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Fluor Hanford
 WSCF Analytical Lab
 P.O. Box 1000
 Richland, WA 99352
 Telephone 373-7495
 Telefax 372-0456

FLUOR**Memorandum**

M4W41-SLF-08-1072

To: H. Hampt E6-35 Date: September 25, 2008

From: S. L. Fitzgerald, Manager *Moshir Hanffan for SLF*
 WSCF Analytical Lab

cc: w/Attachments
 T. F. Dale S3-30 J. E. Trechter S3-30
 A. J. Kopriva S3-30 S. J. Trent E6-35
 H. K. Meznarich S3-30 File/LB
 P. D. Mix S3-30

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20081729 – SAF NUMBER F08-146

Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002
 (2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF20081729:

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

SLF/grf

Attachments 4

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M4W41-SLF-08-1072

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081729
Data Deliverable Date: 29-sep-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-146	B1WPH8	W08GR03329	WATER

M4W41-SLF-08-1072

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Introduction

One (1) S&GRP sample was received at the WSCF Laboratory on August 13, 2008. This sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

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 stamped “ICED” by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report*, pages 13 through 15, for a complete listing of approved analytical methods.

Inorganic Comments

Anions – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 17 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WPW9 (SDG# 20081731, SAF# F08-155.)

All QC controls are within the established limits.

ICP-AES Metals – 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 per the GRP Letter of Instruction. See page 18 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WR09 (SDG# 20081807, SAF# F08-155).
- Iron – Sample concentration exceeded the spiking levels by a factor of four. Spike recoveries are not valid. Check standard was analyzed to ensure Iron linearity because sample results were greater than the calibration standard.

All QC controls are within the established limits.

ICP-MS Metals – 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 per the GRP Letter of Instruction. See pages 19 through 20 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WPW6 (SDG# 20081698, SAF# F08-155), B1WPX2 (SDG# 20081746, SAF# F08-155) and B1WRF6 (SDG# 20081732, SAF# F08-094).
- The sample concentration of Manganese in the MS/MSD was high, therefore, the recovery for this analyte did not meet the established limit of the laboratory for QC samples B1WPW6 and B1WPX2. The Manganese analyte in the sample was X flagged.

All other QC controls are within the established limits.

Organic Comments

NWTPH-D – 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 per the GPP Letter of Instruction. See page 24 for QC details.

All 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 per the GRP Letter of Instruction. See pages 25 through 26 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WPH7 (SDG# 20081710, SAF# F08-146).

All QC controls are within the established limits.

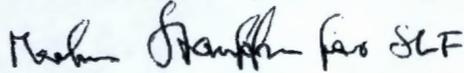
Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike (*Matrix Spikes apply only to Neptunium, Technetium & Tritium and Matrix Spike Duplicate applies to Neptunium*), Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 29 through 32 for QC details. Analytical Note(s):

- Rad Chem analyses requested to be performed on this sample included: Tritium Analysis by LSC, Sr-89/90, Tc-99 by LSC, and Uranium Isotopic by AEA.
- Sr 89/90: Duplicate was analyzed on sample# B1WPH4, (SDG#20081675, SAF# F08-146).
- TC-99 by LSC: Matrix Spike and Duplicate was analyzed on sample# B1WPH8, (SDG#20081729, SAF# F08-146).

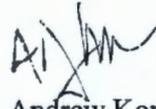
- Tritium Analysis: Duplicate was analyzed on sample# B1WPH4, (SDG#20081675, SAF# F08-146).
- Uranium by AEA: Duplicate was analyzed on sample# B1WPH4, (SDG#20081675, SAF# F08-146).

All other QC controls are within the established limits.

I certify that this data package is in compliance with the LOI, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager and Client Services as verified by the following signatures.



Scot L. Fitzgerald
WSCF Analytical Laboratory Manager



Andrew Kopriva
WSCF Client Services

M4W41-SLF-08-1072

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 26 pages
Including cover page

**WSCF
ANALYTICAL RESULTS REPORT**

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: M. Stauffer 9/25/08
Client Services: A. Kopriva 9/25/08

All results are reported on an "as received" basis unless otherwise noted in the comment section.

