.1
B152HA001-A-S02	09/21/00	SW6010B	K	MG/KG	96.8	453.	**2920**	**2810**	3.8

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B152HA001-A-S02	09/21/00	SW6010B	MG	MG/KG	3.82	36.2	**7500**	**7280**	3.0
B152HA001-A-S02	09/21/00	SW6010B	MN	MG/KG	0.27	2.27	**249**	**237**	4.9
B152HA001-A-S02	09/21/00	SW6010B	MO	MG/KG	0.757	5.43	< 0.757	< 0.754	0.0
B152HA001-A-S02	09/21/00	SW6010B	NA	MG/KG	17.6	90.5	**211**	**206**	2.4
B152HA001-A-S02	09/21/00	SW6010B	NI	MG/KG	0.735	7.25	**19.3**	**19.8**	2.6
B152HA001-A-S02	09/21/00	SW6010B	PB	MG/KG	0.154	0.905	**7.81**	**7.36**	5.9
B152HA001-A-S02	09/21/00	SW6010B	SB	MG/KG	3.12	9.02	< 3.12	< 5.36	0.0
B152HA001-A-S02	09/21/00	SW6010B	SN	MG/KG	1.79	9.05	**4.15**	**3.53**	16.1
B152HA001-A-S02	09/21/00	SW6010B	V	MG/KG	0.327	1.82	**53.8**	**52.1**	3.2
B152HA001-A-S02	09/21/00	SW6010B	ZN	MG/KG	0.328	1.82	**62.4**	**61.3**	1.8
B152HA001-A-S02	09/21/00	SW7060A	AS	MG/KG	1.21	3.62	**10.6**	**11**	3.7
B152HA001-A-S02	09/21/00	SW7471A	HG	MG/KG	0.0174	0.0902	< 0.0174	< 0.0173	0.0
B152HA001-A-S02	09/21/00	SW7740	SE	MG/KG	0.111	0.452	**3.25**	**1.36**	82.0
B152HA001-A-S02	09/21/00	SW7841	TL	MG/KG	0.0696	0.272	**0.697**	**0.682**	2.2
B152HA001-A-S02	09/21/00	SW8015B	DRO	MG/KG	1.7	4.6	**320**	**160**	66.7
B152HA001-A-S02	09/21/00	SW8015B	RRO	MG/KG	12.	46.	**64**	< 12	0.0
B152HA001-A-S02	09/21/00	SW8310	ACNP	MG/KG	0.04	0.36	< 0.04	< 0.04	0.0
B152HA001-A-S02	09/21/00	SW8310	ACNPY	MG/KG	0.043	0.36	< 0.043	< 0.043	0.0

Appendix F, continued

Analytical Results for Field Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B152HA001-A-S02	09/21/00	SW8310	ANTH	MG/KG	0.0028	0.13	< 0.0028	< 0.0028	0.0
B152HA001-A-S02	09/21/00	SW8310	BZAA	MG/KG	0.0045	0.014	< 0.0045	< 0.0009	0.0
B152HA001-A-S02	09/21/00	SW8310	BZAP	MG/KG	0.0018	0.018	**0.0084**	**0.0078**	7.4
B152HA001-A-S02	09/21/00	SW8310	BZBF	MG/KG	0.0017	0.023	< 0.0017	< 0.0017	0.0
B152HA001-A-S02	09/21/00	SW8310	BZGHIP	MG/KG	0.0017	0.018	**0.0052**	< 0.0017	0.0
B152HA001-A-S02	09/21/00	SW8310	BZKF	MG/KG	0.0012	0.018	**0.04**	**0.045**	11.8
B152HA001-A-S02	09/21/00	SW8310	CHRYSENE	MG/KG	0.0013	0.036	< 0.0013	< 0.0013	0.0
B152HA001-A-S02	09/21/00	SW8310	DBAHA	MG/KG	0.0014	0.036	< 0.0014	< 0.0014	0.0
B152HA001-A-S02	09/21/00	SW8310	FL	MG/KG	0.0077	0.036	**0.11**	**0.13**	16.7
B152HA001-A-S02	09/21/00	SW8310	FLA	MG/KG	0.0023	0.046	< 0.0023	< 0.0023	0.0
B152HA001-A-S02	09/21/00	SW8310	INP123	MG/KG	0.0007	0.036	**0.0062**	< 0.0007	0.0
B152HA001-A-S02	09/21/00	SW8310	NAPH	MG/KG	0.026	0.36	< 0.026	< 0.026	0.0
B152HA001-A-S02	09/21/00	SW8310	PHAN	MG/KG	0.004	0.11	< 0.004	**0.34**	0.0
B152HA001-A-S02	09/21/00	SW8310	PYR	MG/KG	0.0023	0.054	< 0.0023	**0.027**	0.0

APPENDIX G

SUMMARY OF LABORATORY DUPLICATE RESULTS

Appendix G

Analytical Results for Lab Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S02	09/21/00	SW6010B	AG	MG/KG	0.368	3.52	< 0.368	**0.388**	0.0
B054HA001-A-S02	09/21/00	SW6010B	AL	MG/KG	48.5	353.	**6350**	**6430**	1.3
B054HA001-A-S02	09/21/00	SW6010B	BA	MG/KG	0.0311	0.352	**43.8**	**38.7**	12.4
B054HA001-A-S02	09/21/00	SW6010B	BE	MG/KG	0.336	0.365	< 0.336	< 0.291	0.0
B054HA001-A-S02	09/21/00	SW6010B	CA	MG/KG	3.84	35.2	**1960**	**2230**	12.9
B054HA001-A-S02	09/21/00	SW6010B	CD	MG/KG	0.0783	0.881	**0.23**	**0.202**	13.0
B054HA001-A-S02	09/21/00	SW6010B	CO	MG/KG	0.279	1.76	**6.35**	**4.94**	25.0
B054HA001-A-S02	09/21/00	SW6010B	CR	MG/KG	0.342	1.76	**13.9**	**13.6**	2.2
B054HA001-A-S02	09/21/00	SW6010B	CU	MG/KG	0.594	2.65	**8.72**	**7.54**	14.5
B054HA001-A-S02	09/21/00	SW6010B	FE	MG/KG	34.7	265.	**12200**	**12900**	5.6
B054HA001-A-S02	09/21/00	SW6010B	K	MG/KG	94.3	441.	**1040**	**876**	17.1
B054HA001-A-S02	09/21/00	SW6010B	MG	MG/KG	3.71	35.2	**2800**	**2580**	8.2
B054HA001-A-S02	09/21/00	SW6010B	MN	MG/KG	0.0525	0.441	**105**	**90.5**	14.8
B054HA001-A-S02	09/21/00	SW6010B	MO	MG/KG	0.737	5.29	< 0.737	< 0.737	0.0
B054HA001-A-S02	09/21/00	SW6010B	NA	MG/KG	17.1	88.1	**98.4**	**98.4**	0.0
B054HA001-A-S02	09/21/00	SW6010B	NI	MG/KG	0.715	7.06	**16.1**	**14.9**	7.7
B054HA001-A-S02	09/21/00	SW6010B	PB	MG/KG	0.15	0.881	**7.17**	**5.67**	23.4
B054HA001-A-S02	09/21/00	SW6010B	SB	MG/KG	3.04	8.78	< 3.04	< 3.04	0.0

Appendix G, continued

Analytical Results for Lab Duplicates
Area I Fuel Only Facilities QCSR

Soil:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B054HA001-A-S02	09/21/00	SW6010B	SN	MG/KG	1.75	8.81	**1.77**	**4.34**	84.1
B054HA001-A-S02	09/21/00	SW6010B	V	MG/KG	0.319	1.77	**23**	**20.1**	13.5
B054HA001-A-S02	09/21/00	SW6010B	ZN	MG/KG	0.32	1.77	**34.5**	**29.9**	14.3
B054HA001-A-S02	09/21/00	SW7060A	AS	MG/KG	0.587	1.76	**3.61**	**3.89**	7.5
B054HA001-A-S02	09/21/00	SW7471A	HG	MG/KG	0.0169	0.0878	**0.097**	**0.098**	1.0
B054HA001-A-S02	09/21/00	SW7740	SE	MG/KG	0.108	0.44	< 0.108	< 0.108	0.0
B054HA001-A-S02	09/21/00	SW7841	TL	MG/KG	0.0677	0.265	**0.366**	**0.361**	1.4

Water:

Sample ID	Sample Date	Analytical Method	Analyte	Units	Primary MDL	Primary PQL	Primary Result	Duplicate Result	RPD
B118ATR004-A-W01	09/19/00	E160.1	TDS	MG/L	4.33	10.	**855**	**850**	0.6

APPENDIX E

LEGEND FOR ANALYTICAL RESULT TABLES

LEGEND FOR ANALYTICAL RESULT TABLES

Abbreviations

Abbreviation	Explanation
MDL	Method detection limit
MG/KG	Milligrams per kilogram
MG/L	Milligrams per liter
UG/L	Micrograms per liter
MQL	Method quantitation limit
D1	Duplicate sample designation
R1	Primary sample designation

Data Qualification Flags

Flag	Qualification
J	The analyte was positively identified. The value is an estimated quantity. The bias is unknown.
J+	The analyte was positively identified. The value is an estimated quantity. The bias is high.
J-	The analyte was positively identified. The value is an estimated quantity. The bias is low.
N	The analysis indicates presumptive evidence for a tentative identification of the analyte such as an unconfirmed GC analyte.
NJ	The analysis indicates presumptive evidence for a tentative identification of the analyte. The value is an estimated quantity. The bias is unknown.
NJ+	The analysis indicates presumptive evidence for a tentative identification of the analyte. The value is an estimated quantity. The bias is high.
NJ-	The analysis indicates presumptive evidence for a tentative identification of the analyte. The value is an estimated quantity. The bias is low.
R	Due to significant QA/QC deficiencies, the data are unusable. The analyte may or may not be present.
U	The material was analyzed for, but not detected above the stated MDL.
UJ	The material was analyzed for, but not detected above an estimated MDL.
(blank)	Unqualified result.

Data Qualification Reason Codes

Code	Explanation
1	Holding time exceeded.
2	Result was less than 5 times (ten times for common lab contaminants) the concentration found in the associated method blank. Result flagged as not detected (U) and detection limit raised to the concentration reported for the sample.
3	Surrogate recovery outside of acceptance criteria. (3H if high bias or 3L for low bias)

Data Qualification Reason Codes

Code	Explanation
4	MS/MSD recovery outside of acceptance criteria. (4H if high bias or 4L for low bias)
5	MS/MSD precision outside acceptance criteria.
6	LCS recovery outside of acceptance. (6H if high bias or 6L for low bias)
7	Result was less than 5 times (10 times for common lab contaminants) the concentration found in an associated equipment or trip blank. Result flagged as not detected (U) and detection limit raised to the concentration reported for the sample.
8	Field duplicate precision outside of control limit.
H	High bias.
L	Low bias.
P	First column vs. confirmation column (or detector) precision is outside of control limit.
Q	Initial calibration did not meet QC requirements.
S	Continuing calibration verification problems.
T	Trace level concentration above the method detection limit (MDL) but below the practical quantitation limit (PQL).
Y	Initial and/or continuing calibration blank problem. Result flagged as not detected (U) and detection limit raised to the concentration reported for the sample.
U	Reported concentration is already accounted for in another hydrocarbon range. The quantitation is solely the result of overlapping quantitation ranges. The result should be treated as a non-detect for site evaluation and risk assessment purposes.
V	Initial second-source calibration verification problems.

