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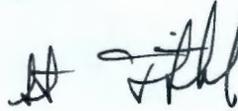
FLUOR

Memorandum

M4W41-SLF-07-804

To: H. Hampt E6-35 Date: October 30, 2007

From: S. L. Fitzgerald, Manager
WSCF Analytical Lab



cc: w/Attachments

T. F. Dale	S3-30	J. E. Trechter	S3-30
D. Felmy (PNNL)	K6-75	S. J. Trent	E6-35
H. K. Meznarich	S3-30	D. D. Wright	S3-30
P. D. Mix	S3-30	File/LB	

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20071696

- Reference:
- 1) Letter of Instruction for Analytical Services for the Groundwater Performance Assessment Project and Analytical Laboratory Transition Plan, FH-0602422, September 19, 2006
 - 2) HNF-SD-CD-QAPP-017, Rev. 8, Waste Sampling & Characterization Facility Quality Assurance Plan

This transmittal contains the following information for sample delivery group WSCF20071696:

- 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-07-804

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20071696
Data Deliverable Date: 05-nov-2007
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
I07-043	B1NHB8	W07P002076	WATER
	B1NHC2	W07P002077	WATER
I07-061	B1P5M4	W07P002081	WATER
	B1P5M5	W07P002082	WATER
I07-062	B1P6B1	W07P002074	WATER
	B1P6B2	W07P002075	WATER
W07-008	B1P8K7	W07P002078	WATER
	B1P8V5	W07P002080	WATER
	B1P944	W07P002079	WATER
W07-009	B1PJR5	W07P002083	WATER
	B1PJR6	W07P002084	WATER

M4W41-SLF-07-804

ATTACHMENT 2

NARRATIVE

Consisting of 5 pages
Including cover page

Introduction

Eleven (11) groundwater samples were received at the WSCF Laboratory on September 25, 2007. Samples were 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” and initialed 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 15 through 18, 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 per GRP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Note(s):

- Sample results were D flagged if dilution(s) were required.

All QC controls are within the established limits.

Chemical Oxygen Demand – A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 34 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1P929 (SDG# 20071646).

All QC controls are within the established limits.

Cyanide – 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 GRP Letter of Instruction. See page 35 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1PJF5 (SDG# 20071655).

All QC controls are within the established limits.

Hexavalent Chromium – 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 the GRP Letter of Instruction. See page 36 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1PHF1 (SDG# 20071652) and B1P5M4 of this SDG.

All 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 per the GRP Letter of Instruction. See pages 37 through 43 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1PF74 (SDG# 20071660) and B1PJ14 (SDG# 20071694).

B1PF74 --

- Iron, Magnesium, Manganese, Nickel, Silver, Barium, Calcium, Cobalt, Chromium, Vanadium and Zinc contamination detected in the Blank was evaluated and affected sample results were C flagged.
- Calcium, Magnesium and Sodium – Insufficient Spike Concentrations. Sample concentrations were significantly greater than the spike concentrations. Check and high standards were analyzed to ensure sample result linearity and acceptability.

All other QC controls are within the established limits.

B1PJ14 --

- Magnesium, Manganese, Nickel, Silver, Barium, Calcium, Cobalt, Vanadium and Zinc contamination detected in the Blank was evaluated and affected sample results were C flagged.
- Calcium, Magnesium and Sodium – Insufficient Spike Concentrations. Sample concentrations were significantly greater than the spike concentrations. Check and high standards were analyzed to ensure sample result linearity and acceptability.

All other 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 per the GRP Letter of Instruction. See page 44 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1PFV6 (SDG# 20071688) and B1PFV0 (SDG# 20071694).

All QC controls are within the established limits.

Total Alkalinity – The hold time requirement for this analysis was met. A Duplicate and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 45 for QC details. Analytical Note(s):

- Duplicate was analyzed on sample# B1PFV6 (SDG# 20071688).

All QC controls are within the established limits.

Total Organic Halides – 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 46 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1P5L1 (SDG# 20071694).
- Sample result was X flagged to due > 10% breakthrough.

All QC controls are within the established limits.

Organic Comments

Semi-VOA – The hold time requirements for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with this delivery group per the GPP Letter of Instruction. See pages 50 through 53 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1PFV0 (SDG# 20071694).

All QC controls are within the established limits.

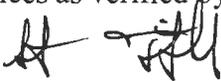
Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 59 through 61 for QC details. Analytical Note(s):

- Gross Alpha – Duplicate Relative Percent Difference (RPD) slightly exceeded established laboratory limits.
- Technetium-99 – Duplicate and Matrix Spike were analyzed on sample# B1PDB7 (SDG# 20071694).
- Tritium – Duplicate and Matrix Spike were analyzed on sample# B1PDB7 (SDG# 20071694).

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



Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury

IC – ion chromatography

ICP – inductively coupled plasma

ICP/AES – ICP/atomic emission spectroscopy

ICP/MS – ICP/mass spectrometry

Total U – total uranium

AT/TB – total alpha/total beta

AEA – Alpha Energy Analysis

WTPH-G – Total Hydrocarbons-Gasoline

Am – americium

Cm - curium

Pu – plutonium

Np – neptunium

GEA – gamma energy analysis

H3 – Tritium

Sr – Strontium 89, 90

WTPH-D – Total Hydrocarbons-Diesel

TSS – Total Suspended Solids

M4W41-SLF-07-804

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 54 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

GPAP
Richland, WA 99352

Attention: Steve Trent E6-35

Analytical:

H. S. Fitzgerald 10/30/07

Client Services:

P.D. Miller 10/29/2007

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

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Report#: WSCF20071696
Report Date: 29-oct-2007
Report WGPP/ver. 5.2
GPAP