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Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20081729
Report Date: 25-sep-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20081729

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37599	2	38044	42392	BLANK		Anions by Ion Chromatography
37599	11	38044	42392	BLANK		Anions by Ion Chromatography
37599	3	38044	42392	LCS		Anions by Ion Chromatography
37599	10	38044	42392	SAMPLE	W08GR03329	Anions by Ion Chromatography
37599	5	38044	42392	DUP	W08GR03332	Anions by Ion Chromatography
37599	6	38044	42392	MS	W08GR03332	Anions by Ion Chromatography
37599	7	38044	42392	MSD	W08GR03332	Anions by Ion Chromatography
37599	7	38044	42392	SPK-RPD	W08GR03332	Anions by Ion Chromatography
37684	1	38119	42479	BLANK		ICP-200.8 MS All possible meta
37684	2	38119	42479	LCS		ICP-200.8 MS All possible meta
37684	4	38119	42479	MS	W08GR03308	ICP-200.8 MS All possible meta
37684	5	38119	42479	MSD	W08GR03308	ICP-200.8 MS All possible meta
37684	5	38119	42479	SPK-RPD	W08GR03308	ICP-200.8 MS All possible meta
37684	22	38119	42479	SAMPLE	W08GR03329	ICP-200.8 MS All possible meta
37684	7	38119	42479	MS	W08GR03334	ICP-200.8 MS All possible meta
37684	8	38119	42479	MSD	W08GR03334	ICP-200.8 MS All possible meta
37684	8	38119	42479	SPK-RPD	W08GR03334	ICP-200.8 MS All possible meta
37684	10	38119	42479	MS	W08GR03344	ICP-200.8 MS All possible meta
37684	11	38119	42479	MSD	W08GR03344	ICP-200.8 MS All possible meta
37684	11	38119	42479	SPK-RPD	W08GR03344	ICP-200.8 MS All possible meta
37992	1	38384	42870	BLANK		ICP Metals Analysis, Grd H20 P
37992	2	38384	42870	LCS		ICP Metals Analysis, Grd H20 P
37992	11	38384	42870	SAMPLE	W08GR03329	ICP Metals Analysis, Grd H20 P
37992	4	38384	42870	MS	W08GR03437	ICP Metals Analysis, Grd H20 P
37992	5	38384	42870	MSD	W08GR03437	ICP Metals Analysis, Grd H20 P
37992	5	38384	42870	SPK-RPD	W08GR03437	ICP Metals Analysis, Grd H20 P

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20081729

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			42588	BLANK		VOA Ground Water Protection
			42588	LCS		VOA Ground Water Protection
			42588	MS	W08GR03313	VOA Ground Water Protection
			42588	MSD	W08GR03313	VOA Ground Water Protection
			42588	SPK-RPD	W08GR03313	VOA Ground Water Protection
			42588	SAMPLE	W08GR03329	VOA Ground Water Protection
			42588	SURR	W08GR03329	VOA Ground Water Protection
			42842	BLANK		NWTPH-D TPH Diesel Range (Wa)
			42842	LCS		NWTPH-D TPH Diesel Range (Wa)
			42842	MS	W08GR03329	NWTPH-D TPH Diesel Range (Wa)
			42842	MSD	W08GR03329	NWTPH-D TPH Diesel Range (Wa)
			42842	SAMPLE	W08GR03329	NWTPH-D TPH Diesel Range (Wa)
			42842	SPK-RPD	W08GR03329	NWTPH-D TPH Diesel Range (Wa)
			42842	SURR	W08GR03329	NWTPH-D TPH Diesel Range (Wa)