Analyte Acronyms[1]

Abbreviation	Analyte Name
13152-05-1	3-METHYLCYCLOOCTENE
138-86-3	4-ISOPROPENYL-1-METHYL-CYCLOHEXENE
1678-97-3	1,2,3-TRIMETHYLCYCLOHEXANE
17059-48-2	1H-INDENE,2,2-DIHYDRO-1,6-DIMETHYL
17301-23-4	2,6-DIMETHYLUNDECANE
20836-11-7	2,3-DIHYDRO-2,2-DIMETHYLINDENE,
2958-75-0	ALPHA-METHYLDECALIN
2958-76-1	METHYLDECAHYDRONAPHTHALENE
31295-56-4	2,6,11-TRIMETHYLDODECANE
3891-98-3	2,6,10-TRIMETHYLDODECANE
496-10-6	HEXAHYDROINDAN
53366-38-4	2-METHYLBUTYLCYCLOPENTANE
5364-83-0	1-PROPENYLCYCLOHEXANE
581-42-0	2,6-DIMETHYLNAPHTHALENE
582-16-1	2,7-DIMETHYLNAPHTHALENE
694-72-4	BICYCLO[3.3.0]OCTANE

Analyte Acronyms[1]

696-29-7	ISOPROPYLCYCLOHEXANE
91-17-8	DECAHYDRONAPHTHALENE
ACE	ACETONE
ACNP	ACENAPHTHENE
ACNPY	ACENAPHTHYLENE
AG	SILVER
AL	ALUMINUM
ANTH	ANTHRACENE
AS	ARSENIC
BA	BARIUM
BDCME	BROMODICHLOROMETHANE
BE	BERYLLIUM
BRBZ	BROMOBENZENE
BRCLME	BROMOCHLOROMETHANE
BRME	BROMOMETHANE
BTBZN	n-BUTYLBENZENE
BTBZS	SEC-BUTYLBENZENE
BTBZT	t-BUTYLBENZENE
BZ	BENZENE
BZAA	BENZO(a)ANTHRACENE
BZAP	BENZO(a)PYRENE
BZBF	BENZO(b)FLUORANTHENE
BZGHIP	BENZO(g,h,i)PERYLENE
BZKF	BENZO(k)FLUORANTHENE
BZME	TOLUENE
CA	CALCIUM
CD	CADMIUM
CDS	CARBON DISULFIDE
CHRYSENE	CHRYSENE
CLBZ	CHLOROBENZENE
CLBZME2	2-CHLOROTOLUENE
CLBZME4	4-CHLOROTOLUENE
CLEA	CHLOROETHANE
CLME	CHLOROMETHANE
CO	COBALT
CR	CHROMIUM, TOTAL
CTCL	CARBON TETRACHLORIDE
CU	COPPER
CYMP	P-CYMENE (p-ISOPROPYLTOLUENE)
DBAHA	DIBENZ(a,h)ANTHRACENE
DBCME	DIBROMOCHLOROMETHANE
DBCP	1,2-DIBROMO-3-CHLOROPROPANE
DBMA	DIBROMOMETHANE
DCA11	1,1-DICHLOROETHANE
DCA12	1,2-DICHLOROETHANE
DCBZ12	1,2-DICHLOROBENZENE
DCBZ13	1,3-DICHLOROBENZENE

Analyte Acronyms[1]

DCBZ14	1,4-DICHLOROBENZENE
DCE11	1,1-DICHLOROETHENE
DCE12C	cis-1,2-DICHLOROETHYLENE
DCE12T	trans-1,2-DICHLOROETHENE
DCP11	1,1-DICHLOROPROPENE
DCP13C	cis-1,3-DICHLOROPROPENE
DCP13T	trans-1,3-DICHLOROPROPENE
DCPA12	1,2-DICHLOROPROPANE
DCPA13	1,3-DICHLOROPROPANE
DCPA22	2,2-DICHLOROPROPANE
DRO	Diesel Range Organics
EBZ	ETHYLBENZENE
EDB	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)
EMETHACRY	ETHYL METHACRYLATE
ETBE	TERT-BUTYL ETHYL ETHER (ETBE)
FC11	TRICHLOROFLUOROMETHANE
FC12	DICHLORODIFLUOROMETHANE
FE	IRON
FL	FLUORENE
FLA	FLUORANTHENE
GRO	Gasoline Range Organics
HCBU	HEXACHLOROBUTADIENE
HG	MERCURY
HXO2	2-HEXANONE
IME	IODOMETHANE (METHYL IODIDE)
INP123	INDENO(1,2,3-c,d)PYRENE
IPBZ	ISOPROPYLBENZENE (CUMENE)
ISOPRE	DIISOPROPYL ETHER (DIPE)
K	POTASSIUM
MEK	METHYL ETHYL KETONE (2-BUTANONE)
MG	MAGNESIUM
MIBK	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)
MN	MANGANESE
MO	MOLYBDENUM
MOIST	MOISTURE, PERCENT
MTLNCL	METHYLENE CHLORIDE
NA	SODIUM
NAPH	NAPHTHALENE
NI	NICKEL
PB	LEAD
PBZN	n-PROPYLBENZENE
PCA	1,1,2,2-TETRACHLOROETHANE
PCE	TETRACHLOROETHYLENE(PCE)
PHAN	PHENANTHRENE
PYR	PYRENE
RRO	Residual Range Organics
SB	ANTIMONY

Analyte Acronyms[1]

SE	SELENIUM
SN	TIN
STY	STYRENE
TAME	TERT-AMYL METHYL ETHER (TAME)
TBME	BROMOFORM
TBUTMEE	TERT-BUTYL METHYL ETHER (MTBE)
TC1112	1,1,1,2-TETRACHLOROETHANE
TCA111	1,1,1-TRICHLOROETHANE
TCA112	1,1,2-TRICHLOROETHANE
TCB123	1,2,3-TRICHLOROBENZENE
TCB124	1,2,4-TRICHLOROBENZENE
TCE	TRICHLOROETHYLENE (TCE)
TCLME	CHLOROFORM
TCPR123	1,2,3-TRICHLOROPROPANE
TDS	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)
TL	THALLIUM
TMB124	1,2,4-TRIMETHYLBENZENE
TMB135	1,3,5-TRIMETHYLBENZENE (MESITYLENE)
V	VANADIUM
VA	VINYL ACETATE
VC	VINYL CHLORIDE
XYLMP	M,P-XYLENE (SUM OF ISOMERS)
XYLO	O-XYLENE (1,2-DIMETHYLBENZENE)
ZN	ZINC

[1] from Environmental Resources Program Information Management System (ERPIMS)

APPENDIX F

ANALYTICAL RESULTS FOR ALL CONSTITUENTS IN SOIL FROM THE FUEL ONLY INVESTIGATION

Appendix F

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B026TR001-A-S01	9/20/2000	6.3-6.8	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0063	U	-
B026TR001-A-S01	9/20/2000	6.3-6.8	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0063	U	-
B026TR001-A-S01	9/20/2000	6.3-6.8	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0063	U	-
B026TR001-A-S01	9/20/2000	6.3-6.8	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.013	U	-
B026TR001-A-S01	9/20/2000	6.3-6.8	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0063	U	-
B026TR001-A-S03	9/20/2000	8.5-9	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0053	U	-
B026TR001-A-S03	9/20/2000	8.5-9	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0053	U	-
B026TR001-A-S03	9/20/2000	8.5-9	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0053	U	-
B026TR001-A-S03	9/20/2000	8.5-9	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.011	U	-
B026TR001-A-S03	9/20/2000	8.5-9	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0053	U	-
B028TR001-A-S01	9/27/2000	4.5-4.7	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0053	U	-
B028TR001-A-S01	9/27/2000	4.5-4.7	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0053	U	-
B028TR001-A-S01	9/27/2000	4.5-4.7	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0053	U	-
B028TR001-A-S01	9/27/2000	4.5-4.7	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.011	U	-
B028TR001-A-S01	9/27/2000	4.5-4.7	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0053	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	ACE	**0.091**	MG/KG	0.0024	0.02	J+	3H
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	ACE	**0.2**	MG/KG	0.0027	0.023	-	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BRBZ	< 0.0006	MG/KG	0.0006	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BRCLME	< 0.0005	MG/KG	0.0005	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.01	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BRME	< 0.0005	MG/KG	0.0005	0.012	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BTBZN	< 0.0011	MG/KG	0.0011	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0051	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	CDS	**0.0037**	MG/KG	0.0001	0.0058	J	T
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLBZME2	< 0.0004	MG/KG	0.0004	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	CLBZME2	< 0.0004	MG/KG	0.0004	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	CLBZME4	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.01	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	CLEA	< 0.0007	MG/KG	0.0007	0.012	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.01	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	CLME	< 0.0007	MG/KG	0.0007	0.012	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	CYMP	< 0.0007	MG/KG	0.0007	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DBCME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DBCME	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DBCP	< 0.0008	MG/KG	0.0008	0.01	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DBCP	< 0.0009	MG/KG	0.0009	0.012	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DBMA	< 0.0003	MG/KG	0.0003	0.0051	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DBMA	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCA11	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ13	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ13	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCE11	< 0.0004	MG/KG	0.0004	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCE12T	< 0.0004	MG/KG	0.0004	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.01	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCP11	< 0.0006	MG/KG	0.0006	0.012	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCP13C	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCPA13	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0051	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	EMETHACRY	< 0.0005	MG/KG	0.0005	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	ETBE	< 0.0014	MG/KG	0.0014	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	ETBE	< 0.0016	MG/KG	0.0016	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.01	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.012	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	HXO2	< 0.0011	MG/KG	0.0011	0.02	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	HXO2	< 0.0013	MG/KG	0.0013	0.023	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	IME	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	ISOPRE	< 0.0012	MG/KG	0.0012	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	MEK	**0.021**	MG/KG	0.0017	0.02	J+	3H
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	MEK	**0.039**	MG/KG	0.0019	0.023	-	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	MIBK	< 0.001	MG/KG	0.001	0.02	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	MIBK	< 0.0011	MG/KG	0.0011	0.023	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	MTLNCL	< 0.0022	MG/KG	0.0022	0.0254	U	27

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	MTLNCL	< 0.0011	MG/KG	0.0011	0.023	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	NAPH	< 0.0013	MG/KG	0.0013	0.01	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	NAPH	< 0.0015	MG/KG	0.0015	0.012	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	PCE	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TAME	< 0.001	MG/KG	0.001	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TAME	< 0.0011	MG/KG	0.0011	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TBUTMEE	< 0.0009	MG/KG	0.0009	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TCB123	< 0.001	MG/KG	0.001	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCB124	< 0.0009	MG/KG	0.0009	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TCB124	< 0.001	MG/KG	0.001	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0051	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TMB124	< 0.0006	MG/KG	0.0006	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	VA	< 0.0006	MG/KG	0.0006	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	VA	< 0.0007	MG/KG	0.0007	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	VC	< 0.0004	MG/KG	0.0004	0.0058	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.01	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.012	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0051	U	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0058	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	ACE	**0.078**	MG/KG	0.0023	0.02	J+	3H
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0098	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0049	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.0098	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0098	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DBCP	< 0.0008	MG/KG	0.0008	0.0098	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0098	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	ETBE	< 0.0014	MG/KG	0.0014	0.0049	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0098	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	HXO2	< 0.0011	MG/KG	0.0011	0.02	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	MEK	**0.015**	MG/KG	0.0016	0.02	J+	3HT
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	MIBK	< 0.001	MG/KG	0.001	0.02	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	MTLNCL	< 0.0015	MG/KG	0.0015	0.0246	U	27
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	NAPH	< 0.0013	MG/KG	0.0013	0.0098	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TAME	< 0.001	MG/KG	0.001	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCB124	< 0.0009	MG/KG	0.0009	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0049	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	VA	< 0.0006	MG/KG	0.0006	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0049	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	XYLMP	< 0.0003	MG/KG	0.0003	0.0098	U	-
B054HA002-A-S01	9/21/2000	0-0.2	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0049	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	ACE	**0.019**	MG/KG	0.0022	0.019	-	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0093	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BTBZS	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.0093	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0093	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DBCP	< 0.0007	MG/KG	0.0007	0.0093	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCBZ12	< 0.0002	MG/KG	0.0002	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0093	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCP13T	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCPA12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	ETBE	< 0.0013	MG/KG	0.0013	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	FC11	**0.0033**	MG/KG	0.0002	0.0047	J	T
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0093	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	HXO2	< 0.001	MG/KG	0.001	0.019	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	MEK	< 0.0015	MG/KG	0.0015	0.019	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	MIBK	< 0.0009	MG/KG	0.0009	0.019	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	MTLNCL	< 0.0015	MG/KG	0.0015	0.0261	U	27
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	NAPH	< 0.0012	MG/KG	0.0012	0.0093	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TAME	< 0.0009	MG/KG	0.0009	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TBUTMEE	< 0.0007	MG/KG	0.0007	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TCB123	< 0.0008	MG/KG	0.0008	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TCB124	< 0.0008	MG/KG	0.0008	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TCPR123	< 0.0004	MG/KG	0.0004	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	VA	< 0.0005	MG/KG	0.0005	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	XYLMP	< 0.0003	MG/KG	0.0003	0.0093	U	-
B118ATR001-A-S01	9/19/2000	1.3-1.5	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	ACE	**0.016**	MG/KG	0.0022	0.019	J	T
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0093	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BTBZS	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.0093	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0093	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DBCP	< 0.0007	MG/KG	0.0007	0.0093	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCBZ12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0093	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCP13T	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCPA12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	ETBE	< 0.0013	MG/KG	0.0013	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	FC11	**0.0014**	MG/KG	0.0002	0.0047	J	T
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0093	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	HXO2	< 0.001	MG/KG	0.001	0.019	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	MEK	< 0.0015	MG/KG	0.0015	0.019	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	MIBK	< 0.0009	MG/KG	0.0009	0.019	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	MTLNCL	< 0.0009	MG/KG	0.0009	0.019	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	NAPH	< 0.0012	MG/KG	0.0012	0.0093	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TAME	< 0.0009	MG/KG	0.0009	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TBUTMEE	< 0.0007	MG/KG	0.0007	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TCB123	< 0.0008	MG/KG	0.0008	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TCB124	< 0.0008	MG/KG	0.0008	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TCPR123	< 0.0004	MG/KG	0.0004	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	VA	< 0.0005	MG/KG	0.0005	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0047	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	XYLMP	< 0.0003	MG/KG	0.0003	0.0093	U	-
B118ATR004-A-S01	9/20/2000	3.3-3.5	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0047	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	ACE	**0.033**	MG/KG	0.0024	0.021	-	8
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	ACE	**0.016**	MG/KG	0.0021	0.018	J	8T
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BRBZ	< 0.0006	MG/KG	0.0006	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.01	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0089	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BTBZN	< 0.001	MG/KG	0.001	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BTBZN	< 0.0008	MG/KG	0.0008	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BTBZS	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	CDS	**0.0035**	MG/KG	0.0001	0.0052	J	8T
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	CDS	**0.011**	MG/KG	0.0001	0.0045	-	8