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20071696

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
33459	2	33843	37980	BLANK		Hexavalent chromium
33459	10	33843	37980	BLANK		Hexavalent chromium
33459	3	33843	37980	LCS		Hexavalent chromium
33459	5	33843	37980	DUP	W07P002061	Hexavalent chromium
33459	6	33843	37980	MS	W07P002061	Hexavalent chromium
33459	7	33843	37980	MSD	W07P002061	Hexavalent chromium
33459	7	33843	37980	SPK-RPD	W07P002061	Hexavalent chromium
33459	9	33843	37980	SAMPLE	W07P002076	Hexavalent chromium
33460	2	33860	37981	BLANK		Hexavalent chromium
33460	8	33860	37981	BLANK		Hexavalent chromium
33460	3	33860	37981	LCS		Hexavalent chromium
33460	5	33860	37981	DUP	W07P002081	Hexavalent chromium
33460	6	33860	37981	MS	W07P002081	Hexavalent chromium
33460	7	33860	37981	MSD	W07P002081	Hexavalent chromium
33460	4	33860	37981	SAMPLE	W07P002081	Hexavalent chromium
33460	7	33860	37981	SPK-RPD	W07P002081	Hexavalent chromium
33466	2	33869	37982	BLANK		Anions by Ion Chromatography
33466	9	33869	37982	BLANK		Anions by Ion Chromatography
33466	3	33869	37982	LCS		Anions by Ion Chromatography
33466	4	33869	37982	SAMPLE	W07P002082	Anions by Ion Chromatography
33466	6	33869	37982	DUP	W07P002084	Anions by Ion Chromatography
33466	7	33869	37982	MS	W07P002084	Anions by Ion Chromatography
33466	8	33869	37982	MSD	W07P002084	Anions by Ion Chromatography
33466	5	33869	37982	SAMPLE	W07P002084	Anions by Ion Chromatography
33466	8	33869	37982	SPK-RPD	W07P002084	Anions by Ion Chromatography
33468	2	33868	37997	BLANK		Anions by Ion Chromatography
33468	12	33868	37997	BLANK		Anions by Ion Chromatography
33468	3	33868	37997	LCS		Anions by Ion Chromatography
33468	8	33868	37997	SAMPLE	W07P002075	Anions by Ion Chromatography
33468	9	33868	37997	SAMPLE	W07P002077	Anions by Ion Chromatography
33468	10	33868	37997	SAMPLE	W07P002078	Anions by Ion Chromatography
33468	5	33868	37997	DUP	W07P002079	Anions by Ion Chromatography
33468	6	33868	37997	MS	W07P002079	Anions by Ion Chromatography
33468	7	33868	37997	MSD	W07P002079	Anions by Ion Chromatography
33468	4	33868	37997	SAMPLE	W07P002079	Anions by Ion Chromatography
33468	7	33868	37997	SPK-RPD	W07P002079	Anions by Ion Chromatography
33468	11	33868	37997	SAMPLE	W07P002080	Anions by Ion Chromatography
33499	1	33898	38033	BLANK		Cyanide by Midi/Spectrophotom
33499	2	33898	38033	LCS		Cyanide by Midi/Spectrophotom
33499	6	33898	38033	MS	W07P001968	Cyanide by Midi/Spectrophotom
33499	7	33898	38033	MSD	W07P001968	Cyanide by Midi/Spectrophotom
33499	7	33898	38033	SPK-RPD	W07P001968	Cyanide by Midi/Spectrophotom
33499	15	33898	38033	SAMPLE	W07P002077	Cyanide by Midi/Spectrophotom
33499	16	33898	38033	SAMPLE	W07P002080	Cyanide by Midi/Spectrophotom
33499	17	33898	38033	SAMPLE	W07P002082	Cyanide by Midi/Spectrophotom
33509	1	33908	38038	BLANK		ICP-200.8 MS All possible meta
33509	2	33908	38038	LCS		ICP-200.8 MS All possible meta

33509	4	33908	38038	MS	W07P002037	ICP-200.8 MS All possible meta
33509	5	33908	38038	MSD	W07P002037	ICP-200.8 MS All possible meta
33509	5	33908	38038	SPK-RPD	W07P002037	ICP-200.8 MS All possible meta
33509	7	33908	38038	MS	W07P002073	ICP-200.8 MS All possible meta
33509	8	33908	38038	MSD	W07P002073	ICP-200.8 MS All possible meta
33509	8	33908	38038	SPK-RPD	W07P002073	ICP-200.8 MS All possible meta
33509	35	33908	38038	SAMPLE	W07P002077	ICP-200.8 MS All possible meta
33509	36	33908	38038	SAMPLE	W07P002082	ICP-200.8 MS All possible meta
33523	1	33922	38055	BLANK		Chemical Oxygen Demand
33523	2	33922	38055	LCS		Chemical Oxygen Demand
33523	3	33922	38055	MS	W07P001938	Chemical Oxygen Demand
33523	4	33922	38055	MSD	W07P001938	Chemical Oxygen Demand
33523	4	33922	38055	SPK-RPD	W07P001938	Chemical Oxygen Demand
33523	14	33922	38055	SAMPLE	W07P002079	Chemical Oxygen Demand
33544	1	33944	38070	LCS		Total Alkalinity as mg/L CaCO3
33544	14	33944	38070	LCS		Total Alkalinity as mg/L CaCO3
33544	25	33944	38070	LCS		Total Alkalinity as mg/L CaCO3
33544	9	33944	38070	DUP	W07GR02482	Total Alkalinity as mg/L CaCO3
33544	4	33944	38070	DUP	W07P002037	Total Alkalinity as mg/L CaCO3
33544	11	33944	38070	SAMPLE	W07P002080	Total Alkalinity as mg/L CaCO3
33544	12	33944	38070	SAMPLE	W07P002084	Total Alkalinity as mg/L CaCO3
33682	1	34079	38233	BLANK		Total Organic Halides
33682	3	34079	38233	LCS		Total Organic Halides
33682	6	34079	38233	MS	W07P002062	Total Organic Halides
33682	7	34079	38233	MSD	W07P002062	Total Organic Halides
33682	7	34079	38233	SPK-RPD	W07P002062	Total Organic Halides
33682	8	34079	38233	SAMPLE	W07P002082	Total Organic Halides
33695	1	34093	38303	BLANK		ICP Metals Analysis, Grd H20 P
33695	2	34093	38303	LCS		ICP Metals Analysis, Grd H20 P
33695	4	34093	38303	MS	W07P001991	ICP Metals Analysis, Grd H20 P
33695	5	34093	38303	MSD	W07P001991	ICP Metals Analysis, Grd H20 P
33695	5	34093	38303	SPK-RPD	W07P001991	ICP Metals Analysis, Grd H20 P
33695	18	34093	38303	SAMPLE	W07P002083	ICP Metals Analysis, Grd H20 P
33695	19	34093	38303	SAMPLE	W07P002084	ICP Metals Analysis, Grd H20 P
33696	1	34094	38312	BLANK		ICP Metals Analysis, Grd H20 P
33696	2	34094	38312	LCS		ICP Metals Analysis, Grd H20 P
33696	4	34094	38312	MS	W07P002056	ICP Metals Analysis, Grd H20 P
33696	5	34094	38312	MSD	W07P002056	ICP Metals Analysis, Grd H20 P
33696	5	34094	38312	SPK-RPD	W07P002056	ICP Metals Analysis, Grd H20 P
33696	12	34094	38312	SAMPLE	W07P002074	ICP Metals Analysis, Grd H20 P