W13q Worklist/Batch/QC Report for Group# WSCF20081729

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37728	1	38162	42708	BLANK		Strontium 89/90
37728	2	38162	42708	LCS		Strontium 89/90
37728	3	38162	42708	DUP	W08GR03265	Strontium 89/90
37728	12	38162	42708	SAMPLE	W08GR03329	Strontium 89/90
37728	13	38162	42708	SURR	W08GR03329	Strontium 89/90
37952	1	38376	42883	BLANK		Tritium by Liq Sct column prep
37952	2	38376	42883	LCS		Tritium by Liq Sct column prep
37952	4	38376	42883	DUP	W08GR03265	Tritium by Liq Sct column prep
37952	3	38376	42883	MS	W08GR03265	Tritium by Liq Sct column prep
37952	9	38376	42883	SAMPLE	W08GR03329	Tritium by Liq Sct column prep
37945	1	38370	42888	BLANK		TC99 by Liquid Scin.
37945	2	38370	42888	LCS		TC99 by Liquid Scin.
37945	4	38370	42888	DUP	W08GR03329	TC99 by Liquid Scin.
37945	3	38370	42888	MS	W08GR03329	TC99 by Liquid Scin.
37945	5	38370	42888	SAMPLE	W08GR03329	TC99 by Liquid Scin.
38048	1	38467	42906	BLANK		Uranium Isotopics by AEA
38048	2	38467	42906	LCS		Uranium Isotopics by AEA
38048	3	38467	42906	DUP	W08GR03265	Uranium Isotopics by AEA
38048	12	38467	42906	SAMPLE	W08GR03329	Uranium Isotopics by AEA
38048	13	38467	42906	SURR	W08GR03329	Uranium Isotopics by AEA

WSCF

METHOD REFERENCES REPORT

Department: Inorganic

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 or industry 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 the 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-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE HEIS 6010_METALS_ICP Inductively Coupled Plasma-Atomic Emmision Spectrometry
LA-505-412	LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY EPA-600/R-94-111 200.8 DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS HEIS 200.8_METALS_ICPMS Inductively Coupled Plasma - Mass Spectrometry HEIS RADISOTOPES_ICPMS Radioisotopes by ICP/MS
LA-533-410	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 referenced regulatory or industry methods is available online at <http://www2.rl.gov/phmc/as-dol>.

Report Date: 25-sep-2008

Report#: WSCF20081729

Report WGPPM/5.2

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WSCF

METHOD REFERENCES REPORT

Department: Organic

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 or industry 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 the 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	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846
	EPA SW-846 8000B DETERMINATIVE CHROMATOGRAPHIC 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)
LA-523-493	NWTPH-Diesel and/or Gasoline
	HEIS WTPH DIESEL (HEIS) Total Petroleum Hydrocarbons in Diesel
	WDOE TPHD Total Petroleum Hydrocarbons in Diesel

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <http://www2.rl.gov/phmc/as-dol>.

Report Date: 25-sep-2008
Report#: WSCF20081729
Report WGPPM/5.2

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WSCF

METHOD REFERENCES REPORT

Department: Radiochemistry

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 or industry 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 the 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-508-415	LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS
HEIS ALPHA_GPC	GROSS ALPHA GPC
HEIS BETA_GPC	GROSS BETA GPC
HEIS SRTOT_SEP_PRECIP_GPC	Strontium 89/90
LA-508-421	LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER
HEIS ALPHA_LSC	A/B Liquid Scintillation
HEIS BETA_LSC	A/B Liquid Scintillation
HEIS TC99_3MDSK_LSC	TC99 by Liquid Scintillation
HEIS TRITIUM_EIE_LSC	Tritium Liquid Scintillation
LA-508-471	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP
HEIS PUIISO_IE_PRECIP_AEA	Plutonium by Alpha Energy Analysis
HEIS RAISO_AEA	Radium-226

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <http://www2.rl.gov/phmc/as-dol>.

Report Date: 25-sep-2008
Report#: WSCF20081729
Report WGPPM/5.2

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-146
Sample # W08GR03329
Client ID: B1WPH8

Group #: WSCF20081729
Department: Inorganic
Sampled: 08/13/08
Received: 08/13/08

TRENT
WSCF

Matrix: WATER

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Nitrogen in Nitrate	NO3-N	LA-533-410		3.00	mg/L			1.00	0.012		08/13/08
ICP Metals Analysis, Grd H2O P Prep											
ICP Metals Analysis, Grd H2O P											
Iron	7439-89-6	LA-505-411		1.27e+03	ug/L			1.00	25		09/15/08
ICP-200.8 MS All possible meta Prep											
ICP-200.8 MS All possible meta											
Manganese	7439-96-5	LA-505-412	X	106	ug/L			1.00	0.100		08/19/08
Chromium	7440-47-3	LA-505-412		53.1	ug/L			1.00	0.500		08/19/08
Arsenic	7440-38-2	LA-505-412		1.66	ug/L			1.00	0.400		08/19/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

J - Analyte < lowest calibration but > = MDL.(org)

U - Analyzed for but not detected above limiting criteria.(org)