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	CLBZME2	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.01	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	CLEA	< 0.0005	MG/KG	0.0005	0.0089	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	CLME	< 0.0007	MG/KG	0.0007	0.01	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0089	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	CYMP	< 0.0005	MG/KG	0.0005	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DBCME	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DBCP	< 0.0008	MG/KG	0.0008	0.01	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DBCP	< 0.0007	MG/KG	0.0007	0.0089	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DBMA	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCBZ12	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCBZ13	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0045	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.01	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0089	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCP13C	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCP13T	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCPA12	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	DCPA22	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	EBZ	< 0.0001	MG/KG	0.0001	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	ETBE	< 0.0014	MG/KG	0.0014	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	ETBE	< 0.0012	MG/KG	0.0012	0.0045	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	FC11	**0.0025**	MG/KG	0.0002	0.0052	J	8T
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	FC11	< 0.0001	MG/KG	0.0001	0.0045	U	8
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.01	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0089	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	HXO2	< 0.0011	MG/KG	0.0011	0.021	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	HXO2	< 0.001	MG/KG	0.001	0.018	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	IME	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	ISOPRE	**0.0019**	MG/KG	0.0011	0.0052	J	T
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	ISOPRE	**0.0032**	MG/KG	0.0009	0.0045	J	T
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	MEK	**0.0077**	MG/KG	0.0017	0.021	J	T
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	MEK	< 0.0015	MG/KG	0.0015	0.018	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	MIBK	< 0.001	MG/KG	0.001	0.021	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	MIBK	< 0.0009	MG/KG	0.0009	0.018	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	MTLNCL	< 0.001	MG/KG	0.001	0.021	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	MTLNCL	< 0.0009	MG/KG	0.0009	0.018	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	NAPH	< 0.0014	MG/KG	0.0014	0.01	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	NAPH	< 0.0012	MG/KG	0.0012	0.0089	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0045	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	STY	< 0.0001	MG/KG	0.0001	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TAME	< 0.001	MG/KG	0.001	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TAME	< 0.0009	MG/KG	0.0009	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TBUTMEE	< 0.0007	MG/KG	0.0007	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TCA112	< 0.0001	MG/KG	0.0001	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TCB123	< 0.0008	MG/KG	0.0008	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TCB124	< 0.0009	MG/KG	0.0009	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TCB124	< 0.0008	MG/KG	0.0008	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TCLME	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TCPR123	< 0.0004	MG/KG	0.0004	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0045	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	VA	< 0.0006	MG/KG	0.0006	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	VA	< 0.0005	MG/KG	0.0005	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0045	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.01	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	XYLMP	< 0.0003	MG/KG	0.0003	0.0089	U	-
B118ATR005-A-S03	9/20/2000	2.5-2.7	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S01*	9/20/2000	2.5-2.7	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0045	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	ACE	**0.014**	MG/KG	0.0024	0.021	J	T
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BRBZ	< 0.0006	MG/KG	0.0006	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.01	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BTBZN	< 0.001	MG/KG	0.001	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	CLBZME2	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.01	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	CLME	< 0.0007	MG/KG	0.0007	0.01	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DBCME	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DBCP	< 0.0008	MG/KG	0.0008	0.01	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DBMA	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCBZ13	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.01	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCP13C	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	ETBE	< 0.0014	MG/KG	0.0014	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	FC11	**0.0026**	MG/KG	0.0002	0.0052	J	T
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.01	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	HXO2	< 0.0011	MG/KG	0.0011	0.021	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	IME	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	ISOPRE	< 0.0011	MG/KG	0.0011	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	MEK	< 0.0017	MG/KG	0.0017	0.021	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	MIBK	< 0.001	MG/KG	0.001	0.021	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	MTLNCL	< 0.0013	MG/KG	0.0013	0.0291	U	27
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	NAPH	< 0.0014	MG/KG	0.0014	0.01	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TAME	< 0.001	MG/KG	0.001	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TCB124	< 0.0009	MG/KG	0.0009	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	VA	< 0.0006	MG/KG	0.0006	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0052	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.01	U	-
B118ATR005-A-S05	9/20/2000	6.5-6.7	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0052	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	ACE	**0.021**	MG/KG	0.0023	0.02	-	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	ACE	**0.017**	MG/KG	0.0023	0.02	J	T
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0049	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0099	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0099	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0049	U	8
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	CDS	**0.0022**	MG/KG	0.0001	0.0049	J	8T
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.0099	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.0099	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0099	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0099	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0049	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DBCP	< 0.0008	MG/KG	0.0008	0.0099	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DBCP	< 0.0008	MG/KG	0.0008	0.0099	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DBMA	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0099	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0099	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0049	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	ETBE	< 0.0014	MG/KG	0.0014	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	ETBE	< 0.0014	MG/KG	0.0014	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0099	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0099	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	HXO2	< 0.0011	MG/KG	0.0011	0.02	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	HXO2	< 0.0011	MG/KG	0.0011	0.02	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	MEK	< 0.0016	MG/KG	0.0016	0.02	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	MEK	< 0.0016	MG/KG	0.0016	0.02	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	MIBK	< 0.001	MG/KG	0.001	0.02	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	MIBK	< 0.001	MG/KG	0.001	0.02	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	MTLNCL	< 0.0013	MG/KG	0.0013	0.0247	U	27
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	MTLNCL	< 0.001	MG/KG	0.001	0.02	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	NAPH	< 0.0013	MG/KG	0.0013	0.0099	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	NAPH	< 0.0013	MG/KG	0.0013	0.0099	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TAME	< 0.001	MG/KG	0.001	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TAME	< 0.001	MG/KG	0.001	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0049	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TCB124	< 0.0009	MG/KG	0.0009	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TCB124	< 0.0009	MG/KG	0.0009	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	VA	< 0.0006	MG/KG	0.0006	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	VA	< 0.0006	MG/KG	0.0006	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0049	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.0099	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.0099	U	-
B152HA001-A-S01	9/21/2000	4-4.2	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0049	U	-
B152HA001-B-S01*	9/21/2000	4.2-4.4	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0049	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ACE	< 0.002	MG/KG	0.002	0.018	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0044	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0088	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZN	< 0.0008	MG/KG	0.0008	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZS	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLEA	< 0.0005	MG/KG	0.0005	0.0088	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0088	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CYMP	< 0.0005	MG/KG	0.0005	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBCP	< 0.0007	MG/KG	0.0007	0.0088	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ12	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0088	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0044	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP13T	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA12	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA22	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EBZ	< 0.0001	MG/KG	0.0001	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ETBE	< 0.0012	MG/KG	0.0012	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	FC11	< 0.0001	MG/KG	0.0001	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0088	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	HCBU	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	HXO2	< 0.001	MG/KG	0.001	0.018	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ISOPRE	< 0.0009	MG/KG	0.0009	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MEK	< 0.0014	MG/KG	0.0014	0.018	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MIBK	< 0.0009	MG/KG	0.0009	0.018	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MTLNCL	< 0.0009	MG/KG	0.0009	0.018	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	NAPH	< 0.0011	MG/KG	0.0011	0.0088	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	STY	< 0.0001	MG/KG	0.0001	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TAME	< 0.0009	MG/KG	0.0009	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TBUTMEE	< 0.0007	MG/KG	0.0007	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0044	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCA112	< 0.0001	MG/KG	0.0001	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCB123	< 0.0008	MG/KG	0.0008	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCB124	< 0.0008	MG/KG	0.0008	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCLME	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCPR123	< 0.0004	MG/KG	0.0004	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TMB135	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	VA	< 0.0005	MG/KG	0.0005	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0044	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	XYLMP	< 0.0003	MG/KG	0.0003	0.0088	U	-
B178HA001-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0044	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ACE	**0.019**	MG/KG	0.0021	0.018	-	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.009	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZN	< 0.0008	MG/KG	0.0008	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZS	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLEA	< 0.0005	MG/KG	0.0005	0.009	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.009	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBCP	< 0.0007	MG/KG	0.0007	0.009	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ12	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.009	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP13T	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA12	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA22	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ETBE	< 0.0012	MG/KG	0.0012	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	FC11	< 0.0001	MG/KG	0.0001	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.009	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	HXO2	< 0.001	MG/KG	0.001	0.018	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0045	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ISOPRE	< 0.0009	MG/KG	0.0009	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MEK	< 0.0015	MG/KG	0.0015	0.018	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MIBK	< 0.0009	MG/KG	0.0009	0.018	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MTLNCL	< 0.001	MG/KG	0.001	0.0226	U	27
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	NAPH	< 0.0012	MG/KG	0.0012	0.009	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TAME	< 0.0009	MG/KG	0.0009	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TBUTMEE	< 0.0007	MG/KG	0.0007	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCA112	< 0.0001	MG/KG	0.0001	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCB123	< 0.0008	MG/KG	0.0008	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCB124	< 0.0008	MG/KG	0.0008	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCPR123	< 0.0004	MG/KG	0.0004	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	VA	< 0.0005	MG/KG	0.0005	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0045	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	XYLMP	< 0.0003	MG/KG	0.0003	0.009	U	-
B178HA001-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0045	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ACE	**0.019**	MG/KG	0.0022	0.019	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0094	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZS	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.0094	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0094	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBCP	< 0.0007	MG/KG	0.0007	0.0094	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE11	**0.0018**	MG/KG	0.0003	0.0047	J	T
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0094	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ETBE	< 0.0013	MG/KG	0.0013	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0094	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	HXO2	< 0.001	MG/KG	0.001	0.019	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MEK	< 0.0015	MG/KG	0.0015	0.019	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MIBK	< 0.0009	MG/KG	0.0009	0.019	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MTLNCL	< 0.0009	MG/KG	0.0009	0.019	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	NAPH	< 0.0012	MG/KG	0.0012	0.0094	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TAME	< 0.0009	MG/KG	0.0009	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCA111	**0.0092**	MG/KG	0.0002	0.0047	-	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCB124	< 0.0008	MG/KG	0.0008	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCPR123	< 0.0004	MG/KG	0.0004	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	VA	< 0.0005	MG/KG	0.0005	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	XYLMP	< 0.0003	MG/KG	0.0003	0.0094	U	-
B178HA002-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ACE	**0.057**	MG/KG	0.0024	0.02	-	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.01	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0051	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.01	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.01	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBCME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBCP	< 0.0008	MG/KG	0.0008	0.01	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBMA	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.01	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ETBE	< 0.0014	MG/KG	0.0014	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.01	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0051	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	HXO2	< 0.0011	MG/KG	0.0011	0.02	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MEK	**0.011**	MG/KG	0.0017	0.02	J	T
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MIBK	< 0.001	MG/KG	0.001	0.02	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MTLNCL	< 0.001	MG/KG	0.001	0.02	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	NAPH	< 0.0013	MG/KG	0.0013	0.01	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TAME	< 0.001	MG/KG	0.001	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCB124	< 0.0009	MG/KG	0.0009	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	VA	< 0.0006	MG/KG	0.0006	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0051	U	-
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.01	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA002-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0051	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ACE	**0.026**	MG/KG	0.0025	0.022	-	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRBZ	< 0.0006	MG/KG	0.0006	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRCLME	< 0.0005	MG/KG	0.0005	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.011	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZN	< 0.001	MG/KG	0.001	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZS	< 0.0004	MG/KG	0.0004	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZME2	< 0.0004	MG/KG	0.0004	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLEA	< 0.0007	MG/KG	0.0007	0.011	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CLME	< 0.0007	MG/KG	0.0007	0.011	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	CYMP	< 0.0007	MG/KG	0.0007	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBCME	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBCP	< 0.0008	MG/KG	0.0008	0.011	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DBMA	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCA11	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ12	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ13	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE11	< 0.0004	MG/KG	0.0004	0.0054	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP11	< 0.0006	MG/KG	0.0006	0.011	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP13C	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA12	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA13	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ETBE	< 0.0015	MG/KG	0.0015	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.011	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	HXO2	< 0.0012	MG/KG	0.0012	0.022	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	IME	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	ISOPRE	< 0.0011	MG/KG	0.0011	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MEK	< 0.0018	MG/KG	0.0018	0.022	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MIBK	< 0.0011	MG/KG	0.0011	0.022	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	MTLNCL	< 0.0011	MG/KG	0.0011	0.022	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	NAPH	< 0.0014	MG/KG	0.0014	0.011	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TAME	< 0.0011	MG/KG	0.0011	0.0054	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents In Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TBUTMEE	< 0.0009	MG/KG	0.0009	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCB123	< 0.001	MG/KG	0.001	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCB124	< 0.0009	MG/KG	0.0009	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TCPR123	< 0.0005	MG/KG	0.0005	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TMB124	< 0.0006	MG/KG	0.0006	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	VA	< 0.0006	MG/KG	0.0006	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	VC	< 0.0004	MG/KG	0.0004	0.0054	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	XYLMP	< 0.0004	MG/KG	0.0004	0.011	U	-
B178HA003-A-S01	9/21/2000	1-1.2	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0054	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ACE	**0.024**	MG/KG	0.0022	0.019	-	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BDCME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRBZ	< 0.0005	MG/KG	0.0005	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRCLME	< 0.0004	MG/KG	0.0004	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BRME	< 0.0004	MG/KG	0.0004	0.0095	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZN	< 0.0009	MG/KG	0.0009	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZS	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BTBZT	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	BZME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CDS	< 0.0001	MG/KG	0.0001	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZME2	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLBZME4	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLEA	< 0.0006	MG/KG	0.0006	0.0095	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CLME	< 0.0006	MG/KG	0.0006	0.0095	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CTCL	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	CYMP	< 0.0006	MG/KG	0.0006	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBCME	< 0.0001	MG/KG	0.0001	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBCP	< 0.0007	MG/KG	0.0007	0.0095	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DBMA	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCA11	< 0.0001	MG/KG	0.0001	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCA12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ13	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCBZ14	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE11	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE12C	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCE12T	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP11	< 0.0005	MG/KG	0.0005	0.0095	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP13C	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCP13T	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA12	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA13	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	DCPA22	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EDB	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	EMETHACRY	< 0.0004	MG/KG	0.0004	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ETBE	< 0.0013	MG/KG	0.0013	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	FC11	< 0.0002	MG/KG	0.0002	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	FC12	< 0.0002	MG/KG	0.0002	0.0095	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	HCBU	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	HXO2	< 0.001	MG/KG	0.001	0.019	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	IME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	IPBZ	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	ISOPRE	< 0.001	MG/KG	0.001	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MEK	**0.0046**	MG/KG	0.0015	0.019	J	T
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MIBK	< 0.0009	MG/KG	0.0009	0.019	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	MTLNCL	< 0.0009	MG/KG	0.0009	0.019	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	NAPH	< 0.0012	MG/KG	0.0012	0.0095	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PBZN	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PCA	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	PCE	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	STY	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TAME	< 0.0009	MG/KG	0.0009	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TBME	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TBUTMEE	< 0.0008	MG/KG	0.0008	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TC1112	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCA111	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCA112	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCB123	< 0.0009	MG/KG	0.0009	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCB124	< 0.0008	MG/KG	0.0008	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCE	< 0.0002	MG/KG	0.0002	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCLME	< 0.0004	MG/KG	0.0004	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TCPR123	< 0.0004	MG/KG	0.0004	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TMB124	< 0.0005	MG/KG	0.0005	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	TMB135	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	VA	< 0.0005	MG/KG	0.0005	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents In Soil
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	VC	< 0.0003	MG/KG	0.0003	0.0047	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	XYLMP	< 0.0003	MG/KG	0.0003	0.0095	U	-
B178HA003-A-S03	9/21/2000	4.5-4.7	SW5035	SW8260B	XYLO	< 0.0002	MG/KG	0.0002	0.0047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	ACNP	< 0.039	MG/KG	0.039	0.35	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	ACNP	< 0.039	MG/KG	0.039	0.35	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	ACNPY	< 0.042	MG/KG	0.042	0.35	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	ACNPY	< 0.042	MG/KG	0.042	0.35	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	ANTH	< 0.0028	MG/KG	0.0028	0.12	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	ANTH	< 0.0027	MG/KG	0.0027	0.12	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.014	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	BZAA	< 0.0008	MG/KG	0.0008	0.014	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZAP	< 0.0018	MG/KG	0.0018	0.018	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	BZAP	< 0.0018	MG/KG	0.0018	0.018	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZBF	< 0.0017	MG/KG	0.0017	0.022	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	BZBF	< 0.0017	MG/KG	0.0017	0.022	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZGHIP	< 0.0017	MG/KG	0.0017	0.018	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	BZGHIP	< 0.0017	MG/KG	0.0017	0.018	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZKF	< 0.0012	MG/KG	0.0012	0.018	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	BZKF	< 0.0012	MG/KG	0.0012	0.018	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.035	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.035	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.035	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.035	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	FL	< 0.0075	MG/KG	0.0075	0.035	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	FL	< 0.0074	MG/KG	0.0074	0.035	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	FLA	< 0.0036	MG/KG	0.0036	0.044	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	FLA	< 0.0022	MG/KG	0.0022	0.044	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	INP123	< 0.0006	MG/KG	0.0006	0.035	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	INP123	< 0.0006	MG/KG	0.0006	0.035	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	NAPH	< 0.025	MG/KG	0.025	0.35	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	NAPH	< 0.025	MG/KG	0.025	0.35	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	PHAN	**0.029**	MG/KG	0.0039	0.11	J	PT
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	PHAN	< 0.0018	MG/KG	0.0018	0.1	U	8
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	PYR	< 0.0022	MG/KG	0.0022	0.053	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8310	PYR	< 0.0022	MG/KG	0.0022	0.052	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	ACNP	< 0.039	MG/KG	0.039	0.35	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	ACNPY	< 0.042	MG/KG	0.042	0.35	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	ANTH	< 0.0027	MG/KG	0.0027	0.12	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZAA	< 0.0008	MG/KG	0.0008	0.014	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZAP	< 0.0018	MG/KG	0.0018	0.018	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZBF	< 0.0017	MG/KG	0.0017	0.022	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZGHIP	< 0.0054	MG/KG	0.0054	0.018	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	BZKF	< 0.0009	MG/KG	0.0009	0.018	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.035	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.035	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	FL	< 0.0074	MG/KG	0.0074	0.035	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	FLA	< 0.0036	MG/KG	0.0036	0.044	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	INP123	< 0.0006	MG/KG	0.0006	0.035	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	NAPH	< 0.025	MG/KG	0.025	0.35	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	PHAN	**0.061**	MG/KG	0.0018	0.1	J	8T
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8310	PYR	< 0.0022	MG/KG	0.0022	0.052	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	ACNP	< 0.041	MG/KG	0.041	0.37	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	ACNPY	< 0.045	MG/KG	0.045	0.37	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	ANTH	< 0.0029	MG/KG	0.0029	0.13	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.015	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	BZAP	< 0.0019	MG/KG	0.0019	0.019	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	BZBF	< 0.0018	MG/KG	0.0018	0.024	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	BZGHIP	**0.0032**	MG/KG	0.0018	0.019	NJ	T
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	BZKF	< 0.0012	MG/KG	0.0012	0.019	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.037	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	DBAHA	< 0.0015	MG/KG	0.0015	0.037	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	FL	< 0.008	MG/KG	0.008	0.037	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	FLA	< 0.0024	MG/KG	0.0024	0.047	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	INP123	**0.0023**	MG/KG	0.0007	0.037	NJ	T
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	NAPH	< 0.027	MG/KG	0.027	0.37	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	PHAN	< 0.0019	MG/KG	0.0019	0.11	U	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8310	PYR	< 0.0024	MG/KG	0.0024	0.056	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	ACNP	< 0.042	MG/KG	0.042	0.38	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	ACNPY	< 0.046	MG/KG	0.046	0.38	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	ANTH	< 0.003	MG/KG	0.003	0.13	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.015	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	BZAP	< 0.0019	MG/KG	0.0019	0.019	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	BZBF	< 0.0018	MG/KG	0.0018	0.024	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	BZGHIP	< 0.0018	MG/KG	0.0018	0.019	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	BZKF	< 0.0013	MG/KG	0.0013	0.019	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	CHRYSENE	< 0.0014	MG/KG	0.0014	0.038	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	DBAHA	< 0.0015	MG/KG	0.0015	0.038	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	FL	< 0.0081	MG/KG	0.0081	0.038	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	FLA	< 0.0024	MG/KG	0.0024	0.048	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	INP123	< 0.0007	MG/KG	0.0007	0.038	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	NAPH	< 0.027	MG/KG	0.027	0.38	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	PHAN	< 0.0019	MG/KG	0.0019	0.11	U	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8310	PYR	< 0.0024	MG/KG	0.0024	0.057	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	ACNP	< 0.043	MG/KG	0.043	0.38	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	ACNP	< 0.042	MG/KG	0.042	0.38	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	ACNPY	< 0.046	MG/KG	0.046	0.38	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	ACNPY	< 0.046	MG/KG	0.046	0.38	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	ANTH	< 0.003	MG/KG	0.003	0.13	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	ANTH	< 0.003	MG/KG	0.003	0.13	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.015	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.015	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	BZAP	< 0.002	MG/KG	0.002	0.02	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	BZAP	< 0.0019	MG/KG	0.0019	0.019	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	BZBF	< 0.0019	MG/KG	0.0019	0.024	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	BZBF	< 0.0018	MG/KG	0.0018	0.024	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	BZGHIP	< 0.0019	MG/KG	0.0019	0.02	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	BZGHIP	< 0.0018	MG/KG	0.0018	0.019	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	BZKF	< 0.0013	MG/KG	0.0013	0.02	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	BZKF	< 0.0013	MG/KG	0.0013	0.019	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	CHRYSENE	< 0.0014	MG/KG	0.0014	0.038	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	CHRYSENE	< 0.0014	MG/KG	0.0014	0.038	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	DBAHA	< 0.0015	MG/KG	0.0015	0.038	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	DBAHA	< 0.0015	MG/KG	0.0015	0.038	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	FL	< 0.0082	MG/KG	0.0082	0.038	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	FL	< 0.0081	MG/KG	0.0081	0.038	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	FLA	< 0.0024	MG/KG	0.0024	0.049	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	FLA	< 0.0024	MG/KG	0.0024	0.048	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	INP123	< 0.0007	MG/KG	0.0007	0.038	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	INP123	< 0.0007	MG/KG	0.0007	0.038	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	NAPH	< 0.028	MG/KG	0.028	0.38	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	NAPH	< 0.027	MG/KG	0.027	0.38	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	PHAN	< 0.002	MG/KG	0.002	0.12	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	PHAN	< 0.0019	MG/KG	0.0019	0.11	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8310	PYR	< 0.0024	MG/KG	0.0024	0.058	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8310	PYR	< 0.0024	MG/KG	0.0024	0.057	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	ACNP	< 0.044	MG/KG	0.044	0.39	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	ACNPY	< 0.047	MG/KG	0.047	0.39	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	ANTH	< 0.0031	MG/KG	0.0031	0.14	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	BZAA	< 0.0048	MG/KG	0.0048	0.015	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	BZAP	< 0.002	MG/KG	0.002	0.02	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	BZBF	< 0.0015	MG/KG	0.0015	0.025	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	BZGHIP	< 0.0061	MG/KG	0.0061	0.02	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	BZKF	< 0.0011	MG/KG	0.0011	0.02	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	CHRYSENE	< 0.0014	MG/KG	0.0014	0.039	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	DBAHA	< 0.0015	MG/KG	0.0015	0.039	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	FL	**0.023**	MG/KG	0.0084	0.039	J+	3HT
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	FLA	< 0.0025	MG/KG	0.0025	0.05	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	INP123	**0.019**	MG/KG	0.0007	0.039	J	3HPT
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	NAPH	< 0.028	MG/KG	0.028	0.39	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	PHAN	< 0.0044	MG/KG	0.0044	0.12	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8310	PYR	< 0.0025	MG/KG	0.0025	0.059	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	ACNP	< 0.04	MG/KG	0.04	0.36	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	ACNP	< 0.04	MG/KG	0.04	0.36	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	ACNPY	< 0.043	MG/KG	0.043	0.36	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	ACNPY	< 0.043	MG/KG	0.043	0.36	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	ANTH	< 0.0028	MG/KG	0.0028	0.13	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	ANTH	< 0.0028	MG/KG	0.0028	0.13	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	BZAA	< 0.0045	MG/KG	0.0045	0.014	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.014	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	BZAP	**0.0084**	MG/KG	0.0018	0.018	J+	3HT
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	BZAP	**0.0078**	MG/KG	0.0018	0.018	J+	3HT
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	BZBF	< 0.0017	MG/KG	0.0017	0.023	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	BZBF	< 0.0017	MG/KG	0.0017	0.023	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	BZGHIP	**0.0052**	MG/KG	0.0017	0.018	NJ+	3HT
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	BZGHIP	< 0.0017	MG/KG	0.0017	0.018	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	BZKF	**0.04**	MG/KG	0.0012	0.018	J	3HP
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	BZKF	**0.045**	MG/KG	0.0012	0.018	J	3HP
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.036	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.036	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.036	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.036	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	FL	**0.11**	MG/KG	0.0077	0.036	J+	3H
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	FL	**0.13**	MG/KG	0.0077	0.036	J+	3H
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	FLA	< 0.0023	MG/KG	0.0023	0.046	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	FLA	< 0.0023	MG/KG	0.0023	0.046	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	INP123	**0.0062**	MG/KG	0.0007	0.036	J+	3HT
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	INP123	< 0.0007	MG/KG	0.0007	0.036	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	NAPH	< 0.026	MG/KG	0.026	0.36	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	NAPH	< 0.026	MG/KG	0.026	0.36	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	PHAN	< 0.004	MG/KG	0.004	0.11	U	8
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	PHAN	**0.34**	MG/KG	0.02	0.54	J	3H8PT
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8310	PYR	< 0.0023	MG/KG	0.0023	0.054	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8310	PYR	**0.027**	MG/KG	0.0023	0.054	J+	3HT
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	ACNP	< 0.039	MG/KG	0.039	0.35	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	ACNPY	< 0.042	MG/KG	0.042	0.35	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	ANTH	< 0.0027	MG/KG	0.0027	0.12	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZAA	< 0.0008	MG/KG	0.0008	0.014	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZAP	< 0.0018	MG/KG	0.0018	0.018	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZBF	**0.044**	MG/KG	0.0017	0.022	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZGHIP	< 0.0017	MG/KG	0.0017	0.018	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZKF	< 0.0011	MG/KG	0.0011	0.018	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.034	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.034	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	FL	< 0.0066	MG/KG	0.0066	0.034	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	FLA	< 0.0022	MG/KG	0.0022	0.044	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	INP123	< 0.0006	MG/KG	0.0006	0.034	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	NAPH	**0.046**	MG/KG	0.025	0.35	J	T
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	PHAN	**0.27**	MG/KG	0.0039	0.1	J	P
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	PYR	< 0.0022	MG/KG	0.0022	0.052	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	ACNP	< 0.042	MG/KG	0.042	0.38	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	ACNPY	< 0.045	MG/KG	0.045	0.38	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	ANTH	< 0.0029	MG/KG	0.0029	0.13	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.015	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZAP	< 0.0019	MG/KG	0.0019	0.019	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZBF	< 0.0018	MG/KG	0.0018	0.024	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZGHIP	< 0.0018	MG/KG	0.0018	0.019	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZKF	< 0.0012	MG/KG	0.0012	0.019	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	CHRYSENE	< 0.0014	MG/KG	0.0014	0.037	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	DBAHA	< 0.0015	MG/KG	0.0015	0.037	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	FL	< 0.008	MG/KG	0.008	0.037	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	FLA	< 0.0024	MG/KG	0.0024	0.048	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	INP123	< 0.0007	MG/KG	0.0007	0.037	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	NAPH	**0.029**	MG/KG	0.027	0.38	NJ	T
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	PHAN	**0.13**	MG/KG	0.0042	0.11	J	PT
B178HA001-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	PYR	**0.025**	MG/KG	0.0024	0.057	J	PT
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	ACNP	< 0.039	MG/KG	0.039	0.35	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	ACNPY	< 0.042	MG/KG	0.042	0.35	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	ANTH	< 0.0027	MG/KG	0.0027	0.12	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZAA	< 0.0008	MG/KG	0.0008	0.014	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZAP	< 0.0018	MG/KG	0.0018	0.018	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZBF	< 0.0017	MG/KG	0.0017	0.022	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZGHIP	< 0.0017	MG/KG	0.0017	0.018	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	BZKF	< 0.0012	MG/KG	0.0012	0.018	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.035	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.035	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	FL	< 0.0075	MG/KG	0.0075	0.035	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	FLA	< 0.0022	MG/KG	0.0022	0.044	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	INP123	< 0.0006	MG/KG	0.0006	0.035	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	NAPH	< 0.025	MG/KG	0.025	0.35	U	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	PHAN	**0.084**	MG/KG	0.0039	0.11	J	PT
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8310	PYR	< 0.0022	MG/KG	0.0022	0.053	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	ACNP	< 0.042	MG/KG	0.042	0.38	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	ACNPY	< 0.046	MG/KG	0.046	0.38	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	ANTH	< 0.003	MG/KG	0.003	0.13	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.015	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZAP	< 0.002	MG/KG	0.002	0.02	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZBF	< 0.0018	MG/KG	0.0018	0.024	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZGHIP	< 0.0018	MG/KG	0.0018	0.02	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	BZKF	**0.0012**	MG/KG	0.001	0.02	NJ	T
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	CHRYSENE	< 0.0014	MG/KG	0.0014	0.038	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	DBAHA	< 0.0015	MG/KG	0.0015	0.038	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	FL	< 0.0082	MG/KG	0.0082	0.038	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	FLA	< 0.0039	MG/KG	0.0039	0.048	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	INP123	< 0.0033	MG/KG	0.0033	0.038	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	NAPH	< 0.028	MG/KG	0.028	0.38	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	PHAN	< 0.0042	MG/KG	0.0042	0.11	U	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8310	PYR	< 0.0024	MG/KG	0.0024	0.057	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	ACNP	< 0.04	MG/KG	0.04	0.36	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	ACNPY	< 0.044	MG/KG	0.044	0.36	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	ANTH	< 0.0028	MG/KG	0.0028	0.13	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.014	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	BZAP	< 0.0019	MG/KG	0.0019	0.019	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	BZBF	< 0.0017	MG/KG	0.0017	0.023	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	BZGHIP	< 0.0017	MG/KG	0.0017	0.019	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	BZKF	< 0.001	MG/KG	0.001	0.019	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.036	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.036	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	FL	< 0.0077	MG/KG	0.0077	0.036	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	FLA	< 0.0023	MG/KG	0.0023	0.046	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	INP123	< 0.0007	MG/KG	0.0007	0.036	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	NAPH	< 0.037	MG/KG	0.037	0.36	U	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	PHAN	**0.17**	MG/KG	0.004	0.11	J	PT
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8310	PYR	< 0.0023	MG/KG	0.0023	0.054	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	ACNP	< 0.041	MG/KG	0.041	0.37	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	ACNPY	< 0.044	MG/KG	0.044	0.37	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	ANTH	< 0.0029	MG/KG	0.0029	0.13	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	BZAA	< 0.0009	MG/KG	0.0009	0.014	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	BZAP	< 0.0019	MG/KG	0.0019	0.019	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	BZBF	< 0.0018	MG/KG	0.0018	0.023	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	BZGHIP	< 0.0018	MG/KG	0.0018	0.019	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	BZKF	< 0.0012	MG/KG	0.0012	0.019	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	CHRYSENE	< 0.0013	MG/KG	0.0013	0.037	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	DBAHA	< 0.0014	MG/KG	0.0014	0.037	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	FL	< 0.0079	MG/KG	0.0079	0.037	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	FLA	< 0.0038	MG/KG	0.0038	0.047	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 4 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	INP123	< 0.0007	MG/KG	0.0007	0.037	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	NAPH	< 0.038	MG/KG	0.038	0.37	U	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	PHAN	**0.08**	MG/KG	0.0019	0.11	J	T
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8310	PYR	< 0.0025	MG/KG	0.0025	0.056	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 6 - TPH:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3550B	SW8015B	DRO	**160**	MG/KG	1.8	4.8	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3550B	SW8015B	RRO	**36**	MG/KG	12	48	J	T
B026TR001-A-S04	9/20/2000	8.5-9	SW3550B	SW8015B	DRO	**50**	MG/KG	1.8	4.8	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3550B	SW8015B	RRO	**12**	MG/KG	12	48	U	Y
B028TR001-A-S02	9/27/2000	4.5-5	SW3545	SW8015B	DRO	< 1.7	MG/KG	1.7	4.6	U	-
B028TR001-A-S02	9/27/2000	4.5-5	SW3545	SW8015B	RRO	< 12	MG/KG	12	46	U	-
B054HA001-A-S01	9/21/2000	0-0.2	SW5030B	SW8015B	GRO	**1.3**	MG/KG	0.202	1.01	-	-
B054HA001-B-S01*	9/21/2000	0-0.2	SW5030B	SW8015B	GRO	< 0.91	MG/KG	0.91	1.1188	U	2
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8015B	DRO	**32**	MG/KG	1.7	4.4	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8015B	DRO	**27**	MG/KG	1.6	4.4	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3550B	SW8015B	RRO	**31**	MG/KG	11	44	J	T
B054HA001-B-S02*	9/21/2000	0-0.5	SW3550B	SW8015B	RRO	**16**	MG/KG	11	44	J	T
B054HA002-A-S01	9/21/2000	0-0.2	SW5030B	SW8015B	GRO	< 0.74	MG/KG	0.74	1.1473	U	2
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8015B	DRO	**300**	MG/KG	1.6	4.4	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3550B	SW8015B	RRO	**350**	MG/KG	11	44	-	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8015B	DRO	**32**	MG/KG	1.7	4.7	-	-
B118ATR001-A-S02	9/19/2000	1.5-2	SW3550B	SW8015B	RRO	**100**	MG/KG	12	47	-	-
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8015B	DRO	**3.9**	MG/KG	1.8	4.8	J	T
B118ATR004-A-S02	9/20/2000	3.5-4	SW3550B	SW8015B	RRO	< 12	MG/KG	12	48	U	-
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8015B	DRO	**2**	MG/KG	1.8	4.9	J	T
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8015B	DRO	**3.3**	MG/KG	1.8	4.8	J	T
B118ATR005-A-S04	9/20/2000	2.5-3	SW3550B	SW8015B	RRO	< 12	MG/KG	12	49	U	-
B118ATR005-A-S02*	9/20/2000	2.5-3	SW3550B	SW8015B	RRO	< 12	MG/KG	12	48	U	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8015B	DRO	**510**	MG/KG	1.8	5	-	-
B118ATR005-A-S06	9/20/2000	6.5-7	SW3550B	SW8015B	RRO	**370**	MG/KG	13	50	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8015B	DRO	**320**	MG/KG	1.7	4.6	-	8
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8015B	DRO	**160**	MG/KG	1.7	4.6	-	8
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3550B	SW8015B	RRO	**64**	MG/KG	12	46	N	U