W13q Worklist/Batch/QC Report for Group# WSCF20071696

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			38063	BLANK		SW-846 8270C Semi-Vols
			38063	LCS		SW-846 8270C Semi-Vols
			38063	MS	W07P002073	SW-846 8270C Semi-Vols
			38063	MSD	W07P002073	SW-846 8270C Semi-Vols
			38063	SPK-RPD	W07P002073	SW-846 8270C Semi-Vols
			38063	SAMPLE	W07P002082	SW-846 8270C Semi-Vols
			38063	SURR	W07P002082	SW-846 8270C Semi-Vols

W13q Worklist/Batch/QC Report for Group# WSCF20071696

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
33505	1	33904	38060	BLANK		Gross Alpha/Gross Beta (AB32)
33505	2	33904	38060	LCS		Gross Alpha/Gross Beta (AB32)
33505	3	33904	38060	DUP	W07P002080	Gross Alpha/Gross Beta (AB32)
33505	4	33904	38060	SAMPLE	W07P002080	Gross Alpha/Gross Beta (AB32)
33533	1	33932	38269	BLANK		Tritium by Liq Sct column prep
33533	2	33932	38269	LCS		Tritium by Liq Sct column prep
33533	3	33932	38269	DUP	W07P002051	Tritium by Liq Sct column prep
33533	4	33932	38269	MS	W07P002051	Tritium by Liq Sct column prep
33533	9	33932	38269	SAMPLE	W07P002075	Tritium by Liq Sct column prep
33533	10	33932	38269	SAMPLE	W07P002077	Tritium by Liq Sct column prep
33533	11	33932	38269	SAMPLE	W07P002080	Tritium by Liq Sct column prep
33533	12	33932	38269	SAMPLE	W07P002082	Tritium by Liq Sct column prep
33537	1	33937	38313	BLANK		TC99 by Liquid Scin.
33537	2	33937	38313	LCS		TC99 by Liquid Scin.
33537	4	33937	38313	DUP	W07P002051	TC99 by Liquid Scin.
33537	3	33937	38313	MS	W07P002051	TC99 by Liquid Scin.
33537	10	33937	38313	SAMPLE	W07P002077	TC99 by Liquid Scin.
33537	11	33937	38313	SAMPLE	W07P002082	TC99 by Liquid Scin.
33537	12	33937	38313	SAMPLE	W07P002084	TC99 by Liquid Scin.

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-265-403	LA-265-403: Hexavalent Chromium analysis by Spectrophotometer EPA SW-846 7196A HEXAVALENT CHROMIUM HEIS 7196_CR6 Hexavalent Chromium
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
LA-523-444	LA-523-444: TOTAL ORGANIC HALIDES BASED ON SW-846 METHOD 9020B EPA SW-846 9020B TOTAL ORGANIC HALIDES (TOX) HEIS 9020_TOX Total Organic Halides based on SW846 Method 9020B
LA-523-470	LA-523-470: CHEMICAL OXYGEN DEMAND EPA-600/4-79-020 410.4 CHEMICAL OXYGEN DEMAND HEIS 410.4_COD Chemical Oxygen Demand
LA-531-411	LA-531-411: ALKALINITY (TITRIMETRIC) HEIS 2320B Alkalinity Standard Methods 2320B Alkalinity
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

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>.

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Report#: WSCF20071696
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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.

	HEIS 300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC	
	EPA-600/4-79-020 335.2	Cyanide, Total
	HEIS 335.2_CYANIDE	Cyanide, Total

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: 29-oct-2007

Report#: WSCF20071696

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-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C
EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
HEIS 8270_SVOA_GCMS	Semivolatile Organoc Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)

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: 29-oct-2007

Report#: WSCF20071696

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	Protium 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

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>.

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Report WGPPM/5.2

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WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I07-062
Sample # W07P002074
Client ID: B1P6B1 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Inorganic
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H2O P Prep											
ICP Metals Analysis, Grd H2O P											
Iron	7439-89-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		10/16/07
Magnesium	7439-95-4	LA-505-411		1.71e+04	ug/L			1.00	6.0		10/16/07
Manganese	7439-96-5	LA-505-411	C	4.70	ug/L			1.00	4.0		10/16/07
Nickel	7440-02-0	LA-505-411	C	10.9	ug/L			1.00	4.0		10/16/07
Potassium	7440-09-7	LA-505-411		4.61e+03	ug/L			1.00	45		10/16/07
Silver	7440-22-4	LA-505-411	C	14.3	ug/L			1.00	5.0		10/16/07
Sodium	7440-23-5	LA-505-411		1.71e+04	ug/L			1.00	27		10/16/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/16/07
Barium	7440-39-3	LA-505-411	C	57.4	ug/L			1.00	4.0		10/16/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07
Chromium	7440-47-3	LA-505-411		18.2	ug/L			1.00	4.0		10/16/07
Cobalt	7440-48-4	LA-505-411	C	8.30	ug/L			1.00	4.0		10/16/07
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07
Vanadium	7440-62-2	LA-505-411	C	37.0	ug/L			1.00	7.0		10/16/07
Zinc	7440-66-6	LA-505-411	C	10.4	ug/L			1.00	4.0		10/16/07
Calcium	7440-70-2	LA-505-411		5.34e+04	ug/L			1.00	34		10/16/07
Strontium	7440-24-6	LA-505-411		189	ug/L			1.00	4.0		10/16/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