U - Analyzed for but not detected above limiting criteria(inorg)

X - Other flags/notes described in the comments/narrative(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081729
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 08/13/08
 Receive Date: 08/13/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03332											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Nitrogen in Nitrate	NO3-N	<0.6171		RPD			n/a	20.000	U	08/13/08
MS	Nitrogen in Nitrate	NO3-N	0.41659	93.406	% Recov	80.000	120.000				08/13/08
MSD	Nitrogen in Nitrate	NO3-N	0.422249	94.675	% Recov	80.000	120.000				08/13/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	94.675		RPD			1.349	20.000		08/13/08
BATCH QC											
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	08/13/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	08/13/08
LCS	Nitrogen in Nitrate	NO3-N	89.5856	99.429	% Recov	80.000	120.000				08/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081729
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 08/22/08
 Receive Date: 08/24/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03437											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Iron	7439-89-6	-1231	-123.100	% Recov	75.000	125.000			•	09/15/08
MSD	Iron	7439-89-6	-393	-39.300	% Recov	75.000	125.000			•	09/15/08
SPK-RPD	Iron	7439-89-6	-39.300		RPD			-103.202	20.000	•	09/15/08
BATCH QC											
BLANK	Iron	7439-89-6	<25	n/a	ug/L					U	09/15/08
LCS	Iron	7439-89-6	965.3	96.530	% Recov	80.000	120.000				09/15/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081729
 Matrix: WATER
 Test: ICP-200.8 MS All possible meta

Sample Date: 08/10/08
 Receive Date: 08/11/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03308											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Arsenic	7440-38-2	36.4	91.000	% Recov	70.000	130.000				08/19/08
MS	Chromium	7440-47-3	31.5	78.750	% Recov	70.000	130.000				08/19/08
MS	Manganese	7439-96-5	14	35.000	% Recov	70.000	130.000				08/19/08
MSD	Arsenic	7440-38-2	35.66	89.150	% Recov	70.000	130.000				08/19/08
MSD	Chromium	7440-47-3	30	75.000	% Recov	70.000	130.000				08/19/08
MSD	Manganese	7439-96-5	-22	-55.000	% Recov	70.000	130.000				08/19/08
SPK-RPD	Arsenic	7440-38-2	89.150		RPD			2.054	20.000		08/19/08
SPK-RPD	Chromium	7440-47-3	75.000		RPD			4.878	20.000		08/19/08
SPK-RPD	Manganese	7439-96-5	-55.000		RPD			-900.000	20.000		08/19/08
Lab ID: W08GR03334											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Chromium	7440-47-3	36.3	90.750	% Recov	70.000	130.000				08/19/08
MS	Manganese	7439-96-5	35.02	87.550	% Recov	70.000	130.000				08/19/08
MSD	Chromium	7440-47-3	38.43	96.075	% Recov	70.000	130.000				08/19/08
MSD	Manganese	7439-96-5	36.84	92.100	% Recov	70.000	130.000				08/19/08
SPK-RPD	Chromium	7440-47-3	96.075		RPD			5.701	20.000		08/19/08
SPK-RPD	Manganese	7439-96-5	92.100		RPD			5.065	20.000		08/19/08
Lab ID: W08GR03344											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Arsenic	7440-38-2	35.13	87.825	% Recov	70.000	130.000				08/19/08
MS	Chromium	7440-47-3	38.9	97.250	% Recov	70.000	130.000				08/19/08
MS	Manganese	7439-96-5	44	110.000	% Recov	70.000	130.000				08/19/08
MSD	Arsenic	7440-38-2	34.58	86.450	% Recov	70.000	130.000				08/19/08
MSD	Chromium	7440-47-3	30.5	76.250	% Recov	70.000	130.000				08/19/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081729
 Matrix: WATER
 Test: ICP-200.8 MS All possible meta

