WSCF Laboratory

PO Box 650 S3-30
Richland, WA 99352

RECEIVED APRIL 20, 2011

0098257

April 19, 2011

Michael Neely
CH2M-HILL PRC
PO Box 1600
Richland, WA 99352

Dear Michael Neely,

FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF111947

Reference: (1) SOW, Mod 2, #36587, Release 3
(2) HNF-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF111947

* Cover Sheet (Attachment 1)
* Narrative (Attachment 2)
* Analytical Results (Attachment 3)
* Sample Receipt Information (Attachment 4)

Very truly yours,

Electronically signed by Joseph Hale
For Lab Manager
WSCF Analytical Lab
(509) 373-7495

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AUG 17 2011

Attachments 4

CC: w/Attachments

File/LB

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF Number Cross Reference

Group # WSCF111947
Data Deliverable Date 04/20/11

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
F10-295	B297H6	111947001	SOIL	04/05/11	04/05/11
F10-295	B297J8	111947002	SOIL	04/05/11	04/05/11

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Attachment 2
Narrative
WSCF111947

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, D, U and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF111947

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Matrix Spike and Post Spike recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- All other applicable QC controls are within the established limits.

ICP-AES Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Boron – Sample concentrations are estimated. "E"-Flagged are applied to samples. Samples are also "X" flagged to indicate iron interference.
- All other applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Manganese – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Blank, Laboratory Control Sample and Laboratory Control Sample Duplicate were analyzed with this delivery group. Analytical Note(s):

- Analysis performed by 8270-PAH SIM method.
- All applicable QC controls are within the established limits.

TPHD-WA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

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Narrative
WSCF111947

- Due to the co-elution of analytes for TPHD-WA (DRO) and kerosene analysis, samples are spiked and evaluated for TPHD only.
    - All applicable QC controls are within the established limits.

VOA – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group.
Analytical Note(s):

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 37 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

CH2M Hill Plateau Remediation

PO Box 1600
Richland, WA 99352

Attention: Michael Neely

Contract #	MOA-FH-CHPRC-2008
Group #	WSCF111947
Report Date	April 19, 2011

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Richard Barker

Solid samples results that have a 'Percent Solid' test are reported on a "dry weight basis", except results of TCLP, Percent Solid, and Total Activity. If no `Percent Solid' test is reported then the results are reported on an "as received" basis.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF111947

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
180662	180732	1	BLANK	52771	BLANK		ICP-6010 - All possible metals
180662	180732	2	LCS	52772	LCS		ICP-6010 - All possible metals
180662	180732	4	MS	52773	B2CN20(111933001MS)	111933001	ICP-6010 - All possible metals
180662	180732	5	MSD	52774	B2CN20(111933001MSD)	111933001	ICP-6010 - All possible metals
180662	180732	12	SAMPLE	111947001	B297H6		ICP-6010 - All possible metals
180676	180677	4	BLANK	52810	BLANK		ICP-2008 MS All possible metal
180676	180677	5	LCS	52811	LCS		ICP-2008 MS All possible metal
180676	180677	6	MS	52812	B2BFH5(111883001MS)	111883001	ICP-2008 MS All possible metal
180676	180677	7	MSD	52813	B2BFH5(111883001MSD)	111883001	ICP-2008 MS All possible metal
180676	180677	19	SAMPLE	111947001	B297H6		ICP-2008 MS All possible metal
180736	180737	2	BLANK	52926	BLANK		Anions by Ion Chromatography (Solid)
180736	180737	3	LCS	52927	LCS		Anions by Ion Chromatography (Solid)
180736	180737	4	MS	52928	B297K1(111946001MS)	111946001	Anions by Ion Chromatography (Solid)
180736	180737	5	MSD	52929	B297K1(111946001MSD)	111946001	Anions by Ion Chromatography (Solid)
180736	180737	6	DUP	52930	B297K1(111946001DUP)	111946001	Anions by Ion Chromatography (Solid)
180736	180737	12	SAMPLE	111947001	B297H6		Anions by Ion Chromatography (Solid)
180954	180958	4	BLANK	53118	BLANK		Hexavalent chromium
180954	180958	5	LCS	53119	LCS		Hexavalent chromium
180954	180958	6	DUP	53120	B2BF76(111862001DUP)	111862001	Hexavalent chromium
180954	180958	7	MS	53121	B2BF76(111862001MS)	111862001	Hexavalent chromium
180954	180958	8	PSTSPK	53122	PSTSPK		Hexavalent chromium
180954	180958	9	IMS	53123	B2BF76(111862001IMS)	111862001	Hexavalent chromium
180954	180958	26	SAMPLE	111947001	B297H6		Hexavalent chromium

Batch QC List

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
180663	180873	1	BLANK	52775	BLANK		Extractable Diesel and Petroleum
180663	180873	2	LCS	52776	LCS		Extractable Diesel and Petroleum
180663	180873	3	MS	52777	B297H6(111947001MS)	111947001	Extractable Diesel and Petroleum
180663	180873	4	MSD	52778	B297H6(111947001MSD)	111947001	Extractable Diesel and Petroleum
180663	180873	8	SAMPLE	111947001	B297H6		Extractable Diesel and Petroleum
180664	181104	1	BLANK	52779	BLANK		PCBs by EPA SW-846 Method 8082
180664	181104	2	LCS	52780	LCS		PCBs by EPA SW-846 Method 8082
180664	181104	3	MS	52781	B297H6(111947001MS)	111947001	PCBs by EPA SW-846 Method 8082
180664	181104	4	MSD	52782	B297H6(111947001MSD)	111947001	PCBs by EPA SW-846 Method 8082
180664	181104	8	SAMPLE	111947001	B297H6		PCBs by EPA SW-846 Method 8082
180978	181011	1	BLANK	53166	BLANK		SW-846 8270D Semivolatiles (PAHSIM)
180978	181011	2	LCS	53167	LCS		SW-846 8270D Semivolatiles (PAHSIM)
180978	181011	3	LCSD	53168	LCSD		SW-846 8270D Semivolatiles (PAHSIM)
180978	181011	7	SAMPLE	111947001	B297H6		SW-846 8270D Semivolatiles (PAHSIM)