C - The Analyte was found in the Associated Blank.(inorg)
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Report WGPP/ver. 5.2
 GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I07-062

Sample # W07P002075

Client ID: B1P6B2 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20071696

Department: Inorganic

Sampled: 09/25/07

Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.368	mg/L			1.00	6.0e-03		09/25/07
Chloride	16887-00-6	LA-533-410	D	19.3	mg/L			10.00	0.30		09/25/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/25/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	21.6	mg/L			10.00	0.050		09/25/07
Sulfate	14808-79-8	LA-533-410		33.6	mg/L			1.00	0.070		09/25/07

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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Report WGPP/ver. 5.2

GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I07-043

Sample # W07P002076

Client ID: B1NHB8 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20071696

Department: Inorganic

Sampled: 09/25/07

Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403		5.70e-03	mg/L			1.00	2.0e-03		09/25/07

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

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Report WGPP/ver. 5.2

GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I07-043

Sample # W07P002077

Client ID: B1NHC2 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20071696

Department: Inorganic

Sampled: 09/25/07

Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.385	mg/L			1.00	6.0e-03		09/25/07
Chloride	16887-00-6	LA-533-410		10.6	mg/L			1.00	0.030		09/25/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/25/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	4.69	mg/L			10.00	0.050		09/25/07
Sulfate	14808-79-8	LA-533-410		29.4	mg/L			1.00	0.070		09/25/07
Cyanide											
Cyanide	57-12-5	LA-695-402		4.90	ug/L			1.00	4.0		09/26/07
ICP-200.8 MS All possible meta Prep											09/26/07
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		36.7	ug/L			1.00	0.0500		09/27/07

MDL=Minimum Detection Limit

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Report WGPP/ver. 5.2

GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W07-008

Sample # W07P002078

Client ID: B1P8K7 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20071696

Department: Inorganic

Sampled: 09/25/07

Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.323	mg/L			1.00	6.0e-03		09/25/07
Chloride	16887-00-6	LA-533-410		8.72	mg/L			1.00	0.030		09/25/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/25/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	4.39	mg/L			10.00	0.050		09/25/07
Sulfate	14808-79-8	LA-533-410	D	46.4	mg/L			10.00	0.70		09/25/07

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

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Report WGPP/ver. 5.2

GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-008
Sample # W07P002079
Client ID: B1P944 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Inorganic
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.279	mg/L			1.00	6.0e-03		09/25/07
Chloride	16887-00-6	LA-533-410		6.84	mg/L			1.00	0.030		09/25/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/25/07
Nitrogen in Nitrate	NO3-N	LA-533-410		3.21	mg/L			1.00	5.0e-03		09/25/07
Sulfate	14808-79-8	LA-533-410	D	42.1	mg/L			5.00	0.35		09/25/07
Chemical Oxygen Demand											
Chemical Oxygen Demand	COD	LA-523-470	U	< 10.0	mg/L			1.00	10		09/28/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
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Report WGPP/ver. 5.2
 GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W07-008

Sample # W07P002080

Client ID: B1P8V5 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20071696

Department: Inorganic

Sampled: 09/25/07

Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	DU	< 0.0300	mg/L			5.00	0.030		09/25/07
Chloride	16887-00-6	LA-533-410	D	50.6	mg/L			5.00	0.15		09/25/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0500	mg/L			5.00	0.050		09/25/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	85.7	mg/L			51.00	0.26		09/25/07
Sulfate	14808-79-8	LA-533-410	D	248	mg/L			51.00	3.6		09/25/07
Cyanide											
Cyanide	57-12-5	LA-695-402		11.7	ug/L			1.00	4.0		09/26/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		110	mg/L			1.00	1.0		10/01/07

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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Report WGPP/ver. 5.2

GPAP

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I07-061
Sample # W07P002081
Client ID: B1P5M4 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Inorganic
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403		0.0415	mg/L			1.00	2.0e-03		09/25/07

MDL=Minimum Detection Limit
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Report WGPP/ver. 5.2
 GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I07-061
Sample # W07P002082
Client ID: B1P5M5 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Inorganic
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.439	mg/L			1.00	6.0e-03		09/25/07
Chloride	16887-00-6	LA-533-410		5.49	mg/L			1.00	0.030		09/25/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/25/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	6.44	mg/L			10.00	0.050		09/25/07
Sulfate	14808-79-8	LA-533-410		14.0	mg/L			1.00	0.070		09/25/07
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 4.00	ug/L			1.00	4.0		09/26/07
ICP-200.8 MS All possible meta Prep											09/26/07
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		3.04	ug/L			1.00	0.0500		09/27/07
Total Organic Halides Prep											10/10/07
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	26.2	ug/L			1.00	5.0		10/12/07

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Report WGPP/ver. 5.2

GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-009
Sample # W07P002083
Client ID: B1PJR5 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Inorganic
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		10/16/07
Magnesium	7439-95-4	LA-505-411		7.45e +03	ug/L			1.00	6.0		10/16/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07
Nickel	7440-02-0	LA-505-411	C	9.70	ug/L			1.00	4.0		10/16/07
Potassium	7440-09-7	LA-505-411		3.25e +03	ug/L			1.00	45		10/16/07
Silver	7440-22-4	LA-505-411	C	14.8	ug/L			1.00	5.0		10/16/07
Sodium	7440-23-5	LA-505-411		2.10e +04	ug/L			1.00	27		10/16/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/16/07
Barium	7440-39-3	LA-505-411	C	26.5	ug/L			1.00	4.0		10/16/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07
Chromium	7440-47-3	LA-505-411	C	43.5	ug/L			1.00	4.0		10/16/07
Cobalt	7440-48-4	LA-505-411	C	7.50	ug/L			1.00	4.0		10/16/07
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07
Vanadium	7440-62-2	LA-505-411	C	47.1	ug/L			1.00	7.0		10/16/07
Zinc	7440-66-6	LA-505-411	C	10.4	ug/L			1.00	4.0		10/16/07
Calcium	7440-70-2	LA-505-411		2.34e +04	ug/L			1.00	34		10/16/07
Strontium	7440-24-6	LA-505-411		83.4	ug/L			1.00	4.0		10/16/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07