Sample Date: 08/14/08
 Receive Date: 08/14/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Manganese	7439-96-5	-8	-15.000	% Recov	70.000	130.000		*		08/19/08
SPK-RPD	Arsenic	7440-38-2	86.450		RPD			1.578	20.000		08/19/08
SPK-RPD	Chromium	7440-47-3	76.250		RPD			24.207	20.000	*	08/19/08
SPK-RPD	Manganese	7439-96-5	-15.000		RPD			263.158	20.000	*	08/19/08
BATCH QC											
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	08/19/08
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	08/19/08
BLANK	Manganese	7439-96-5	<0.1	n/a	ug/L					U	08/19/08
LCS	Arsenic	7440-38-2	36.39	90.975	% Recov	85.000	115.000				08/19/08
LCS	Chromium	7440-47-3	38.05	95.125	% Recov	85.000	115.000				08/19/08
LCS	Manganese	7439-96-5	37.98	94.950	% Recov	85.000	115.000				08/19/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-146

Group #: WSCF20081729
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>Manganese sample result too high for good spike recovery on 2 of 3 spiked samples. "X" flag.</p> <p>ICP-AES: [Sample W08GR3329] Iron sample result exceeds spiking range by a factor of 4 so spike recoveries are not valid. Check standard used to ensure iron linearity because sample result is greater than the calibration standard.</p>

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample

VALTEST - Test Validation
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-146
Sample # W08GR03329
Client ID: B1WPH8

TRENT

Matrix: WATER

Group #: WSCF20081729
Department: Organic
Sampled: 08/13/08
Received: 08/13/08

WSCF

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
NWTPH-D TPH Diesel Range (Wa) Prep											
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 74.0	ug/L			1.00	74		09/12/08
Kerosene	TPHKEROSENE	LA-523-493	U	< 98.0	ug/L			1.00	98		09/12/08
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		08/25/08
Trichloroethene	79-01-6	LA-523-455	J	3.20	ug/L			1.00	1.0		08/25/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		08/25/08
Toluene	108-88-3	LA-523-455	J	2.40	ug/L			1.00	1.0		08/25/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		08/25/08

MDL=Minimum Detection Limit

J - Analyte < lowest calibration but > = MDL.(org)

U - Analyzed for but not detected above limiting criteria(inorg)

RQ=Result Qualifier

U - Analyzed for but not detected above limiting criteria.(org)

X - Other flags/notes described in the comments/narrative(inorg)

TP Err=Total Propagated Error

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF

TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number: F08-146 :F08-146

Group #: WSCF20081729
Department: Organic

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units	
W08GR03329	B1WPH8	TRENT	VOA Ground Water Protection	SMP 8.960 Acetone	67-64-1	8.960266	BJ	28	ug/L
W08GR03329	B1WPH8	TRENT	VOA Ground Water Protection	SMP 9.940 Methylene Chloride	75-09-2	9.940933		1.6	ug/L

RQ=Result Qualifier

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

J - Analyte < lowest calibration but > = MDL.(org)

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Groundwater Remediation Program

WGPE v 5.2 Report#: WSCF20081729

Report Date: 25-sep-2008

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081729
 Matrix: WATER
 Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 08/13/08
 Receive Date: 08/13/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03329											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	ortho-Terphenyl	Surr	84-15-1	530.68	109.000	% Recov	70.000	130.000			09/12/08
MS	Total Pet. Hydrocarbons Diesel		TPHDIESEL	2780.2	115.000	% Recov	75.000	125.000			09/12/08
MSD	ortho-Terphenyl	Surr	84-15-1	582.56	120.000	% Recov	70.000	130.000			09/12/08
MSD	Total Pet. Hydrocarbons Diesel		TPHDIESEL	3005.2	124.000	% Recov	75.000	125.000			09/12/08
SPK-RPD	ortho-Terphenyl	Surr	84-15-1	120.000		RPD			9.607	20.000	09/12/08
SPK-RPD	Total Pet. Hydrocarbons Diesel		TPHDIESEL	124.000		RPD			7.531	20.000	09/12/08
SURR	ortho-Terphenyl	Surr	84-15-1	472.33	96.400	% Recov	70.000	130.000			09/12/08
BATCH QC											
BLANK	Kerosene		TPHKEROSENE	< 100	n/a	ug/L				U	09/12/08
BLANK	ortho-Terphenyl	Surr	84-15-1	106.15	106.000	% Recov	70.000	130.000			09/12/08
BLANK	Total Pet. Hydrocarbons Diesel		TPHDIESEL	< 75	n/a	ug/L				U	09/12/08
LCS	ortho-Terphenyl	Surr	84-15-1	557.72	112.000	% Recov	70.000	130.000			09/12/08
LCS	Total Pet. Hydrocarbons Diesel		TPHDIESEL	2839.4	114.000	% Recov	80.000	120.000			09/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20081729
 Matrix: WATER
 Test: VOA Ground Water Protection