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 6 - TPH:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3550B	SW8015B	RRO	< 12	MG/KG	12	46	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3545	SW8015B	DRO	**12**	MG/KG	1.6	4.4	J-	1
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3545	SW8015B	RRO	**27**	MG/KG	11	44	J-	1T
B178HA001-A-S04	9/21/2000	4.7-5	SW3545	SW8015B	DRO	**110**	MG/KG	1.8	4.8	J-	1
B178HA001-A-S04	9/21/2000	4.7-5	SW3545	SW8015B	RRO	**360**	MG/KG	12	48	J-	1
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8015B	DRO	**25**	MG/KG	1.6	4.4	-	-
B178HA002-A-S02	9/21/2000	1.2-1.5	SW3550B	SW8015B	RRO	**71**	MG/KG	11	44	-	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8015B	DRO	**140**	MG/KG	1.8	4.8	-	-
B178HA002-A-S04	9/21/2000	4.7-5	SW3550B	SW8015B	RRO	**600**	MG/KG	12	48	-	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8015B	DRO	**36**	MG/KG	1.7	4.6	-	-
B178HA003-A-S02	9/21/2000	1-1.5	SW3550B	SW8015B	RRO	**110**	MG/KG	12	46	-	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8015B	DRO	**72**	MG/KG	1.7	4.7	-	-
B178HA003-A-S04	9/21/2000	4.5-5	SW3550B	SW8015B	RRO	**290**	MG/KG	12	47	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	AG	< 0.398	MG/KG	0.398	3.81	U	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	AL	**14500**	MG/KG	52.3	382	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW7060A	AS	**22.7**	MG/KG	1.27	3.81	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	BA	**101**	MG/KG	0.0336	0.381	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	BE	**0.825**	MG/KG	0.0106	0.0952	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	CA	**3010**	MG/KG	4.15	38.1	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	CD	**0.603**	MG/KG	0.0846	0.952	J	T
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	CO	**7.73**	MG/KG	0.302	1.9	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	CR	**54.2**	MG/KG	0.369	1.9	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	CU	**17.5**	MG/KG	0.641	2.86	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	FE	**51100**	MG/KG	187	1430	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	TOTAL	SW7471A	HG	< 0.0183	MG/KG	0.0183	0.0949	U	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	K	**1850**	MG/KG	102	477	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	MG	**5420**	MG/KG	4.01	38.1	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	MN	**554**	MG/KG	1.13	9.53	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	MO	< 3.94	MG/KG	3.94	5.71	U	Y
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	NA	**531**	MG/KG	18.5	95.2	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	NI	**30**	MG/KG	0.773	7.62	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	PB	**6.15**	MG/KG	0.162	0.952	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	SB	< 7.13	MG/KG	7.13	24.5	U	Y
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW7740	SE	**0.417**	MG/KG	0.117	0.475	J	T
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	SN	**4.27**	MG/KG	1.89	9.52	J	T
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW7841	TL	**0.838**	MG/KG	0.0731	0.286	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	V	**42.4**	MG/KG	0.344	1.91	-	-
B026TR001-A-S02	9/20/2000	6.3-6.8	SW3050B	SW6010B	ZN	**108**	MG/KG	0.345	1.91	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	AG	< 0.394	MG/KG	0.394	3.77	U	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	AL	**12600**	MG/KG	130	946	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW7060A	AS	**16.6**	MG/KG	1.26	3.77	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	BA	**125**	MG/KG	0.0333	0.377	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	BE	**0.622**	MG/KG	0.0105	0.0943	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	CA	**3580**	MG/KG	4.11	37.7	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	CD	**0.222**	MG/KG	0.0838	0.943	J	T
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	CO	**2.66**	MG/KG	0.299	1.88	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	CR	**47.6**	MG/KG	0.366	1.88	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	CU	**12.9**	MG/KG	0.635	2.83	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	FE	**20300**	MG/KG	92.9	708	-	-
B026TR001-A-S04	9/20/2000	8.5-9	TOTAL	SW7471A	HG	< 0.0181	MG/KG	0.0181	0.094	U	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	K	**1640**	MG/KG	101	472	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	MG	**3460**	MG/KG	3.98	37.7	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	MN	**71.8**	MG/KG	0.0562	0.472	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	MO	< 1.81	MG/KG	1.81	5.66	U	Y
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	NA	**535**	MG/KG	18.3	94.3	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	NI	**10.1**	MG/KG	0.766	7.55	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	PB	**5.26**	MG/KG	0.161	0.943	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	SB	< 3.25	MG/KG	3.25	9.4	U	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW7740	SE	**0.816**	MG/KG	0.116	0.471	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	SN	**5.19**	MG/KG	1.87	9.43	J	T
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW7841	TL	**0.625**	MG/KG	0.0725	0.283	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	V	**34.2**	MG/KG	0.341	1.89	-	-
B026TR001-A-S04	9/20/2000	8.5-9	SW3050B	SW6010B	ZN	**48.9**	MG/KG	0.342	1.89	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	AG	< 0.368	MG/KG	0.368	3.52	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	AG	**0.382**	MG/KG	0.364	3.49	J	T
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	AL	**6350**	MG/KG	48.5	353	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	AL	**5680**	MG/KG	24	175	-	8
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW7060A	AS	**3.61**	MG/KG	0.587	1.76	R	4L
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW7060A	AS	**2.41**	MG/KG	0.581	1.74	R	4L