Batch QC List

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111947

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
180688	180689	1	BLANK	52835	BLANK		SW-846 8260B Volatiles, separate prep
180688	180689	2	LCS	52836	LCS		SW-846 8260B Volatiles, separate prep
180688	180689	3	MS	52837	B297J8(111947002MS)	111947002	SW-846 8260B Volatiles, separate prep
180688	180689	4	MSD	52838	B297J8(111947002MSD)	111947002	SW-846 8260B Volatiles, separate prep
180688	180689	8	SAMPLE	111947002	B297J8		SW-846 8260B Volatiles, separate prep

Batch QC List

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111947

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
180733	180733	8	SAMPLE	111947001	B297H6		Dry Weight/Percent Moisture
180733	180733	9	SAMPLE	111947002	B297J8		Dry Weight/Percent Moisture

Method Reference

Attention Michael Neely
Department Inorganic

Group # WSCF111947

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-265-403	Hexavalent Chromium Analysis		
	EPA SW-846	7196A	Hexavalent Chromium
	HEIS	7196_CR6	Hexavalent Chromium
LA-505-411	Elemental Analysis by ICP Atomic Emission Spectroscopy (ICP AES)		
	EPA SW-846	6010C	Inductively Coupled Plasma-Atomic Emmision Spectrometry
	HEIS	6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry
LA-505-412	Determination of Trace Elements in Waters & Wastes by ICP-Mass Spectrometry		
	EPA-600/R-94-111	200.8	Determination of Trace Elements in Waters and Waste by Inductively Coupled Plasma
	HEIS	200.8_METALS_ICPMS	Determination of Trace Elements in Waters and Waste by Inductively Coupled Plasma, Mass Spec.
LA-533-410	Anion Analysis by Ion Chromatography		
	EPA-600/R-94-111	300.0	Determination of Inorganic Anions by Ion Chromatography
	HEIS	300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-456	Semivolatile Sample Analysis by SW-846 Method 8270D		
	EPA SW-846	8000B	Determinative Chromagraphic Separations
	EPA SW-846	3510C	Separatory Funnel Liquid-Liquid Extraction
	EPA SW-846	8270D	Semivolatile Organic Compounds by Gas
	EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
			Chromatography/Mass Spectrometry (GC/MS)
	HEIS	8270_SVOA_GCMS	Semivolatile Organic Compounds by Gas
			Chromatography/Mass Spectrometry(GC/MS)
LA-523-427	Polychlorinated Biphenyls (PCB'S) by Gas Chromatography		
	EPA SW-846	3510C	Separatory Funnel Liquid-Liquid Extraction
	EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
	EPA SW-846	3665A	Sulfuric Acid/Permanganate Cleanup
	EPA SW-846	8000B	Determinative Chromatographic Separations
	EPA SW-846	8082	Polychlorinated Biphenyls (PCBs) by Gas
			Chromatography
	HEIS	8082_PCB_GC	Polychlorinated Biphenyls (PCBs) by Gas
			Chromatography
LA-523-493	NWTPH-Dx, Extractible Diesel and Petroleum Productions Analysis in Soil and Water		
	WDOE	WDOE	Total Petroleum Hydrocarbons in Diesel
	HEIS	WTPH_DIESEL	TPH Diesel

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111947

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-455	Volatile Sample Analysis by SW-846 Method 8260B		
	EPA SW-846	8000B	Determinative Chromographic Separations
	EPA SW-846	8260B	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
	HEIS	8260_VOA_GCMS	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111947

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-519-412 Total Residual Percent Solids Dried at 103 - 105 Degrees C

EPA-600/4-79-020	160.3	Total Residue
Standard Methods	2540B	Total Solids Dried at 103-105 C
HEIS	%SOLIDS	Dry Weight, Percent Solids

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

Sample # 111947001
SAF# F10-295
Sample ID B297H6

Matrix SOIL
Sampled 04/05/11
Received 04/05/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										**04/06/11**
Anions by IC										
Nitrate-N	NO3-N	LA-533-410		7.51		mg/kg	1	1.7	5.4	04/06/11
Cr(VI) Prep										**04/12/11**
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	UN	<0.11		ug/g	1	0.11	0.53	04/12/11
ICP Prep										**04/06/11**
ICP-AES										
Lithium	7439-93-2	LA-505-411		2.27		mg/kg	1	0.43	2.2	04/11/11
Boron	7440-42-8	LA-505-411	BEX	10.1		mg/kg	1	4.4	22	04/11/11
ICPMS Prep										**04/08/11**
ICP-MS										
Manganese	7439-96-5	LA-505-412		387		mg/kg	1	0.10	1.0	04/08/11
Nickel	7440-02-0	LA-505-412		8.84		mg/kg	1	0.20	2.0	04/08/11
Silver	7440-22-4	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	04/08/11
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	04/08/11
Barium	7440-39-3	LA-505-412		48.3		mg/kg	1	0.20	2.0	04/08/11
Beryllium	7440-41-7	LA-505-412	B	0.255		mg/kg	1	0.10	0.50	04/08/11
Cadmium	7440-43-9	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	04/08/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