Sample Date: 08/12/08
 Receive Date: 08/12/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
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Lab ID: W08GR03313
 BATCH QC ASSOCIATED WITH SAMPLE

MS	1,1-Dichloroethene	75-35-4	25.830	103.000	% Recov	63.000	117.000				08/25/08
MS	Benzene	71-43-2	23.210	92.800	% Recov	75.000	129.000				08/25/08
MS	4-Bromofluorobenzene(Surr)	480-00-4	47.610	95.200	% Recov	75.000	125.000				08/25/08
MS	Chlorobenzene	108-90-7	25.880	104.000	% Recov	79.000	119.000				08/25/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.930	106.000	% Recov	75.000	125.000				08/25/08
MS	Toluene-d8(Surr)	2037-26-5	48.480	97.000	% Recov	75.000	125.000				08/25/08
MS	Toluene	108-88-3	23.612	94.400	% Recov	76.000	120.000				08/25/08
MS	Trichloroethene	79-01-6	24.042	98.200	% Recov	73.000	123.000				08/25/08
MSD	1,1-Dichloroethene	75-35-4	25.510	102.000	% Recov	63.000	117.000				08/25/08
MSD	Benzene	71-43-2	22.720	90.900	% Recov	75.000	129.000				08/25/08
MSD	4-Bromofluorobenzene(Surr)	480-00-4	47.340	94.700	% Recov	75.000	125.000				08/25/08
MSD	Chlorobenzene	108-90-7	25.500	102.000	% Recov	79.000	119.000				08/25/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.570	105.000	% Recov	75.000	125.000				08/25/08
MSD	Toluene-d8(Surr)	2037-26-5	48.470	98.900	% Recov	75.000	125.000				08/25/08
MSD	Toluene	108-88-3	23.102	92.400	% Recov	76.000	120.000				08/25/08
MSD	Trichloroethene	79-01-6	23.172	92.700	% Recov	73.000	123.000				08/25/08
SPK-RPD	1,1-Dichloroethene	75-35-4	102.000		RPD			0.976	20.000		08/25/08
SPK-RPD	Benzene	71-43-2	90.900		RPD			2.069	20.000		08/25/08
SPK-RPD	4-Bromofluorobenzene(Surr)	480-00-4	94.700		RPD			0.527	20.000		08/25/08
SPK-RPD	Chlorobenzene	108-90-7	102.000		RPD			1.942	20.000		08/25/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	105.000		RPD			0.948	20.000		08/25/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	96.900		RPD			0.103	20.000		08/25/08
SPK-RPD	Toluene	108-88-3	92.400		RPD			2.141	20.000		08/25/08
SPK-RPD	Trichloroethene	79-01-6	92.700		RPD			3.706	20.000		08/25/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081729
 Matrix: WATER
 Test: VOA Ground Water Protection

Sample Date: 08/13/08
 Receive Date: 08/13/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03329											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	47.530	95.100	% Recov	75.000	125.000				08/25/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.060	106.000	% Recov	75.000	125.000				08/25/08
SURR	Toluene-d8(Surr)	2037-26-5	49.200	98.400	% Recov	75.000	125.000				08/25/08
BATCH QC											
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L					U	08/25/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L					U	08/25/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	47.620	95.200	% Recov	75.000	125.000				08/25/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L					U	08/25/08
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.980	106.000	% Recov	75.000	125.000				08/25/08
BLANK	Toluene-d8(Surr)	2037-26-5	48.510	97.000	% Recov	75.000	125.000				08/25/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L					U	08/25/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L					U	08/25/08
LCS	1,1-Dichloroethene	75-35-4	23.270	93.100	% Recov	75.000	125.000				08/25/08
LCS	Benzene	71-43-2	23.850	95.400	% Recov	75.000	125.000				08/25/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	47.180	94.400	% Recov	75.000	125.000				08/25/08
LCS	Chlorobenzene	108-90-7	25.990	104.000	% Recov	75.000	125.000				08/25/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.070	106.000	% Recov	75.000	125.000				08/25/08
LCS	Toluene-d8(Surr)	2037-26-5	48.840	97.700	% Recov	75.000	125.000				08/25/08
LCS	Toluene	108-88-3	24.790	99.200	% Recov	75.000	125.000				08/25/08
LCS	Trichloroethene	79-01-6	20.650	82.600	% Recov	75.000	125.000				08/25/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-146