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	BA	**43.8**	MG/KG	0.0311	0.352	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	BA	**23**	MG/KG	0.0308	0.349	-	8
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	BE	< 0.336	MG/KG	0.336	0.365	U	Y
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	BE	< 0.26	MG/KG	0.26	0.365	U	Y
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CA	**1960**	MG/KG	3.84	35.2	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	CA	**1160**	MG/KG	3.8	34.9	-	8
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CD	**0.23**	MG/KG	0.0783	0.881	J	T
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	CD	**0.141**	MG/KG	0.0775	0.872	J	T
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CO	**6.35**	MG/KG	0.279	1.76	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	CO	**3.9**	MG/KG	0.276	1.74	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CR	**13.9**	MG/KG	0.342	1.76	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	CR	**12.7**	MG/KG	0.338	1.74	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CU	**8.72**	MG/KG	0.594	2.65	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	CU	**5.53**	MG/KG	0.587	2.62	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	FE	**12200**	MG/KG	34.7	265	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	FE	**9260**	MG/KG	34.3	262	-	-
B054HA001-A-S02	9/21/2000	0-0.5	TOTAL	SW7471A	HG	**0.097**	MG/KG	0.0169	0.0878	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	TOTAL	SW7471A	HG	< 0.0168	MG/KG	0.0168	0.0869	U	8
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	K	**1040**	MG/KG	94.3	441	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	K	**658**	MG/KG	93.3	437	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	MG	**2800**	MG/KG	3.71	35.2	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	MG	**2210**	MG/KG	3.68	34.9	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	MN	**105**	MG/KG	0.0525	0.441	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	MN	**62.5**	MG/KG	0.0519	0.437	-	8
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	MO	< 0.737	MG/KG	0.737	5.29	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	MO	< 0.729	MG/KG	0.729	5.24	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	NA	**98.4**	MG/KG	17.1	88.1	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	NA	**135**	MG/KG	17	87.2	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	NI	**16.1**	MG/KG	0.715	7.06	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	NI	**11.2**	MG/KG	0.708	6.98	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	PB	**7.17**	MG/KG	0.15	0.881	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	PB	**3.7**	MG/KG	0.149	0.872	-	8
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	SB	< 3.04	MG/KG	3.04	8.78	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	SB	< 3.01	MG/KG	3.01	8.69	U	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW7740	SE	< 0.108	MG/KG	0.108	0.44	U	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW7740	SE	**0.126**	MG/KG	0.107	0.436	J	T
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	SN	**1.77**	MG/KG	1.75	8.81	J	T
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	SN	**4.73**	MG/KG	1.73	8.72	J	T
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW7841	TL	**0.366**	MG/KG	0.0677	0.265	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW7841	TL	**0.266**	MG/KG	0.067	0.262	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	V	**23**	MG/KG	0.319	1.77	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	V	**18.8**	MG/KG	0.315	1.75	-	-
B054HA001-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	ZN	**34.5**	MG/KG	0.32	1.77	-	-
B054HA001-B-S02*	9/21/2000	0-0.5	SW3050B	SW6010B	ZN	**26.5**	MG/KG	0.316	1.75	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	AG	**0.397**	MG/KG	0.364	3.49	J	T
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	AL	**11100**	MG/KG	120	874	-	8
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW7060A	AS	**5.1**	MG/KG	0.581	1.74	R	4L
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	BA	**77.4**	MG/KG	0.0308	0.349	-	8
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	BE	**0.416**	MG/KG	0.0097	0.0872	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CA	**3850**	MG/KG	3.8	34.9	-	8
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CD	**30**	MG/KG	0.0775	0.872	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CO	**9.64**	MG/KG	0.276	1.74	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CR	**41**	MG/KG	0.338	1.74	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	CU	**18.1**	MG/KG	0.587	2.62	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	FE	**25400**	MG/KG	85.9	654	-	-
B054HA002-A-S02	9/21/2000	0-0.5	TOTAL	SW7471A	HG	**0.4**	MG/KG	0.0168	0.0869	-	8