Sample # 111947001
SAF# F10-295
Sample ID B297H6

Matrix SOIL
Sampled 04/05/11
Received 04/05/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Chromium	7440-47-3	LA-505-412	B	3.59		mg/kg	1	0.50	5.0	04/08/11
Cobalt	7440-48-4	LA-505-412		11.5		mg/kg	1	0.10	0.50	04/08/11
Copper	7440-50-8	LA-505-412		18.9		mg/kg	1	0.10	1.0	04/08/11
Vanadium	7440-62-2	LA-505-412		67.5		mg/kg	1	0.20	2.0	04/08/11
Zinc	7440-66-6	LA-505-412		55.0		mg/kg	1	0.81	5.0	04/08/11
Lead	7439-92-1	LA-505-412		4.97		mg/kg	1	0.10	1.0	04/08/11
Mercury	7439-97-6	LA-505-412	U	<0.050		mg/kg	1	0.050	0.20	04/08/11
Strontium	7440-24-6	LA-505-412		32.1		mg/kg	1	0.10	1.0	04/08/11
Thallium	7440-28-0	LA-505-412	U	<0.10		mg/kg	1	0.10	0.50	04/08/11
Tin	7440-31-5	LA-505-412		0.501		mg/kg	1	0.10	0.50	04/08/11
Uranium	7440-61-1	LA-505-412		0.550		mg/kg	1	0.10	0.50	04/08/11
Arsenic	7440-38-2	LA-505-412	B	2.16		mg/kg	1	0.40	4.0	04/08/11
Selenium	7782-49-2	LA-505-412	B	2.47		mg/kg	1	0.30	3.0	04/08/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

Sample # 111947001
SAF# F10-295
Sample ID B297H6

Matrix SOIL
Sampled 04/05/11
Received 04/05/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8270 Prep										**04/13/11**
SW-846 8270D										
Naphthalene	91-20-3	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Acenaphthylene	208-96-8	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Acenaphthene	83-32-9	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Fluorene	86-73-7	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Phenanthrene	85-01-8	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Anthracene	120-12-7	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Fluoranthene	206-44-0	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Pyrene	129-00-0	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Benzo(a)anthracene	56-55-3	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Chrysene	218-01-9	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Benzo(a)pyrene	50-32-8	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Dibenzo(a,h)anthracene	53-70-3	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
Benzo(g,h,i)perylene	191-24-2	LA-523-456	U	<200		ug/kg	1	200	800	04/13/11
PCB Prep Solids										**04/06/11**

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

Sample # 111947001
SAF# F10-295
Sample ID B297H6

Matrix SOIL
Sampled 04/05/11
Received 04/05/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
PCBs										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	9	04/18/11
Aroclor-1221	11104-28-2	LA-523-427	U	<9		ug/kg	1	9	20	04/18/11
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	9	04/18/11
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	9	04/18/11
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	9	04/18/11
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	9	04/18/11
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	9	04/18/11
TPHD Prep Solids										**04/06/11**
TPHDWA										
Diesel	TPHDIESEL	LA-523-493	U	<4		mg/kg	1	4	5	04/12/11
Kerosene	TPHKEROSEN	LA-523-493	U	<4		mg/kg	1	4	5	04/12/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111947

Sample # 111947002
SAF# F10-295
Sample ID B297J8

Matrix SOIL
Sampled 04/05/11
Received 04/05/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										**04/07/11**
SW-846 8260B										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/kg	1	1	5	04/07/11
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/kg	1	1	5	04/07/11
Benzene	71-43-2	LA-523-455	U	<1		ug/kg	1	1	5	04/07/11
Toluene	108-88-3	LA-523-455	U	<1		ug/kg	1	1	5	04/07/11
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/kg	1	1	5	04/07/11
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/kg	1	1	5	04/07/11
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/kg	1	1	5	04/07/11
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/kg	1	1	5	04/07/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
N - MS and/or MSD recovery outside control limits.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111947

Sample # 111947001
SAF# F10-295
Sample ID B297H6

Matrix SOIL
Sampled 04/05/11
Received 04/05/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/07/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			04/07/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111947

Sample # 111947002
SAF# F10-295
Sample ID B297J8

Matrix SOIL
Sampled 04/05/11
Received 04/05/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**04/07/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		96		percent	1			04/07/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

QC Batch 180662
Associated Samples 111947001

Test ICP-6010 - All possible metals

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #52771**							
Lithium	7439-93-2		<4.0	ug/L					U	04/11/11
Boron	7440-42-8		<41	ug/L					U	04/11/11
LCS			**QC Sample #52772**							
Lithium	7439-93-2		6.84	mg/kg	80.6	48 - 119				04/11/11
Boron	7440-42-8		132	mg/kg	113.9	76 - 151				04/11/11
MS			**QC Sample #52773**							
			Original 111933001							
Lithium	7439-93-2		55.2	mg/kg	109.8	75 - 125				04/11/11
Boron	7440-42-8		99.5	mg/kg	98.9	75 - 125				04/11/11
MSD			**QC Sample #52774**							
			Original 111933001					**Paired**	**52773**	
Lithium	7439-93-2		57.1	mg/kg	113.2	75 - 125	3.00	30		04/11/11
Boron	7440-42-8		98.8	mg/kg	97.9	75 - 125	1.00	30		04/11/11

Quality Control Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

QC Batch 180663
Associated Samples 111947001

Test Extractable Diesel and Petroleum

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #52775**							
Diesel	TPHDIESEL		<4	mg/kg					U	04/12/11
Kerosene	TPHKEROSE		<4	mg/kg					U	04/12/11
LCS			**QC Sample #52776**							
Diesel	TPHDIESEL		75	mg/kg	74.7	70 - 130				04/12/11
MS			**QC Sample #52777**							
			Original 111947001							
Diesel	TPHDIESEL	<4	440	mg/kg	96.2	70 - 130				04/12/11
MSD			**QC Sample #52778**							
			Original 111947001					**Paired**	**52777**	
Diesel	TPHDIESEL	<4	460	mg/kg	93.2	70 - 130	3.20	30		04/12/11