Group #: WSCF20081729
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>Manganese sample result too high for good spike recovery on 2 of 3 spiked samples. "X" flag.</p> <p>ICP-AES: [Sample W08GR3329] Iron sample result exceeds spiking range by a factor of 4 so spike recoveries are not valid. Check standard used to ensure iron linearity because sample result is greater than the calibration standard.</p>

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample

VALTEST - Test Validation
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-146
Sample # W08GR03329
Client ID: B1WPH8

Group #: WSCF20081729
Department: Radiochemistry
Sampled: 08/13/08
Received: 08/13/08

TRENT

Matrix: WATER

WSCF

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-3.70	pCi/L	+ -3.70	pCi/L	1.00	1.1		08/21/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		74.1	Percent			1.00	0.0		08/21/08
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		46.0	pCi/L	+ -10.1	pCi/L	1.00	5.7		09/13/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		800	pCi/L	+ -232	pCi/L	1.00	2.3e+02		09/12/08
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.990	pCi/L	+ -0.287	pCi/L	1.00	0.011		09/17/08
Uranium-235	15117-96-1	LA-508-471		0.0410	pCi/L	+ -0.0291	pCi/L	1.00	0.012		09/17/08
Uranium-238	U-238	LA-508-471		0.690	pCi/L	+ -0.207	pCi/L	1.00	0.031		09/17/08
U-232 tracer by AEA	U232	LA-508-471		10.0	pCi/L			1.00	0.050		09/17/08

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

J - Analyte < lowest calibration but > = MDL.(org)

U - Analyzed for but not detected above limiting criteria.(org)

U - Analyzed for but not detected above limiting criteria(inorg)

X - Other flags/notes described in the comments/narrative(inorg)

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081729
 Matrix: WATER
 Test: Strontium 89/90

Sample Date: 08/07/08
 Receive Date: 08/07/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03265											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	82.7	82.700	% Recov	30.000	105.000				08/21/08
DUP	Strontium-89/90	SR-RAD	U-3.2		RPD			n/a	20.000		08/21/08
Lab ID: W08GR03329											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	74.1	74.100	% Recov	30.000	105.000				08/21/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	93.7	93.700	% Recov	30.000	105.000				08/21/08
BLANK	Strontium-89/90	10098-97-2	U-2.2	n/a	pCi/L	-10.000	100.000				08/21/08
LCS	Sr-85 Tracer by Beta Counting	SR85	88.1	88.100	% Recov	30.000	105.000				08/21/08
LCS	Strontium-89/90	10098-97-2	150.0	108.046	% Recov	80.000	120.000				08/21/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081729
 Matrix: WATER
 Test: TC99 by Liquid Scin.

Sample Date: 08/13/08
 Receive Date: 08/13/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03329											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tc-99 by Liquid Scin.	14133-76-7	4.8E +01		RPD			0.000	20.000		09/13/08
MS	Tc-99 by Liquid Scin.	14133-76-7	677.6	106.417	% Recov	75.000	125.000				09/13/08
BATCH QC											
BLANK	Tc-99 by Liquid Scin.	14133-76-7	U3.3	n/a	pCi/L	-10.000	10.000				09/13/08
LCS	Tc-99 by Liquid Scin.	14133-76-7	170.2	106.910	% Recov	80.000	120.000				09/13/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081729
 Matrix: WATER
 Test: Tritium by Liq Sct column prep

Sample Date: 08/07/08
 Receive Date: 08/07/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03265											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	7.8E+02		RPD			10.811	20.000		09/12/08
MS	Tritium	10028-17-8	23696	92.745	% Recov	75.000	125.000				09/12/08
BATCH QC											
BLANK	Tritium	10028-17-8	U2.1E+01	n/a	pCi/L	-10.000	1000.000				09/12/08
LCS	Tritium	10028-17-8	3040.0	89.766	% Recov	80.000	120.000				09/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081729
 Matrix: WATER
 Test: Uranium Isotopics by AEA