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	K	**1320**	MG/KG	93.3	437	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	MG	**4630**	MG/KG	3.68	34.9	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	MN	**374**	MG/KG	0.26	2.18	-	8
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	MO	< 0.729	MG/KG	0.729	5.24	U	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	NA	**171**	MG/KG	17	87.2	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	NI	**48.1**	MG/KG	0.708	6.98	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	PB	**26.1**	MG/KG	0.149	0.872	-	8
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	SB	< 5.05	MG/KG	5.05	24.5	U	Y
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW7740	SE	**0.173**	MG/KG	0.107	0.436	J	T
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	SN	**5.55**	MG/KG	1.73	8.72	J	T
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW7841	TL	**0.485**	MG/KG	0.067	0.262	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	V	**35.7**	MG/KG	0.315	1.75	-	-
B054HA002-A-S02	9/21/2000	0-0.5	SW3050B	SW6010B	ZN	**62.9**	MG/KG	0.316	1.75	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	AG	< 0.378	MG/KG	0.378	3.62	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	AG	< 0.377	MG/KG	0.377	3.61	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	AL	**17300**	MG/KG	124	908	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	AL	**16600**	MG/KG	124	905	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW7060A	AS	**10.6**	MG/KG	1.21	3.62	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW7060A	AS	**11**	MG/KG	1.2	3.61	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	BA	**67.6**	MG/KG	0.032	0.362	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	BA	**73.6**	MG/KG	0.0319	0.361	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	BE	**0.663**	MG/KG	0.0101	0.0905	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	BE	**0.652**	MG/KG	0.0101	0.0902	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	CA	**3010**	MG/KG	3.95	36.2	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	CA	**2970**	MG/KG	3.93	36.1	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	CD	**0.145**	MG/KG	0.0804	0.905	J	T
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	CD	**0.109**	MG/KG	0.0802	0.902	J	T
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	CO	**7.73**	MG/KG	0.287	1.8	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	CO	**6.9**	MG/KG	0.286	1.8	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	CR	**36.6**	MG/KG	0.351	1.8	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	CR	**36.8**	MG/KG	0.35	1.8	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	CU	**13.6**	MG/KG	0.61	2.72	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	CU	**13.7**	MG/KG	0.608	2.71	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	FE	**31000**	MG/KG	89.1	679	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	FE	**36800**	MG/KG	88.8	677	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	TOTAL	SW7471A	HG	< 0.0174	MG/KG	0.0174	0.0902	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	TOTAL	SW7471A	HG	< 0.0173	MG/KG	0.0173	0.0899	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	K	**2920**	MG/KG	96.8	453	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	K	**2810**	MG/KG	96.5	452	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	MG	**7500**	MG/KG	3.82	36.2	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	MG	**7280**	MG/KG	3.8	36.1	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	MN	**249**	MG/KG	0.27	2.27	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	MN	**237**	MG/KG	0.269	2.26	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	MO	< 0.757	MG/KG	0.757	5.43	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	MO	< 0.754	MG/KG	0.754	5.42	U	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	NA	**211**	MG/KG	17.6	90.5	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	NA	**206**	MG/KG	17.6	90.2	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	NI	**19.3**	MG/KG	0.735	7.25	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	NI	**19.8**	MG/KG	0.732	7.23	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	PB	**7.81**	MG/KG	0.154	0.905	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	PB	**7.36**	MG/KG	0.154	0.902	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	SB	< 3.12	MG/KG	3.12	9.02	U	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	SB	< 5.36	MG/KG	5.36	24.5	U	Y
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW7740	SE	**3.25**	MG/KG	0.111	0.452	-	8
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW7740	SE	**1.36**	MG/KG	0.111	0.451	-	8
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	SN	**4.15**	MG/KG	1.79	9.05	J	T

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	SN	**3.53**	MG/KG	1.79	9.02	J	T
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW7841	TL	**0.697**	MG/KG	0.0696	0.272	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW7841	TL	**0.682**	MG/KG	0.0693	0.271	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	V	**53.8**	MG/KG	0.327	1.82	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	V	**52.1**	MG/KG	0.326	1.81	-	-
B152HA001-A-S02	9/21/2000	4.3-4.8	SW3050B	SW6010B	ZN	**62.4**	MG/KG	0.328	1.82	-	-
B152HA001-B-S02*	9/21/2000	4.8-5.3	SW3050B	SW6010B	ZN	**61.3**	MG/KG	0.327	1.81	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	AG	< 0.363	MG/KG	0.363	3.47	U	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	AL	**30800**	MG/KG	119	871	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW7060A	AS	**9.44**	MG/KG	1.16	3.47	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	BA	**189**	MG/KG	0.307	3.47	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	BE	**0.774**	MG/KG	0.0097	0.0869	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	CA	**18400**	MG/KG	37.9	347	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	CD	**0.174**	MG/KG	0.0772	0.869	J	T
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	CO	**30.8**	MG/KG	0.275	1.73	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	CR	**356**	MG/KG	0.337	1.73	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	CU	**37.4**	MG/KG	0.585	2.61	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	FE	**44800**	MG/KG	171	1300	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	TOTAL	SW7471A	HG	**0.158**	MG/KG	0.0167	0.0865	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	K	**1650**	MG/KG	92.9	435	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	MG	**58800**	MG/KG	36.6	347	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	MN	**743**	MG/KG	0.517	4.35	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	MO	< 1.47	MG/KG	1.47	5.21	U	Y
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	NA	**96.9**	MG/KG	16.9	86.9	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	NI	**513**	MG/KG	7.05	69.6	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	PB	**7.81**	MG/KG	0.148	0.869	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	SB	< 11.5	MG/KG	11.5	24.5	U	Y
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW7740	SE	**0.249**	MG/KG	0.106	0.434	J	T