Quality Control Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

QC Batch 180664
Associated Samples 111947001

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #52779**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	04/18/11
Aroclor-1221	11104-28-2		<8	ug/kg					U	04/18/11
Aroclor-1232	11141-16-5		<4	ug/kg					U	04/18/11
Aroclor-1242	53469-21-9		<4	ug/kg					U	04/18/11
Aroclor-1248	12672-29-6		<4	ug/kg					U	04/18/11
Aroclor-1254	11097-69-1		<4	ug/kg					U	04/18/11
Aroclor-1260	11096-82-5		<4	ug/kg					U	04/18/11
LCS			**QC Sample #52780**							
Aroclor-1254	11097-69-1		76	ug/kg	95.5	75 - 128				04/18/11
MS			**QC Sample #52781**							
			Original 111947001							
Aroclor-1254	11097-69-1	<4	380	ug/kg	104.2	62 - 140				04/18/11
MSD			**QC Sample #52782**							
			Original 111947001					**Paired 52781**		
Aroclor-1254	11097-69-1	<4	360	ug/kg	101.2	62 - 140	2.90	30		04/18/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

QC Batch 180676
Associated Samples 111947001

Test ICP-2008 MS All possible metal

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #52811**							
Manganese	7439-96-5		495	mg/kg	111.6	75 - 121				04/08/11
Nickel	7440-02-0		59.7	mg/kg	109.8	74 - 122				04/08/11
Silver	7440-22-4		116	mg/kg	117.5	83 - 127				04/08/11
Antimony	7440-36-0		152	mg/kg	172.6	62 - 205				04/08/11
Barium	7440-39-3		354	mg/kg	113.4	78 - 118				04/08/11
Beryllium	7440-41-7		92.7	mg/kg	105.8	77 - 120				04/08/11
Cadmium	7440-43-9		71.9	mg/kg	110.5	76 - 129				04/08/11
Chromium	7440-47-3		80.1	mg/kg	112.4	68 - 119				04/08/11
Cobalt	7440-48-4		80.8	mg/kg	113	77 - 122				04/08/11
Copper	7440-50-8		70.7	mg/kg	105.4	67 - 120				04/08/11
Vanadium	7440-62-2		95.2	mg/kg	117.2	67 - 122				04/08/11
Zinc	7440-66-6		187	mg/kg	108	73 - 131				04/08/11
Lead	7439-92-1		136	mg/kg	107.3	79 - 124				04/08/11
Mercury	7439-97-6		8.12	mg/kg	100	69 - 124				04/08/11
Strontium	7440-24-6		62.3	mg/kg	117	78 - 119				04/08/11
Thallium	7440-28-0		133	mg/kg	102	52 - 137				04/08/11
Tin	7440-31-5		206	mg/kg	121.6	84 - 130				04/08/11
Uranium	7440-61-1		421	mg/kg	107.5	86 - 113				04/08/11
Arsenic	7440-38-2		148	mg/kg	114.7	79 - 125				04/08/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		185	mg/kg	117.4	82 - 133				04/08/11
MS			**QC Sample #52812**							
			Original 111883001							
Manganese	7439-96-5		117	mg/kg	115.5	70 - 130			X	04/08/11
Nickel	7440-02-0		110	mg/kg	108.5	70 - 130				04/08/11
Silver	7440-22-4		110	mg/kg	109	70 - 130				04/08/11
Antimony	7440-36-0		104	mg/kg	103	70 - 130				04/08/11
Barium	7440-39-3		111	mg/kg	109.8	70 - 130				04/08/11
Beryllium	7440-41-7		111	mg/kg	109.4	70 - 130				04/08/11
Cadmium	7440-43-9		111	mg/kg	109.4	70 - 130				04/08/11
Chromium	7440-47-3		116	mg/kg	114.4	70 - 130				04/08/11
Cobalt	7440-48-4		110	mg/kg	108.5	70 - 130				04/08/11
Copper	7440-50-8		108	mg/kg	106.4	70 - 130				04/08/11
Vanadium	7440-62-2		110	mg/kg	108.6	70 - 130				04/08/11
Zinc	7440-66-6		108	mg/kg	106.2	70 - 130				04/08/11
Lead	7439-92-1		111	mg/kg	109.7	70 - 130				04/08/11
Mercury	7439-97-6		2.32	mg/kg	114.5	70 - 130				04/08/11
Strontium	7440-24-6		117	mg/kg	115.2	70 - 130				04/08/11
Thallium	7440-28-0		108	mg/kg	106.3	70 - 130				04/08/11
Tin	7440-31-5		113	mg/kg	111.8	70 - 130				04/08/11
Uranium	7440-61-1		111	mg/kg	109.6	70 - 130				04/08/11
Arsenic	7440-38-2		111	mg/kg	109.4	70 - 130				04/08/11
Selenium	7782-49-2		112	mg/kg	110.9	70 - 130				04/08/11
MSD			**QC Sample #52813**							
			Original 111883001					**Paired 52812**		