Sample Date: 08/07/08
 Receive Date: 08/07/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03265											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	10.22	105.560	% Recov	30.000	105.000				09/17/08
DUP	Uranium-233/234	U-233/234	1.1		RPD			9.524	20.000		09/17/08
DUP	Uranium-235	15117-96-1	6.1e-2		RPD			n/a	20.000		09/17/08
DUP	Uranium-238	U-238	0.91		RPD			18.905	20.000		09/17/08
Lab ID: W08GR03329											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	U-232 tracer by AEA	U232	10.22	104.760	% Recov	30.000	105.000				09/17/08
BATCH QC											
BLANK	U-232 tracer by AEA	U232	10.22	93.550	% Recov	30.000	105.000				09/17/08
BLANK	Uranium-233/234	13966-29-5	U3.2e-2	n/a	pCi/L	-10.000	1000.000				09/17/08
BLANK	Uranium-235	15117-96-1	1.5e-2	0.015	pCi/L	-10.000	1000.000				09/17/08
BLANK	Uranium-238	24678-82-8	2.3e-2	0.023	pCi/L	-10.000	1000.000				09/17/08
LCS	U-232 tracer by AEA	U232	11.35	89.930	% Recov	30.000	105.000				09/17/08
LCS	Uranium-233/234	13966-29-5	n/a	n/a	% Recov	75.000	125.000				09/17/08
LCS	Uranium-238	24678-82-8	22.1	116.592	% Recov	80.000	120.000				09/17/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-146

Group #: WSCF20081729
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>Manganese sample result too high for good spike recovery on 2 of 3 spiked samples. "X" flag.</p> <p>ICP-AES: [Sample W08GR3329] Iron sample result exceeds spiking range by a factor of 4 so spike recoveries are not valid. Check standard used to ensure iron linearity because sample result is greater than the calibration standard.</p>

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample

VALTEST - Test Validation
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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M4W41-SLF-08-1072

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 3 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

9/2/08

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 123630/ES10
Group#: 20081729
Project#: F08-146
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 08/13/08. 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	Tests Scheduled	Matrix	Sample Date
W08GR03329	B1WPH8	@2008 @SR89_90	TRENT Water @AEA-32 @TPHD-WA	08/13/08
			@GPP6010 @H3-33 @VOA-GPP	
			@IC-30	

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AEA-32	Uranium Isotopics by AEA
@GPP6010	ICP Metals Analysis, Grd H2O P
@H3-33	Tritium by Liq Sct column prep
@IC-30	Anions by Ion Chromatography
@SR89_90	Strontium 89/90
@TC99-30	TC99 by Liquid Scin.
@TPHD-WA	NWTPH-D TPH Diesel Range (Wa)
@VOA-GPP	VOA Ground Water Protection

COLLECTOR Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C6454 I-010	PROJECT DESIGNATION K-West Characterization - Groundwater		SAF NO. F08-146	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-985-10	ACTUAL SAMPLE DEPTH 137	COA 123630E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.		

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)	PRESERVATION	HCl or H2SO4 to pH <2/Cool-4C	HNO3 to pH <2	HCl to pH <2/Cool-4C	Cool-4C	HNO3 to pH <2	HNO3 to pH <2	HCl to pH <2	None			
		TYPE OF CONTAINER	aGs*	G/P	aG	P	G/P	G/P	G/P	P			
		NO. OF CONTAINER(S)	4	1	3	1	1	1	2	1			
		VOLUME	40mL	500mL	1000mL	500mL	1L	1000mL	1L	250mL			
	SPECIAL HANDLING AND/OR STORAGE 20081729	SAMPLE ANALYSIS	VOA - 8260B (TCL) (Trichloroethene)	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	IC Anions - 300.0 (Nitrogen in Nitrate)	Strontium-89,90 - Total Sr	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	Technetium-99 (Technetium-99)	Tritium - H3 (Tritium)			

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1WPH8	WATER	8-13-08	0923	✓	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
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RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN

(1) ICP/MS - 200.8 (TAL) {Chromium, Manganese} ICP/MS - 200.8 (Add-on)
 (Arsenic) ICP Metals - 6010B (TAL) {Iron}
 (2) TPH-Diesel/Kerosene Range - WTPH-D (Total petroleum hydrocarbons - kerosene range)
 (3) Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}

ICED

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

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