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	SN	**5.5**	MG/KG	1.72	8.69	J	T
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW7841	TL	**0.637**	MG/KG	0.0667	0.261	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	V	**60.4**	MG/KG	0.314	1.74	-	-
B178HA001-A-S02	9/21/2000	1.2-1.5	SW3050B	SW6010B	ZN	**67.2**	MG/KG	0.315	1.74	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	AG	< 0.394	MG/KG	0.394	3.77	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	AL	**18000**	MG/KG	130	945	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW7060A	AS	**5.67**	MG/KG	1.26	3.77	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	BA	**137**	MG/KG	0.0333	0.377	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	BE	**0.562**	MG/KG	0.0105	0.0942	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	CA	**8910**	MG/KG	4.11	37.7	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	CD	**0.442**	MG/KG	0.0837	0.942	J	T
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	CO	**18.1**	MG/KG	0.299	1.88	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	CR	**126**	MG/KG	0.365	1.88	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	CU	**26.4**	MG/KG	0.635	2.83	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	FE	**28000**	MG/KG	92.8	707	-	-
B178HA001-A-S04	9/21/2000	4.7-5	TOTAL	SW7471A	HG	**0.142**	MG/KG	0.0181	0.0939	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	K	**1400**	MG/KG	101	472	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	MG	**22800**	MG/KG	39.7	377	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	MN	**554**	MG/KG	0.561	4.72	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	MO	< 0.787	MG/KG	0.787	5.66	U	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	NA	**152**	MG/KG	18.3	94.2	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	NI	**175**	MG/KG	0.765	7.55	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	PB	**44.2**	MG/KG	0.161	0.942	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	SB	< 4.42	MG/KG	4.42	24.5	U	Y
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW7740	SE	**0.327**	MG/KG	0.115	0.471	J	T
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	SN	**3.28**	MG/KG	1.87	9.42	J	T
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW7841	TL	**0.6**	MG/KG	0.0724	0.283	-	-
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	V	**44.2**	MG/KG	0.34	1.89	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix F, continued

Analytical Results for All Constituents in Soil
Area I Fuel Only Facilities Field Site Investigation

Section 7 - Metals:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte**	Result	Units	MDL	PQL	QC Flag	Reason Code
B178HA001-A-S04	9/21/2000	4.7-5	SW3050B	SW6010B	ZN	**137**	MG/KG	0.342	1.89	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

APPENDIX G

ANALYTICAL RESULTS FOR ALL CONSTITUENTS IN GROUNDWATER FROM THE FUEL ONLY INVESTIGATION

Appendix G

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	ACE	< 2.7	UG/L	2.7	10	UJ	S
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BDCME	< 0.17	UG/L	0.17	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BRBZ	< 0.13	UG/L	0.13	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BRCLME	< 0.22	UG/L	0.22	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BRME	< 0.18	UG/L	0.18	2	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BTBZN	< 0.14	UG/L	0.14	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BTBZS	< 0.14	UG/L	0.14	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BTBZT	< 0.13	UG/L	0.13	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BZ	< 0.15	UG/L	0.15	0.5	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	BZME	< 0.14	UG/L	0.14	0.5	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	CDS	< 0.11	UG/L	0.11	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	CLBZ	< 0.14	UG/L	0.14	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	CLBZME2	< 0.14	UG/L	0.14	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	CLBZME4	< 0.19	UG/L	0.19	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	CLEA	< 0.43	UG/L	0.43	2	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	CLME	< 0.24	UG/L	0.24	2	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	CTCL	< 0.091	UG/L	0.091	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	CYMP	< 0.12	UG/L	0.12	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DBCME	< 0.14	UG/L	0.14	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DBCP	< 0.71	UG/L	0.71	2	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DBMA	< 0.21	UG/L	0.21	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCA11	< 0.16	UG/L	0.16	3	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCA12	< 0.21	UG/L	0.21	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCBZ12	< 0.2	UG/L	0.2	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCBZ13	< 0.14	UG/L	0.14	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCBZ14	< 0.15	UG/L	0.15	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCE11	< 0.1	UG/L	0.1	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCE12C	**24**	UG/L	0.16	1	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCE12T	**1.2**	UG/L	0.18	1	-	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCP11	< 0.2	UG/L	0.2	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCP13C	< 0.21	UG/L	0.21	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCP13T	< 0.23	UG/L	0.23	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCPA12	< 0.14	UG/L	0.14	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCPA13	< 0.23	UG/L	0.23	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	DCPA22	< 0.12	UG/L	0.12	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	EBZ	< 0.12	UG/L	0.12	0.5	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	EDB	< 0.19	UG/L	0.19	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	EMETHACRY	< 0.22	UG/L	0.22	5	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	ETBE	< 0.49	UG/L	0.49	5	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	FC11	< 0.11	UG/L	0.11	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	FC12	< 0.12	UG/L	0.12	2	UJ	S
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	HCBU	< 0.23	UG/L	0.23	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	HXO2	< 1	UG/L	1	10	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	IME	< 0.13	UG/L	0.13	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	IPBZ	< 0.12	UG/L	0.12	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	ISOPRE	**0.42**	UG/L	0.34	5	J	T
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	MEK	< 2.1	UG/L	2.1	10	UJ	S
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	MIBK	< 1.2	UG/L	1.2	10	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	MTLNCL	< 0.22	UG/L	0.22	2	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	NAPH	< 0.36	UG/L	0.36	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	PBZN	< 0.099	UG/L	0.099	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	PCA	< 0.19	UG/L	0.19	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	PCE	< 0.14	UG/L	0.14	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	STY	< 0.15	UG/L	0.15	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TAME	< 0.67	UG/L	0.67	5	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TBME	< 0.12	UG/L	0.12	1	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TBUTMEE	< 0.22	UG/L	0.22	2	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TC1112	< 0.13	UG/L	0.13	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TCA111	< 0.42	UG/L	0.42	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TCA112	< 0.17	UG/L	0.17	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TCB123	< 0.31	UG/L	0.31	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TCB124	< 0.25	UG/L	0.25	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TCE	**4.6**	UG/L	0.15	1	-	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TCLME	< 0.41	UG/L	0.41	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TCPR123	< 0.17	UG/L	0.17	2	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TMB124	< 0.11	UG/L	0.11	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	TMB135	< 0.13	UG/L	0.13	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	VA	< 0.32	UG/L	0.32	5	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	VC	< 0.2	UG/L	0.2	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	XYLMP	< 0.27	UG/L	0.27	1	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW5030B	SW8260B	XYLO	< 0.14	UG/L	0.14	0.5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	ACE	< 2.7	UG/L	2.7	10	UJ	S
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BDCME	< 0.17	UG/L	0.17	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BRBZ	< 0.13	UG/L	0.13	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BRCLME	< 0.22	UG/L	0.22	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BRME	< 0.18	UG/L	0.18	2	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BTBZN	< 0.14	UG/L	0.14	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BTBZS	< 0.14	UG/L	0.14	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BTBZT	< 0.13	UG/L	0.13	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BZ	< 0.15	UG/L	0.15	0.5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	BZME	< 0.14	UG/L	0.14	0.5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	CDS	< 0.11	UG/L	0.11	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	CLBZ	< 0.14	UG/L	0.14	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	CLBZME2	< 0.14	UG/L	0.14	1	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	CLBZME4	< 0.19	UG/L	0.19	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	CLEA	< 0.43	UG/L	0.43	2	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	CLME	< 0.24	UG/L	0.24	2	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	CTCL	< 0.091	UG/L	0.091	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	CYMP	< 0.12	UG/L	0.12	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DBCME	< 0.14	UG/L	0.14	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DBCP	< 0.71	UG/L	0.71	2	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DBMA	< 0.21	UG/L	0.21	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCA11	**1.2**	UG/L	0.16	3	J	T
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCA12	< 0.21	UG/L	0.21	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCBZ12	< 0.2	UG/L	0.2	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCBZ13	< 0.14	UG/L	0.14	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCBZ14	< 0.15	UG/L	0.15	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCE11	< 0.1	UG/L	0.1	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCE12C	**8.9**	UG/L	0.16	1	-	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCE12T	< 0.18	UG/L	0.18	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCP11	< 0.2	UG/L	0.2	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCP13C	< 0.21	UG/L	0.21	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCP13T	< 0.23	UG/L	0.23	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCPA12	< 0.14	UG/L	0.14	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCPA13	< 0.23	UG/L	0.23	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	DCPA22	< 0.12	UG/L	0.12	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	EBZ	< 0.12	UG/L	0.12	0.5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	EDB	< 0.19	UG/L	0.19	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	EMETHACRY	< 0.22	UG/L	0.22	5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	ETBE	< 0.49	UG/L	0.49	5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	FC11	< 0.11	UG/L	0.11	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	FC12	< 0.12	UG/L	0.12	2	UJ	S