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Manganese	7439-96-5		87.2	mg/kg	89.4	70 - 130	25.50	30	X	04/08/11
Nickel	7440-02-0		107	mg/kg	110	70 - 130	1.40	30		04/08/11
Silver	7440-22-4		107	mg/kg	109.4	70 - 130	0.40	30		04/08/11
Antimony	7440-36-0		100	mg/kg	102.9	70 - 130	0.10	30		04/08/11
Barium	7440-39-3		101	mg/kg	103.9	70 - 130	5.50	30		04/08/11
Beryllium	7440-41-7		107	mg/kg	109.6	70 - 130	0.20	30		04/08/11
Cadmium	7440-43-9		107	mg/kg	109.6	70 - 130	0.20	30		04/08/11
Chromium	7440-47-3		112	mg/kg	114.8	70 - 130	0.30	30		04/08/11
Cobalt	7440-48-4		107	mg/kg	109.2	70 - 130	0.60	30		04/08/11
Copper	7440-50-8		105	mg/kg	108	70 - 130	1.50	30		04/08/11
Vanadium	7440-62-2		100	mg/kg	102.8	70 - 130	5.50	30		04/08/11
Zinc	7440-66-6		101	mg/kg	103.4	70 - 130	2.70	30		04/08/11
Lead	7439-92-1		108	mg/kg	110.5	70 - 130	0.70	30		04/08/11
Mercury	7439-97-6		2.19	mg/kg	112	70 - 130	2.20	30		04/08/11
Strontium	7440-24-6		111	mg/kg	113.6	70 - 130	1.40	30		04/08/11
Thallium	7440-28-0		104	mg/kg	106.7	70 - 130	0.40	30		04/08/11
Tin	7440-31-5		109	mg/kg	111.5	70 - 130	0.30	30		04/08/11
Uranium	7440-61-1		107	mg/kg	110	70 - 130	0.40	30		04/08/11
Arsenic	7440-38-2		106	mg/kg	109	70 - 130	0.40	30		04/08/11
Selenium	7782-49-2		107	mg/kg	110	70 - 130	0.80	30		04/08/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

QC Batch 180736
Associated Samples 111947001

Test Anions by Ion Chromatography (Solid)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #52926**							
Nitrate-N	NO3-N		<9.7E-3	ug/mL					U	04/06/11
LCS			**QC Sample #52927**							
Nitrate-N	NO3-N		0.878	ug/mL	99.2	90 - 110				04/06/11
MS			**QC Sample #52928**							
			Original 111946001							
Nitrate-N	NO3-N		22.7	mg/kg	101.7	80 - 120				04/06/11
MSD			**QC Sample #52929**							
			Original 111946001					**Paired**	**52928**	
Nitrate-N	NO3-N		23.1	mg/kg	102.3	80 - 120	0.60	30		04/06/11
DUP			**QC Sample #52930**							
			Original 111946001							
Nitrate-N	NO3-N		1.01	mg/kg			4.50	30	B	04/06/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

QC Batch 180954
Associated Samples 111947001

Test Hexavalent chromium

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #53118**							
Hexavalent chromium	18540-29-9		<0.096	ug/g					U	04/12/11
LCS			**QC Sample #53119**							
Hexavalent chromium	18540-29-9		3.56	ug/g	90.1	90 - 110				04/12/11
DUP			**QC Sample #53120**							
			Original 111862001							
Hexavalent chromium	18540-29-9		<0.098	ug/g			22.10	30	U	04/12/11
MS			**QC Sample #53121**							
			Original 111862001							
Hexavalent chromium	18540-29-9		2.59	ug/g	67.7	75 - 125			N	04/12/11
PSTSPK			**QC Sample #53122**							
Hexavalent chromium	18540-29-9		0.0407	ug/g	76.5	85 - 115			N	04/12/11
IMS			**QC Sample #53123**							
			Original 111862001							
Hexavalent chromium	18540-29-9		317	ug/g	83.3	75 - 125			D	04/12/11

Quality Control Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

QC Batch 180978
Associated Samples 111947001

Test SW-846 8270D Semivolatiles (PAHSIM)

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #53166**						
Naphthalene	91-20-3		<200	ug/kg				U	04/13/11
Acenaphthylene	208-96-8		<200	ug/kg				U	04/13/11
Acenaphthene	83-32-9		<200	ug/kg				U	04/13/11
Fluorene	86-73-7		<200	ug/kg				U	04/13/11
Phenanthrene	85-01-8		<200	ug/kg				U	04/13/11
Anthracene	120-12-7		<200	ug/kg				U	04/13/11
Fluoranthene	206-44-0		<200	ug/kg				U	04/13/11
Pyrene	129-00-0		<200	ug/kg				U	04/13/11
Benzo(a)anthracene	56-55-3		<200	ug/kg				U	04/13/11
Chrysene	218-01-9		<200	ug/kg				U	04/13/11
Benzo(b)fluoranthene	205-99-2		<200	ug/kg				U	04/13/11
Benzo(k)fluoranthene	207-08-9		<200	ug/kg				U	04/13/11
Benzo(a)pyrene	50-32-8		<200	ug/kg				U	04/13/11
Indeno(1,2,3-cd)pyrene	193-39-5		<200	ug/kg				U	04/13/11
Dibenzo(a,h)anthracene	53-70-3		<200	ug/kg				U	04/13/11
Benzo(g,h,i)perylene	191-24-2		<200	ug/kg				U	04/13/11
LCS			**QC Sample #53167**						

Quality Control Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Naphthalene	91-20-3		5500	ug/kg	92.2	50 - 140				04/13/11
Acenaphthene	83-32-9		5800	ug/kg	97.4	75 - 121				04/13/11
Fluorene	86-73-7		5800	ug/kg	97.3	50 - 140				04/13/11
Anthracene	120-12-7		5900	ug/kg	98.8	50 - 140				04/13/11
Pyrene	129-00-0		6300	ug/kg	104.5	78 - 134				04/13/11
Benzo(a)pyrene	50-32-8		5800	ug/kg	96.6	50 - 140				04/13/11
LCSD			**QC Sample #53168**							
									Paired	**53167**
Naphthalene	91-20-3		6100	ug/kg	101.5	50 - 140	9.60	30		04/13/11
Acenaphthene	83-32-9		6600	ug/kg	110.1	75 - 121	12.20	30		04/13/11
Fluorene	86-73-7		6600	ug/kg	109.7	50 - 140	12.00	30		04/13/11
Anthracene	120-12-7		6600	ug/kg	110.1	50 - 140	10.80	30		04/13/11
Pyrene	129-00-0		7000	ug/kg	116.7	78 - 134	11.00	30		04/13/11
Benzo(a)pyrene	50-32-8		6600	ug/kg	110.2	50 - 140	13.20	30		04/13/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