MDL = Minimum Detection Limit
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Report WGPP/ver. 5.2
 GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W07-009

Sample # W07P002084

Client ID: B1PJR6 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20071696

Department: Inorganic

Sampled: 09/25/07

Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
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Anions by Ion Chromatography

Fluoride	16984-48-8	LA-533-410		0.445	mg/L			1.00	6.0e-03		09/25/07
Chloride	16887-00-6	LA-533-410		5.48	mg/L			1.00	0.030		09/25/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0100	mg/L			1.00	0.010		09/25/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	6.61	mg/L			5.00	0.025		09/25/07
Sulfate	14808-79-8	LA-533-410		14.0	mg/L			1.00	0.070		09/25/07

ICP Metals Analysis, Grd H2O P Prep

ICP Metals Analysis, Grd H2O P

Iron	7439-89-6	LA-505-411	C	11.8	ug/L			1.00	9.0		10/16/07
Magnesium	7439-95-4	LA-505-411		7.50e+03	ug/L			1.00	6.0		10/16/07
Manganese	7439-96-5	LA-505-411	C	5.70	ug/L			1.00	4.0		10/16/07
Nickel	7440-02-0	LA-505-411	C	10.9	ug/L			1.00	4.0		10/16/07
Potassium	7440-09-7	LA-505-411		3.26e+03	ug/L			1.00	45		10/16/07
Silver	7440-22-4	LA-505-411	C	15.5	ug/L			1.00	5.0		10/16/07
Sodium	7440-23-5	LA-505-411		2.10e+04	ug/L			1.00	27		10/16/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		10/16/07
Barium	7440-39-3	LA-505-411	C	26.6	ug/L			1.00	4.0		10/16/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07
Chromium	7440-47-3	LA-505-411	C	43.1	ug/L			1.00	4.0		10/16/07
Cobalt	7440-48-4	LA-505-411	C	8.80	ug/L			1.00	4.0		10/16/07
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07
Vanadium	7440-62-2	LA-505-411	C	37.7	ug/L			1.00	7.0		10/16/07
Zinc	7440-66-6	LA-505-411	C	8.90	ug/L			1.00	4.0		10/16/07
Calcium	7440-70-2	LA-505-411		2.36e+04	ug/L			1.00	34		10/16/07
Strontium	7440-24-6	LA-505-411		84.1	ug/L			1.00	4.0		10/16/07

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Report WGPP/ver. 5.2

GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W07-009

Sample # W07P002084

Client ID: B1PJR6 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20071696

Department: Inorganic

Sampled: 09/25/07

Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		10/16/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		98.0	mg/L			1.00	1.0		10/01/07

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

C - The Analyte was found in the Associated Blank.(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)

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

D - Analyte was identified at a secondary dilution factor

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

GPAP

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 09/25/07
 Receive Date: 09/25/07

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: W07P002084
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	5.468		RPD			0.239	20.000		09/25/07
DUP	Fluoride	16984-48-8	0.4467		RPD			0.381	20.000		09/25/07
DUP	Nitrogen in Nitrite	NO2-N	< 1e-2		RPD			n/a	20.000	U	09/25/07
DUP	Nitrogen in Nitrate	NO3-N	6.6301		RPD			0.239	20.000		09/25/07
DUP	Sulfate	14808-79-8	14.0298		RPD			0.089	20.000		09/25/07
MS	Chloride	16887-00-6	0.9797	98.960	% Recov	75.000	125.000				09/25/07
MS	Fluoride	16984-48-8	0.5259	104.761	% Recov	75.000	125.000				09/25/07
MS	Nitrogen in Nitrite	NO2-N	0.4815	96.687	% Recov	75.000	125.000				09/25/07
MS	Nitrogen in Nitrate	NO3-N	0.4343	96.297	% Recov	75.000	125.000				09/25/07
MS	Sulfate	14808-79-8	2.0943	105.773	% Recov	75.000	125.000				09/25/07
MSD	Chloride	16887-00-6	0.9947	100.475	% Recov	75.000	125.000				09/25/07
MSD	Fluoride	16984-48-8	0.5348	106.534	% Recov	75.000	125.000				09/25/07
MSD	Nitrogen in Nitrite	NO2-N	0.4871	97.811	% Recov	75.000	125.000				09/25/07
MSD	Nitrogen in Nitrate	NO3-N	0.44192	97.987	% Recov	75.000	125.000				09/25/07
MSD	Sulfate	14808-79-8	2.0991	106.015	% Recov	75.000	125.000				09/25/07
SPK-RPD	Chloride	16887-00-6	100.475		RPD			1.519	20.000		09/25/07
SPK-RPD	Fluoride	16984-48-8	106.534		RPD			1.678	20.000		09/25/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	97.811		RPD			1.156	20.000		09/25/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	97.987		RPD			1.740	20.000		09/25/07
SPK-RPD	Sulfate	14808-79-8	106.015		RPD			0.229	20.000		09/25/07

BATCH QC

BLANK	Chloride	16887-00-6	< 3e-2	n/a	mg/L	0.000	0.030			U	09/25/07
BLANK	Chloride	16887-00-6	< 3e-2	n/a	mg/L	0.000	0.030			U	09/25/07
BLANK	Fluoride	16984-48-8	< 6e-3	n/a	mg/L	0.000	0.030			U	09/25/07
BLANK	Fluoride	16984-48-8	< 6e-3	n/a	mg/L	0.000	0.030			U	09/25/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Nitrogen in Nitrite	NO2-N	< 1e-2	n/a	mg/L	0.000	0.020			U	09/25/07
BLANK	Nitrogen in Nitrite	NO2-N	< 1e-2	n/a	mg/L	0.000	0.020			U	09/25/07
BLANK	Nitrogen in Nitrate	NO3-N	< 5e-3	n/a	mg/L	0.000	0.040			U	09/25/07
BLANK	Nitrogen in Nitrate	NO3-N	< 5e-3	n/a	mg/L	0.000	0.040			U	09/25/07
BLANK	Sulfate	14808-79-8	< 7e-2	n/a	mg/L	0.000	0.200			U	09/25/07
BLANK	Sulfate	14808-79-8	< 7e-2	n/a	mg/L	0.000	0.200			U	09/25/07
LCS	Chloride	16887-00-6	196.4673	98.234	% Recov	80.000	120.000				09/25/07
LCS	Fluoride	16984-48-8	105.8967	104.650	% Recov	80.000	120.000				09/25/07
LCS	Nitrogen in Nitrite	NO2-N	100.1661	100.166	% Recov	80.000	120.000				09/25/07
LCS	Nitrogen in Nitrate	NO3-N	87.5504	95.998	% Recov	80.000	120.000				09/25/07
LCS	Sulfate	14808-79-8	390.684	97.671	% Recov	80.000	120.000				09/25/07