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	HCBU	< 0.23	UG/L	0.23	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	HXO2	< 1	UG/L	1	10	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	IME	< 0.13	UG/L	0.13	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	IPBZ	< 0.12	UG/L	0.12	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	ISOPRE	< 0.34	UG/L	0.34	5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	MEK	< 2.1	UG/L	2.1	10	UJ	S
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	MIBK	< 1.2	UG/L	1.2	10	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	MTLNCL	< 0.22	UG/L	0.22	2	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	NAPH	< 0.36	UG/L	0.36	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	PBZN	< 0.099	UG/L	0.099	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	PCA	< 0.19	UG/L	0.19	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	PCE	**2.7**	UG/L	0.14	1	-	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	STY	< 0.15	UG/L	0.15	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TAME	< 0.67	UG/L	0.67	5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TBME	< 0.12	UG/L	0.12	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TBUTMEE	< 0.22	UG/L	0.22	2	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TC1112	< 0.13	UG/L	0.13	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TCA111	< 0.42	UG/L	0.42	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TCA112	< 0.17	UG/L	0.17	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TCB123	< 0.31	UG/L	0.31	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TCB124	< 0.25	UG/L	0.25	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TCE	**13**	UG/L	0.15	1	-	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TCLME	< 0.41	UG/L	0.41	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TCPR123	< 0.17	UG/L	0.17	2	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TMB124	< 0.11	UG/L	0.11	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	TMB135	< 0.13	UG/L	0.13	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	VA	< 0.32	UG/L	0.32	5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	VC	< 0.2	UG/L	0.2	1	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	XYLMP	< 0.27	UG/L	0.27	1	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW5030B	SW8260B	XYLO	< 0.14	UG/L	0.14	0.5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	ACE	< 2.7	UG/L	2.7	10	UJ	S
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BDCME	< 0.17	UG/L	0.17	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BRBZ	< 0.13	UG/L	0.13	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BRCLME	< 0.22	UG/L	0.22	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BRME	< 0.18	UG/L	0.18	2	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BTBZN	< 0.14	UG/L	0.14	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BTBZS	< 0.14	UG/L	0.14	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BTBZT	< 0.13	UG/L	0.13	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BZ	< 0.15	UG/L	0.15	0.5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	BZME	< 0.14	UG/L	0.14	0.5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	CDS	< 0.11	UG/L	0.11	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	CLBZ	< 0.14	UG/L	0.14	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	CLBZME2	< 0.14	UG/L	0.14	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	CLBZME4	< 0.19	UG/L	0.19	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	CLEA	< 0.43	UG/L	0.43	2	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	CLME	< 0.24	UG/L	0.24	2	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	CTCL	< 0.091	UG/L	0.091	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	CYMP	< 0.12	UG/L	0.12	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DBCME	< 0.14	UG/L	0.14	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DBCP	< 0.71	UG/L	0.71	2	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DBMA	< 0.21	UG/L	0.21	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCA11	< 0.16	UG/L	0.16	3	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCA12	< 0.21	UG/L	0.21	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCBZ12	< 0.2	UG/L	0.2	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCBZ13	< 0.14	UG/L	0.14	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCBZ14	< 0.15	UG/L	0.15	1	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCE11	< 0.1	UG/L	0.1	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCE12C	**0.57**	UG/L	0.16	1	J	T
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCE12T	< 0.18	UG/L	0.18	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCP11	< 0.2	UG/L	0.2	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCP13C	< 0.21	UG/L	0.21	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCP13T	< 0.23	UG/L	0.23	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCPA12	< 0.14	UG/L	0.14	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCPA13	< 0.23	UG/L	0.23	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	DCPA22	< 0.12	UG/L	0.12	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	EBZ	< 0.12	UG/L	0.12	0.5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	EDB	< 0.19	UG/L	0.19	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	EMETHACRY	< 0.22	UG/L	0.22	5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	ETBE	< 0.49	UG/L	0.49	5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	FC11	< 0.11	UG/L	0.11	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	FC12	< 0.12	UG/L	0.12	2	UJ	S
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	HCBU	< 0.23	UG/L	0.23	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	HXO2	< 1	UG/L	1	10	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	IME	< 0.13	UG/L	0.13	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	IPBZ	< 0.12	UG/L	0.12	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	ISOPRE	1	UG/L	0.34	5	J	T
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	MEK	< 2.1	UG/L	2.1	10	UJ	S
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	MIBK	< 1.2	UG/L	1.2	10	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	MTLNCL	< 0.22	UG/L	0.22	2	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	NAPH	< 0.36	UG/L	0.36	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	PBZN	< 0.099	UG/L	0.099	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	PCA	< 0.19	UG/L	0.19	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	PCE	< 0.14	UG/L	0.14	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	STY	< 0.15	UG/L	0.15	1	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 1 - VOCs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TAME	< 0.67	UG/L	0.67	5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TBME	< 0.12	UG/L	0.12	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TBUTMEE	< 0.22	UG/L	0.22	2	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TC1112	< 0.13	UG/L	0.13	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TCA111	< 0.42	UG/L	0.42	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TCA112	< 0.17	UG/L	0.17	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TCB123	< 0.31	UG/L	0.31	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TCB124	< 0.25	UG/L	0.25	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TCE	**0.52**	UG/L	0.15	1	J	T
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TCLME	< 0.41	UG/L	0.41	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TCPR123	< 0.17	UG/L	0.17	2	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TMB124	< 0.11	UG/L	0.11	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	TMB135	< 0.13	UG/L	0.13	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	VA	< 0.32	UG/L	0.32	5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	VC	< 0.2	UG/L	0.2	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	XYLMP	< 0.27	UG/L	0.27	1	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW5030B	SW8260B	XYLO	< 0.14	UG/L	0.14	0.5	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents In Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 3 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	ACNP	< 0.34	UG/L	0.34	2.4	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	ACNPY	< 1.5	UG/L	1.5	4.8	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	ANTH	< 0.049	UG/L	0.049	0.66	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	BZAA	< 0.052	UG/L	0.052	0.24	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	BZAP	< 0.052	UG/L	0.052	0.24	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	BZBF	< 0.088	UG/L	0.088	0.48	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	BZGHIP	< 0.084	UG/L	0.084	0.48	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	BZKF	< 0.047	UG/L	0.047	0.24	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	CHRYSENE	< 0.051	UG/L	0.051	0.24	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	DBAHA	< 0.13	UG/L	0.13	0.95	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	FL	< 0.11	UG/L	0.11	0.48	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	FLA	< 0.11	UG/L	0.11	0.48	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	INP123	< 0.037	UG/L	0.037	0.48	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	NAPH	< 0.36	UG/L	0.36	2.4	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	PHAN	< 0.049	UG/L	0.049	0.57	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8310	PYR	< 0.059	UG/L	0.059	0.48	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	ACNP	< 0.35	UG/L	0.35	2.5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	ACNPY	< 1.6	UG/L	1.6	4.9	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	ANTH	< 0.051	UG/L	0.051	0.69	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	BZAA	< 0.054	UG/L	0.054	0.25	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	BZAP	< 0.054	UG/L	0.054	0.25	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	BZBF	< 0.091	UG/L	0.091	0.49	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	BZGHIP	< 0.086	UG/L	0.086	0.49	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	BZKF	< 0.048	UG/L	0.048	0.25	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	CHRYSENE	< 0.053	UG/L	0.053	0.25	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	DBAHA	< 0.13	UG/L	0.13	0.98	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	FL	< 0.11	UG/L	0.11	0.49	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	FLA	< 0.11	UG/L	0.11	0.49	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 3 - PAHs:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	INP123	< 0.038	UG/L	0.038	0.49	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	NAPH	< 0.37	UG/L	0.37	2.5	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	PHAN	< 0.051	UG/L	0.051	0.59	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8310	PYR	< 0.061	UG/L	0.061	0.49	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	ACNP	< 0.35	UG/L	0.35	2.5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	ACNPY	< 1.6	UG/L	1.6	4.9	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	ANTH	< 0.051	UG/L	0.051	0.69	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	BZAA	< 0.054	UG/L	0.054	0.25	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	BZAP	< 0.08	UG/L	0.08	0.25	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	BZBF	< 0.091	UG/L	0.091	0.49	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	BZGHIP	< 0.2	UG/L	0.2	0.49	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	BZKF	< 0.051	UG/L	0.051	0.25	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	CHRYSENE	< 0.069	UG/L	0.069	0.25	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	DBAHA	< 0.13	UG/L	0.13	0.98	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	FL	**0.17**	UG/L	0.11	0.49	J+	3HT
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	FLA	< 0.11	UG/L	0.11	0.49	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	INP123	< 0.078	UG/L	0.078	0.49	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	NAPH	< 0.37	UG/L	0.37	2.5	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	PHAN	< 0.1	UG/L	0.1	0.59	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8310	PYR	< 0.061	UG/L	0.061	0.49	U	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

Appendix G, continued

Analytical Results for All Constituents in Groundwater
Area I Fuel Only Facilities Field Site Investigation

Section 4 - TPH:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8015B	DRO	< 64	UG/L	64	95	U	-
B118ATR002-A-W01	9/19/2000	4.2	SW3520C	SW8015B	RRO	< 54	UG/L	54	480	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8015B	DRO	< 70	UG/L	70	100	U	-
B118ATR004-A-W01	9/19/2000	8.3	SW3520C	SW8015B	RRO	< 59	UG/L	59	520	U	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8015B	DRO	**2700**	UG/L	64	95	-	-
B118ATR005-A-W01	9/19/2000	7.5	SW3520C	SW8015B	RRO	**860**	UG/L	54	480	-	-

Section 6 - Miscellaneous Constituents:

Sample ID	Sample Date	Depth (feet)	Prep Method	Analytical Method	Analyte	Result**	Units	MDL	PQL	QC Flag	Reason Code
B118ATR002-A-W01	9/19/2000	4.2	NONE	E160.1	TDS	**215**	MG/L	4.33	10	-	-
B118ATR004-A-W01	9/19/2000	8.3	NONE	E160.1	TDS	**855**	MG/L	4.33	10	-	-
B118ATR005-A-W01	9/19/2000	7.5	NONE	E160.1	TDS	**430**	MG/L	4.33	10	-	-

*** Duplicate of preceeding sample. ** See Appendix E for complete legend.**

APPENDIX H

TICS IN ALL MATRICES

Appendix H

Analytical Results for Tentatively Identified Compounds in All Matrices
Area I Fuel Only Facilities Field Site Investigation

Section 1 - Soil:

Sample ID	Sample Date	Depth (feet)	Sample Type	Prep Method	Analytical Method	Analyte Name	Result	Units	QC Flag	Reason Code
B054HA001-A-S01	9/21/2000	0	R1	SW5035	SW8260B	2,6-DIMETHYLNAPHTHALENE	0.05	MG/KG	NJ	-
B054HA001-A-S01	9/21/2000	0	R1	SW5035	SW8260B	2,7-DIMETHYLNAPHTHALENE	0.041	MG/KG	NJ	-
B118ATR001-A-S01	9/19/2000	1.3	R1	SW5035	SW8260B	1-PROPENYLCYCLOHEXANE	0.18	MG/KG	NJ	-
B118ATR001-A-S01	9/19/2000	1.3	R1	SW5035	SW8260B	BICYCLO[3.3.0]OCTANE	0.099	MG/KG	NJ	-
B118ATR001-A-S01	9/19/2000	1.3	R1	SW5035	SW8260B	ISOPROPYLCYCLOHEXANE	0.037	MG/KG	NJ	-
B118ATR001-A-S01	9/19/2000	1.3	R1	SW5035	SW8260B	DECAHYDRONAPHTHALENE	0.056	MG/KG	NJ	-
B118ATR005-A-S05	9/20/2000	6.5	R1	SW5035	SW8260B	3-METHYLCYCLOOCTENE	0.05	MG/KG	NJ	-
B118ATR005-A-S05	9/20/2000	6.5	R1	SW5035	SW8260B	4-ISOPROPENYL-1-METHYL-CYCLOHEXENE	0.096	MG/KG	NJ	-
B118ATR005-A-S05	9/20/2000	6.5	R1	SW5035	SW8260B	2,6-DIMETHYLUNDECANE	0.052	MG/KG	NJ	-
B118ATR005-A-S05	9/20/2000	6.5	R1	SW5035	SW8260B	ALPHA-METHYLDECALIN	0.096	MG/KG	NJ	-
B118ATR005-A-S05	9/20/2000	6.5	R1	SW5035	SW8260B	METHYLDECAHYDRONAPHTHALENE	0.11	MG/KG	NJ	-
B118ATR005-A-S05	9/20/2000	6.5	R1	SW5035	SW8260B	2,6,10-TRIMETHYLDODECANE	0.045	MG/KG	NJ	-
B118ATR005-A-S05	9/20/2000	6.5	R1	SW5035	SW8260B	2-METHYLBUTYLCYCLOPENTANE	0.066	MG/KG	NJ	-
B118ATR005-A-S05	9/20/2000	6.5	R1	SW5035	SW8260B	DECAHYDRONAPHTHALENE	0.048	MG/KG	NJ	-
B152HA001-A-S01	9/21/2000	4	R1	SW5035	SW8260B	2,6-DIMETHYLUNDECANE	0.051	MG/KG	NJ	-
B152HA001-A-S01	9/21/2000	4	R1	SW5035	SW8260B	2,3-DIHYDRO-2,2-DIMETHYLINDENE	0.054	MG/KG	NJ	-
B152HA001-A-S01	9/21/2000	4	R1	SW5035	SW8260B	ALPHA-METHYLDECALIN	0.05	MG/KG	NJ	8
B152HA001-A-S01	9/21/2000	4	R1	SW5035	SW8260B	HEXAHYDROINDAN	0.022	MG/KG	NJ	-
B152HA001-A-S01	9/21/2000	4	R1	SW5035	SW8260B	DECAHYDRONAPHTHALENE	0.065	MG/KG	NJ	-
B152HA001-B-S01	9/21/2000	4.2	D1	SW5035	SW8260B	1,2,3-TRIMETHYLCYCLOHEXANE	0.076	MG/KG	NJ	-
B152HA001-B-S01	9/21/2000	4.2	D1	SW5035	SW8260B	1H-INDENE,2,3-DIHYDRO-1,2-DIMETHYL	0.1	MG/KG	NJ	-
B152HA001-B-S01	9/21/2000	4.2	D1	SW5035	SW8260B	ALPHA-METHYLDECALIN	0.091	MG/KG	NJ	8
B152HA001-B-S01	9/21/2000	4.2	D1	SW5035	SW8260B	2,6,11-TRIMETHYLDODECANE	0.077	MG/KG	NJ	-
B152HA001-B-S01	9/21/2000	4.2	D1	SW5035	SW8260B	DECAHYDRONAPHTHALENE	0.074	MG/KG	NJ	-

See Appendix E for complete legend.

Appendix H, continued

Analytical Results for Tentatively Identified Compounds in All Matrices
Area I Fuel Only Facilities Field Site Investigation

Section 2 - Water:

Sample ID	Sample Date	Depth (feet)	Sample Type	Prep Method	Analytical Method	Analyte Name	Result	Units	QC Flag	Reason Code
B118ATR005-A-W01	9/19/2000	7.5	R1	SW5030B	SW8260B	2,6-DIMETHYLUNDECANE	2.6	UG/L	NJ	-
B118ATR005-A-W01	9/19/2000	7.5	R1	SW5030B	SW8260B	2,3-DIHYDRO-2,2-DIMETHYLINDENE	2.2	UG/L	NJ	-

See Appendix E for complete legend.