QC Batch 180676
Associated Samples 111947001

Test ICP-2008 MS All possible metal

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #52810**							
Manganese	7439-96-5		<0.10	ug/L					U	04/08/11
Nickel	7440-02-0		<0.20	ug/L					U	04/08/11
Silver	7440-22-4		<0.10	ug/L					U	04/08/11
Antimony	7440-36-0		<0.30	ug/L					U	04/08/11
Barium	7440-39-3		<0.20	ug/L					U	04/08/11
Beryllium	7440-41-7		<0.10	ug/L					U	04/08/11
Cadmium	7440-43-9		<0.10	ug/L					U	04/08/11
Chromium	7440-47-3		<0.50	ug/L					U	04/08/11
Cobalt	7440-48-4		<0.050	ug/L					U	04/08/11
Copper	7440-50-8		<0.10	ug/L					U	04/08/11
Vanadium	7440-62-2		<0.20	ug/L					U	04/08/11
Zinc	7440-66-6		<0.80	ug/L					U	04/08/11
Lead	7439-92-1		<0.10	ug/L					U	04/08/11
Mercury	7439-97-6		<0.050	ug/L					U	04/08/11
Strontium	7440-24-6		<0.10	ug/L					U	04/08/11
Thallium	7440-28-0		<0.050	ug/L					U	04/08/11
Tin	7440-31-5		<0.050	ug/L					U	04/08/11
Uranium	7440-61-1		<0.050	ug/L					U	04/08/11
Arsenic	7440-38-2		<0.40	ug/L					U	04/08/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111947

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		<0.30	ug/L					U	04/08/11

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111947

QC Batch 180688
Associated Samples 111947002

Test SW-846 8260B Volatiles, separate prep

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #52835**							
1,1-Dichloroethene	75-35-4		<1	ug/kg					U	04/07/11
Trichloroethene	79-01-6		<1	ug/kg					U	04/07/11
Benzene	71-43-2		<1	ug/kg					U	04/07/11
Toluene	108-88-3		<1	ug/kg					U	04/07/11
Chlorobenzene	108-90-7		<1	ug/kg					U	04/07/11
Carbon tetrachloride	56-23-5		<1	ug/kg					U	04/07/11
trans-1,2-Dichloroethene	156-60-5		<1	ug/kg					U	04/07/11
cis-1,2-Dichloroethene	156-59-2		<1	ug/kg					U	04/07/11
LCS			**QC Sample #52836**							
1,1-Dichloroethene	75-35-4		21	ug/kg	84.7	50 - 131				04/07/11
Trichloroethene	79-01-6		26	ug/kg	106	66 - 119				04/07/11
Benzene	71-43-2		25	ug/kg	100.9	73 - 123				04/07/11
Toluene	108-88-3		29	ug/kg	115.3	77 - 128				04/07/11
Chlorobenzene	108-90-7		29	ug/kg	114.2	81 - 126				04/07/11
trans-1,2-Dichloroethene	156-60-5		21	ug/kg	84.5	75 - 125				04/07/11
cis-1,2-Dichloroethene	156-59-2		22	ug/kg	88.9	75 - 125				04/07/11

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111947

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #52837**							
			Original 111947002							
1,1-Dichloroethene	75-35-4	<1	21	ug/kg	90.7	75 - 125				04/07/11
Trichloroethene	79-01-6	<1	26	ug/kg	112.1	75 - 125				04/07/11
Benzene	71-43-2	<1	25	ug/kg	106.8	75 - 125				04/07/11
Toluene	108-88-3	<1	27	ug/kg	114.7	75 - 125				04/07/11
Chlorobenzene	108-90-7	<1	26	ug/kg	114.2	75 - 125				04/07/11
trans-1,2-Dichloroethene	156-60-5	<1	18	ug/kg	76.2	75 - 125				04/07/11
cis-1,2-Dichloroethene	156-59-2	<1	19	ug/kg	80.6	75 - 125				04/07/11
MSD			**QC Sample #52838**							
			Original 111947002					**Paired**	**52837**	
1,1-Dichloroethene	75-35-4	<1	19	ug/kg	77	75 - 125	16.30	30		04/07/11
Trichloroethene	79-01-6	<1	30	ug/kg	120.2	75 - 125	7.00	30		04/07/11
Benzene	71-43-2	<1	27	ug/kg	106.9	75 - 125	0.10	30		04/07/11
Toluene	108-88-3	<1	29	ug/kg	115	75 - 125	0.30	30		04/07/11
Chlorobenzene	108-90-7	<1	29	ug/kg	116	75 - 125	1.60	30		04/07/11
trans-1,2-Dichloroethene	156-60-5	<1	19	ug/kg	76.4	75 - 125	0.30	30		04/07/11
cis-1,2-Dichloroethene	156-59-2	<1	21	ug/kg	85.8	75 - 125	6.20	30		04/07/11

Quality Control Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

QC Batch 180663
Associated Samples 111947001

Test Extractable Diesel and Petroleum

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #111947001**							
o-Terphenyl	84-15-1				114.3	70 - 130				04/12/11
BLANK			**QC Sample #52775**							
o-Terphenyl	84-15-1				73.3	70 - 130				04/12/11
LCS			**QC Sample #52776**							
o-Terphenyl	84-15-1				72.2	50 - 150				04/12/11
MS			**QC Sample #52777**							
			Original 111947001							
o-Terphenyl	84-15-1				99.8	50 - 150				04/12/11
MSD			**QC Sample #52778**							
			Original 111947001						**Paired 52777**	
o-Terphenyl	84-15-1				101	50 - 150	1.20	30		04/12/11