Lab ID: W07P002079
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	6.8007		RPD			0.521	20.000		09/25/07
DUP	Fluoride	16984-48-8	0.2788		RPD			0.143	20.000		09/25/07
DUP	Nitrogen in Nitrite	NO2-N	< 1e-2		RPD			n/a	20.000	U	09/25/07
DUP	Nitrogen in Nitrate	NO3-N	3.1933		RPD			0.624	20.000		09/25/07
DUP	Sulfate	14808-79-8	42.4949		RPD			1.001	20.000		09/25/07
MS	Chloride	16887-00-6	0.9447	95.424	% Recov	75.000	125.000				09/25/07
MS	Fluoride	16984-48-8	0.5214	103.865	% Recov	75.000	125.000				09/25/07
MS	Nitrogen in Nitrite	NO2-N	0.5519	110.823	% Recov	75.000	125.000				09/25/07
MS	Nitrogen in Nitrate	NO3-N	0.3851	85.388	% Recov	75.000	125.000				09/25/07
MS	Sulfate	14808-79-8	2.03844	102.952	% Recov	75.000	125.000				09/25/07
MSD	Chloride	16887-00-6	0.916	92.525	% Recov	75.000	125.000				09/25/07
MSD	Fluoride	16984-48-8	0.5067	100.936	% Recov	75.000	125.000				09/25/07
MSD	Nitrogen in Nitrite	NO2-N	0.5149	103.394	% Recov	75.000	125.000				09/25/07
MSD	Nitrogen in Nitrate	NO3-N	0.3893	86.319	% Recov	75.000	125.000				09/25/07
MSD	Sulfate	14808-79-8	1.96436	99.210	% Recov	75.000	125.000				09/25/07
SPK-RPD	Chloride	16887-00-6	92.525		RPD			3.085	20.000		09/25/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 09/25/07
 Receive Date: 09/25/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Fluoride	16984-48-8	100.936		RPD			2.860	20.000		09/25/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	103.394		RPD			6.936	20.000		09/25/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	86.319		RPD			1.084	20.000		09/25/07
SPK-RPD	Sulfate	14808-79-8	99.210		RPD			3.702	20.000		09/25/07
BATCH QC											
BLANK	Chloride	16887-00-6	< 3e-2	n/a	mg/L	0.000	0.030			U	09/25/07
BLANK	Chloride	16887-00-6	< 3e-2	n/a	mg/L	0.000	0.030			U	09/25/07
BLANK	Fluoride	16984-48-8	< 6e-3	n/a	mg/L	0.000	0.030			U	09/25/07
BLANK	Fluoride	16984-48-8	< 6e-3	n/a	mg/L	0.000	0.030			U	09/25/07
BLANK	Nitrogen in Nitrite	NO2-N	< 1e-2	n/a	mg/L	0.000	0.020			U	09/25/07
BLANK	Nitrogen in Nitrite	NO2-N	< 1e-2	n/a	mg/L	0.000	0.020			U	09/25/07
BLANK	Nitrogen in Nitrate	NO3-N	< 5e-3	n/a	mg/L	0.000	0.040			U	09/25/07
BLANK	Nitrogen in Nitrate	NO3-N	< 5e-3	n/a	mg/L	0.000	0.040			U	09/25/07
BLANK	Sulfate	14808-79-8	< 7e-2	n/a	mg/L	0.000	0.200			U	09/25/07
BLANK	Sulfate	14808-79-8	< 7e-2	n/a	mg/L	0.000	0.200			U	09/25/07
LCS	Chloride	16887-00-6	197.2399	98.620	% Recov	80.000	120.000				09/25/07
LCS	Fluoride	16984-48-8	105.4996	104.455	% Recov	80.000	120.000				09/25/07
LCS	Nitrogen in Nitrite	NO2-N	101.3536	101.354	% Recov	80.000	120.000				09/25/07
LCS	Nitrogen in Nitrate	NO3-N	92.0545	100.937	% Recov	80.000	120.000				09/25/07
LCS	Sulfate	14808-79-8	382.8963	95.724	% Recov	80.000	120.000				09/25/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Chemical Oxygen Demand

Sample Date: 09/13/07
 Receive Date: 09/14/07

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: W07P001938
BATCH QC ASSOCIATED WITH SAMPLE

MS	Chemical Oxygen Demand	COD	257	102.800	% Recov	75.000	125.000				09/28/07
MSD	Chemical Oxygen Demand	COD	254	101.600	% Recov	75.000	125.000				09/28/07
SPK-RPD	Chemical Oxygen Demand	COD	101.600		RPD			1.174	20.000		09/28/07

BATCH QC

BLANK	Chemical Oxygen Demand	COD	-7	-7.000	mg/L	-20.000	20.000				09/28/07
LCS	Chemical Oxygen Demand	COD	102	102.000	% Recov	80.000	120.000				09/28/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Cyanide by Midi/Spectrophotom

Sample Date: 09/16/07
 Receive Date: 09/17/07

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: W07P001968
BATCH QC ASSOCIATED WITH SAMPLE

MS	Cyanide by Midi/Spectrophotom	57-12-5	38.9	99.488	% Recov	75.000	125.000				09/26/07
MSD	Cyanide by Midi/Spectrophotom	57-12-5	37.7	96.419	% Recov	75.000	125.000				09/26/07
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	96.419		RPD			3.133	20.000		09/26/07

BATCH QC

BLANK	Cyanide by Midi/Spectrophotom	57-12-5	< 4	n/a	ug/L	-4.000	4.000			U	09/26/07
LCS	Cyanide by Midi/Spectrophotom	57-12-5	49	100.204	% Recov	85.000	115.000				09/26/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Hexavalent chromium

Sample Date: 09/24/07
 Receive Date: 09/24/07

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: W07P002061
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Hexavalent chromium	18540-29-9	0.0111		RPD			0.000	15.000		09/25/07
MS	Hexavalent chromium	18540-29-9	0.0518	98.106	% Recov	85.000	115.000				09/25/07
MSD	Hexavalent chromium	18540-29-9	0.0518	98.106	% Recov	85.000	115.000				09/25/07
SPK-RPD	Hexavalent chromium	18540-29-9	98.106		RPD			0.000	20.000		09/25/07

BATCH QC

BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/25/07
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/25/07
LCS	Hexavalent chromium	18540-29-9	0.0483	97.183	% Recov	80.000	120.000				09/25/07

Lab ID: W07P002081
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Hexavalent chromium	18540-29-9	0.0415		RPD			0.000	15.000		09/25/07
MS	Hexavalent chromium	18540-29-9	0.0544	103.030	% Recov	85.000	115.000				09/25/07
MSD	Hexavalent chromium	18540-29-9	0.0544	103.030	% Recov	85.000	115.000				09/25/07
SPK-RPD	Hexavalent chromium	18540-29-9	103.030		RPD			0.000	20.000		09/25/07

BATCH QC

BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/25/07
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/25/07
LCS	Hexavalent chromium	18540-29-9	0.0497	100.000	% Recov	80.000	120.000				09/25/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/17/07
 Receive Date: 09/17/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P001991											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Silver	7440-22-4	941.5	94.150	% Recov	75.000	125.000				10/16/07
MS	Barium	7440-39-3	470.7	94.140	% Recov	75.000	125.000				10/16/07
MS	Beryllium	7440-41-7	481.2	96.240	% Recov	75.000	125.000				10/16/07
MS	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				10/16/07
MS	Cadmium	7440-43-9	949	94.900	% Recov	75.000	125.000				10/16/07
MS	Cobalt	7440-48-4	940.6	94.060	% Recov	75.000	125.000				10/16/07
MS	Chromium	7440-47-3	928.6	92.860	% Recov	75.000	125.000				10/16/07
MS	Copper	7440-50-8	956.3	95.630	% Recov	75.000	125.000				10/16/07
MS	Iron	7439-89-6	929.3	92.930	% Recov	75.000	125.000				10/16/07
MS	Potassium	7440-09-7	10407	104.070	% Recov	75.000	125.000				10/16/07
MS	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				10/16/07
MS	Manganese	7439-96-5	954.2	95.420	% Recov	75.000	125.000				10/16/07
MS	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				10/16/07
MS	Nickel	7440-02-0	918.1	91.810	% Recov	75.000	125.000				10/16/07
MS	Antimony	7440-36-0	970.9	97.090	% Recov	75.000	125.000				10/16/07
MS	Strontium	7440-24-6	473.3	94.660	% Recov	75.000	125.000				10/16/07
MS	Vanadium	7440-62-2	915.8	91.580	% Recov	75.000	125.000				10/16/07
MS	Zinc	7440-66-6	938.6	93.860	% Recov	75.000	125.000				10/16/07
MSD	Silver	7440-22-4	950.1	95.010	% Recov	75.000	125.000				10/16/07
MSD	Barium	7440-39-3	478	95.600	% Recov	75.000	125.000				10/16/07
MSD	Beryllium	7440-41-7	487.8	97.560	% Recov	75.000	125.000				10/16/07
MSD	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				10/16/07
MSD	Cadmium	7440-43-9	956.8	95.680	% Recov	75.000	125.000				10/16/07
MSD	Cobalt	7440-48-4	958.6	95.860	% Recov	75.000	125.000				10/16/07
MSD	Chromium	7440-47-3	935.3	93.530	% Recov	75.000	125.000				10/16/07
MSD	Copper	7440-50-8	967.3	96.730	% Recov	75.000	125.000				10/16/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H20 P