Quality Control Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

QC Batch 180664
Associated Samples 111947001

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #111947001**							
Tetrachloro-m-xylene	877-09-8				83.7	60 - 140				04/18/11
Decachlorobiphenyl	2051-24-3				83.2	60 - 140				04/18/11
BLANK			**QC Sample #52779**							
Tetrachloro-m-xylene	877-09-8				82.4	60 - 140				04/18/11
Decachlorobiphenyl	2051-24-3				71.2	60 - 140				04/18/11
LCS			**QC Sample #52780**							
Tetrachloro-m-xylene	877-09-8				83.3	60 - 124				04/18/11
Decachlorobiphenyl	2051-24-3				83.3	72 - 125				04/18/11
MS			**QC Sample #52781**							
			Original 111947001							
Tetrachloro-m-xylene	877-09-8				87.1	51 - 120				04/18/11
Decachlorobiphenyl	2051-24-3				93.2	66 - 126				04/18/11
MSD			**QC Sample #52782**							
			Original 111947001					**Paired**	**52781**	
Tetrachloro-m-xylene	877-09-8				82	51 - 120	6.00			04/18/11
Decachlorobiphenyl	2051-24-3				73.3	66 - 126	23.90			04/18/11

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111947

QC Batch 180688
Associated Samples 111947002

Test SW-846 8260B Volatiles, separate prep

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #111947002**							
1,2-Dichloroethane-d4	17060-07-0				124.2	77 - 137				04/07/11
Toluene-d8	2037-26-5				112.6	78 - 122				04/07/11
4-Bromofluorobenzene	460-00-4				92.1	66 - 125				04/07/11
BLANK			**QC Sample #52835**							
1,2-Dichloroethane-d4	17060-07-0				118.8	77 - 137				04/07/11
Toluene-d8	2037-26-5				109.5	78 - 122				04/07/11
4-Bromofluorobenzene	460-00-4				107.1	66 - 125				04/07/11
LCS			**QC Sample #52836**							
1,2-Dichloroethane-d4	17060-07-0				120.6	77 - 137				04/07/11
Toluene-d8	2037-26-5				114	78 - 122				04/07/11
4-Bromofluorobenzene	460-00-4				116.4	66 - 125				04/07/11
MS			**QC Sample #52837**							
			Original 111947002							
1,2-Dichloroethane-d4	17060-07-0				123.6	77 - 137				04/07/11
Toluene-d8	2037-26-5				114.5	78 - 122				04/07/11

Quality Control Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF111947

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
4-Bromofluorobenzene	460-00-4				109.5	66 - 125				04/07/11
MSD			**QC Sample #52838**							
			Original	**111947002**				**Paired**	**52837**	
1,2-Dichloroethane-d4	17060-07-0				123.2	77 - 137	0.30	30		04/07/11
Toluene-d8	2037-26-5				114.4	78 - 122	0.10	30		04/07/11
4-Bromofluorobenzene	460-00-4				110	66 - 125	0.40	30		04/07/11

Quality Control Report

Attention Michael Neely
Department Organic, Semivolatiles

Group # WSCF111947

QC Batch 180978
Associated Samples 111947001

Test SW-846 8270D Semivolatiles (PAHSIM)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #111947001**							
Nitrobenzene-d5	4165-60-0				100	53 - 129				04/13/11
2-Fluorobiphenyl	321-60-8				112.3	36 - 141				04/13/11
Terphenyl-d14	98904-43-9				132	61 - 142				04/13/11
BLANK			**QC Sample #53166**							
Nitrobenzene-d5	4165-60-0				104.7	53 - 129				04/13/11
2-Fluorobiphenyl	321-60-8				115.5	36 - 141				04/13/11
Terphenyl-d14	98904-43-9				138.8	61 - 142				04/13/11
LCS			**QC Sample #53167**							
Nitrobenzene-d5	4165-60-0				97.7	53 - 129				04/13/11
2-Fluorobiphenyl	321-60-8				106.1	36 - 141				04/13/11
Terphenyl-d14	98904-43-9				116.1	61 - 142				04/13/11
LCSD			**QC Sample #53168**							
								Paired	**53167**	
Nitrobenzene-d5	4165-60-0				108.5	53 - 129	10.50			04/13/11
2-Fluorobiphenyl	321-60-8				119.2	36 - 141	11.60			04/13/11
Terphenyl-d14	98904-43-9				131.6	61 - 142	12.50			04/13/11

Analytical Comment Report

Attention: Michael Neely **Group #** WSCF111947

111947001	**B297H6**

PAHSIM: LCS/LCSD ran for prep on this batch of samples in lieu of MS/MSD.

Department Inorganic

Analyte Boron - ICP-6010 - All possible metals
[1] X: Iron interference.

Quality Control Comments

Department Inorganic

52812 B2BFH5(111883001MS)

Analyte Manganese - ICP-2008 MS All possible metal
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

52813 B2BFH5(111883001MSD)

Analyte Manganese - ICP-2008 MS All possible metal
[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 7 pages
Including cover page

Waste Sampling and Characterization Facility
P.O. Box 1970 S3-30, Richland WA 99352
Phone: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

WSCF Laboratory
PO Box 650 S3-30
Richland, WA 99352

ATTN: Michael Neely

Customer Code: CHPRC
PO #: 401328/ES20
Work Order #: 111947
Profile #: F10-295-012
Proj. Mgr.:
Phone:

The following samples were received from you on 4/5/2011 10:10:00 AM. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample #	Sample ID	Matrix	Collected	Received
		Tests scheduled		
111947001	B297H6	SOIL	4/5/2011 09:12	4/5/2011 10:10
		2008-S; 6010-S; CR6-S; DRY-WEIGHT; IC-S; PAHSIM-S; PCB-SA; TPHDWA-S		
111947002	B297J8	SOIL	4/5/2011 09:12	4/5/2011 10:10
		8260V-S; DRY-WEIGHT		

Test Acronym Description

Test Acronym	Description
2008-S	ICP-MS (S)
6010-S	ICP-AES (S)
8260V-S	Volatiles by 8260B (S)
CR6-S	Cr6 (S)
DRY-WEIGHT	Dry Weight as Pct Moisture
IC-S	Anions by IC (S)
PAHSIM-S	PAHSIM by 8270D SemiVOA (S)
PCB-SA	PCB (8082) (S) ASE
TPHDWA-S	TPHD-WA (S)

Sample Receipt

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F10-295-012 — PAGE 1 OF 2

COLLECTOR: KC Patterson, CHPRC	COMPANY CONTACT: ~~WIDRIG, DL~~ BAUER, RC RLB 3/23/11	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: ~~WIDRIG, DL~~ BAUER, RC RLB 3/23/11
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days	AIR QUALITY: ☐	SAMPLING LOCATION: 600-282 Contingency 2
PROJECT DESIGNATION: ARRA 600-282 Confirmatory Sampling - Surface - Soil	SAF NO.: F10-295	ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-15
ACTUAL SAMPLE DEPTH: 8' BGS	COA: 302221ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	SHIPPED TO: Waste Sampling & Characterization
OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

111947

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	30 Days	28 Days/48 Hours
TYPE OF CONTAINER	aG	G/P	G/P	G/P
NO. OF CONTAINER(S)	1	1	1	1
VOLUME	250mL	250mL	60mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196 (Hexavalent Chromium);	IC Anions - 300.0 (Nitrogen in Nitrate);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
0297HB	SOIL	4-5-11	0912	✓	✓	✓	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson, CHPRC	APR 05 2011 1010	A Frazier	APR 05 2011 1010

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-295-012** | **PAGE 2 OF 2**

COLLECTOR ? Patterson	**COMPANY CONTACT** ~~WIDRIG, DL~~ BAUER, RL	**TELEPHONE NO.** 376-2858	**PROJECT COORDINATOR** ~~WIDRIG, DL~~ BAUER, RL	**PRICE CODE** 8C
SAMPLING LOCATION 600-282 Contingency 2	**PROJECT DESIGNATION** RB 3/23/11 ARRA 600-282 Confirmatory Sampling - Surface - Soil		**SAF NO.** RB 3/23/11 F10-295	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-15	**ACTUAL SAMPLE DEPTH** 8' BGS	**COA** 302221ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

DATA TURNAROUND 15 Days / 15 Days

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 401328ES20.
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** All VOA samples can be shipped to off-site laboratory on cool 4 degrees C.
** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Semi-VOA - 8270 (TCL) {Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene}; TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range}; PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260};
(2) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Tin, Uranium}; ICP Metals - 6010 (Add-On) {Boron, Lithium};

ORIGINAL

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-295-024

COLLECTOR: KC Patterson, CHPRC

COMPANY CONTACT: ~~WIDRIG, DL~~ BAUER, RL

TELEPHONE NO.: 376-2858

PROJECT COORDINATOR: ~~WIDRIG, DL~~ BAUER, RL

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: 600-282 Contingency 2

PROJECT DESIGNATION: RB/3/23/11

SAF NO.: RB 3/23/11 F10-295

AIR QUALITY:

ICE CHEST NO.:

ARRA 600-282 Confirmatory Sampling - Surface - Soil

FIELD LOGBOOK NO.: HNF.N'507.15

ACTUAL SAMPLE DEPTH: 8' BGS

COA: 302221E510

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C
HOLDING TIME	14 Days
TYPE OF CONTAINER	aGc
NO. OF CONTAINER(S)	5
VOLUME	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B297J8	SOIL	4-5-11	0912	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC APR 05 2011	1010	JA Frazier APR 05 2011	1010
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-295-024

PAGE 2 OF 2

COLLECTOR: KC Patterson	COMPANY CONTACT: ~~WIDRIG, DL~~ BAKER, RG	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: ~~WIDRIG, DL~~ BAKER, RG	PRICE CODE: BC
SAMPLING LOCATION: CHPRC 600-282 Contingency 2	PROJECT DESIGNATION: RB 3/23/11 ARRA 600-282 Confirmatory Sampling - Surface - Soil		SAF NO.: RB 3/23/11 F10-295	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-15	ACTUAL SAMPLE DEPTH: 8'bgs	COA: 302221ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

DATA TURNAROUND: 15 Days / 15 Days

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 401328ES20.
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 5 bottles for low level analysis.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
** All VOA samples can be shipped to off-site laboratory on cool 4 degrees C.
** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride};

ORIGINAL

A 6003-618 (REV 2)

Chain of Custody

VOC Soil and Sediment Sampling

Published Date: 10/22/10 Effective Date: 10/22/10

Appendix A - Sample Record Sheet, -7°C and -20°C Only (Spin Bars)

SAMPLE RECORD SHEET FOR VOC SAMPLE COLLECTION

Location:

Sampler Initials and Date:

Sample Number[1]	Sample Suffix	Initial Weight[2] (grams)	Total Weight[3] (grams)	Soil Weight[4] (grams)
B297J8	K	28.35	33.60	5.25
B297J8	L	28.39	33.92	5.53
B297J8	M	28.35	33.72	5.37
B297J8	N	28.71	34.11	5.40
B297J8	P	28.50	33.54	5.04

[1] Enter sample number associated with the sampling event.

[2] Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[3] Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[4] Soil weight is the vial with sample minus Initial Weight.

A-6005-526 (REV 0)