Sample Date: 09/17/07
 Receive Date: 09/17/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Iron	7439-89-6	949.3	94.930	% Recov	75.000	125.000				10/16/07
MSD	Potassium	7440-09-7	10467	104.670	% Recov	75.000	125.000				10/16/07
MSD	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				10/16/07
MSD	Manganese	7439-96-5	963.9	96.390	% Recov	75.000	125.000				10/16/07
MSD	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				10/16/07
MSD	Nickel	7440-02-0	922.4	92.240	% Recov	75.000	125.000				10/16/07
MSD	Antimony	7440-36-0	985	98.500	% Recov	75.000	125.000				10/16/07
MSD	Strontium	7440-24-6	479.8	95.960	% Recov	75.000	125.000				10/16/07
MSD	Vanadium	7440-62-2	941.3	94.130	% Recov	75.000	125.000				10/16/07
MSD	Zinc	7440-66-6	948.5	94.850	% Recov	75.000	125.000				10/16/07
SPK-RPD	Silver	7440-22-4	95.010		RPD			0.909	20.000		10/16/07
SPK-RPD	Barium	7440-39-3	95.600		RPD			1.539	20.000		10/16/07
SPK-RPD	Beryllium	7440-41-7	97.560		RPD			1.362	20.000		10/16/07
SPK-RPD	Calcium	7440-70-2			RPD			n/a	20.000		10/16/07
SPK-RPD	Cadmium	7440-43-9	95.680		RPD			0.819	20.000		10/16/07
SPK-RPD	Cobalt	7440-48-4	95.860		RPD			1.896	20.000		10/16/07
SPK-RPD	Chromium	7440-47-3	93.530		RPD			0.719	20.000		10/16/07
SPK-RPD	Copper	7440-50-8	96.730		RPD			1.144	20.000		10/16/07
SPK-RPD	Iron	7439-89-6	94.930		RPD			2.129	20.000		10/16/07
SPK-RPD	Potassium	7440-09-7	104.670		RPD			0.575	20.000		10/16/07
SPK-RPD	Magnesium	7439-95-4			RPD			n/a	20.000		10/16/07
SPK-RPD	Manganese	7439-96-5	96.390		RPD			1.011	20.000		10/16/07
SPK-RPD	Sodium	7440-23-5			RPD			n/a	20.000		10/16/07
SPK-RPD	Nickel	7440-02-0	92.240		RPD			0.467	20.000		10/16/07
SPK-RPD	Antimony	7440-36-0	98.500		RPD			1.442	20.000		10/16/07
SPK-RPD	Strontium	7440-24-6	95.960		RPD			1.364	20.000		10/16/07
SPK-RPD	Vanadium	7440-62-2	94.130		RPD			2.746	20.000		10/16/07
SPK-RPD	Zinc	7440-66-6	94.850		RPD			1.049	20.000		10/16/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BATCH QC											
BLANK	Silver	7440-22-4	16	16.000	ug/L						10/16/07
BLANK	Barium	7440-39-3	4.6	4.600	ug/L						10/16/07
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	10/16/07
BLANK	Calcium	7440-70-2	35.7	35.700	ug/L						10/16/07
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	10/16/07
BLANK	Cobalt	7440-48-4	6.8	6.800	ug/L						10/16/07
BLANK	Chromium	7440-47-3	4.3	4.300	ug/L						10/16/07
BLANK	Copper	7440-50-8	<4	n/a	ug/L					U	10/16/07
BLANK	Iron	7439-89-6	9.8	9.800	ug/L						10/16/07
BLANK	Potassium	7440-09-7	<45	n/a	ug/L					U	10/16/07
BLANK	Magnesium	7439-95-4	14.3	14.300	ug/L						10/16/07
BLANK	Manganese	7439-96-5	6	6.000	ug/L						10/16/07
BLANK	Sodium	7440-23-5	<27	n/a	ug/L					U	10/16/07
BLANK	Nickel	7440-02-0	11.1	11.100	ug/L						10/16/07
BLANK	Antimony	7440-36-0	<32	n/a	ug/L					U	10/16/07
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	10/16/07
BLANK	Vanadium	7440-62-2	11	11.000	ug/L						10/16/07
BLANK	Zinc	7440-66-6	8.7	8.700	ug/L						10/16/07
LCS	Silver	7440-22-4	987.5	98.750	% Recov	80.000	120.000				10/16/07
LCS	Barium	7440-39-3	488.7	97.740	% Recov	80.000	120.000				10/16/07
LCS	Beryllium	7440-41-7	513.4	102.680	% Recov	80.000	120.000				10/16/07
LCS	Calcium	7440-70-2	1120	112.000	% Recov	80.000	120.000				10/16/07
LCS	Cadmium	7440-43-9	1008	100.800	% Recov	80.000	120.000				10/16/07
LCS	Cobalt	7440-48-4	1014	101.400	% Recov	80.000	120.000				10/16/07
LCS	Chromium	7440-47-3	984	98.400	% Recov	80.000	120.000				10/16/07
LCS	Copper	7440-50-8	1007	100.700	% Recov	80.000	120.000				10/16/07
LCS	Iron	7439-89-6	988.7	98.870	% Recov	80.000	120.000				10/16/07
LCS	Potassium	7440-09-7	10200	102.000	% Recov	80.000	120.000				10/16/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Magnesium	7439-95-4	994.9	99.490	% Recov	80.000	120.000				10/16/07
LCS	Manganese	7439-96-5	1005	100.500	% Recov	80.000	120.000				10/16/07
LCS	Sodium	7440-23-5	985.7	98.570	% Recov	80.000	120.000				10/16/07
LCS	Nickel	7440-02-0	980.1	98.010	% Recov	80.000	120.000				10/16/07
LCS	Antimony	7440-36-0	1048	104.800	% Recov	80.000	120.000				10/16/07
LCS	Strontium	7440-24-6	484.9	96.980	% Recov	80.000	120.000				10/16/07
LCS	Vanadium	7440-62-2	974.4	97.440	% Recov	80.000	120.000				10/16/07
LCS	Zinc	7440-66-6	1001	100.100	% Recov	80.000	120.000				10/16/07

Lab ID: W07P002056
 BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	964.7	96.470	% Recov	75.000	125.000				10/16/07
MS	Barium	7440-39-3	478.1	95.620	% Recov	75.000	125.000				10/16/07
MS	Beryllium	7440-41-7	483.3	96.660	% Recov	75.000	125.000				10/16/07
MS	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				10/16/07
MS	Cadmium	7440-43-9	957.2	95.720	% Recov	75.000	125.000				10/16/07
MS	Cobalt	7440-48-4	972.1	97.210	% Recov	75.000	125.000				10/16/07
MS	Chromium	7440-47-3	944.5	94.450	% Recov	75.000	125.000				10/16/07
MS	Copper	7440-50-8	955.8	95.580	% Recov	75.000	125.000				10/16/07
MS	Iron	7439-89-6	950.5	95.050	% Recov	75.000	125.000				10/16/07
MS	Potassium	7440-09-7	10171	101.710	% Recov	75.000	125.000				10/16/07
MS	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				10/16/07
MS	Manganese	7439-96-5	970	97.000	% Recov	75.000	125.000				10/16/07
MS	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				10/16/07
MS	Nickel	7440-02-0	921.4	92.140	% Recov	75.000	125.000				10/16/07
MS	Antimony	7440-36-0	972.4	97.240	% Recov	75.000	125.000				10/16/07
MS	Strontium	7440-24-6	476.7	95.340	% Recov	75.000	125.000				10/16/07
MS	Vanadium	7440-62-2	930.3	93.030	% Recov	75.000	125.000				10/16/07
MS	Zinc	7440-66-6	950.7	95.070	% Recov	75.000	125.000				10/16/07
MSD	Silver	7440-22-4	954.6	95.460	% Recov	75.000	125.000				10/16/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 09/24/07
 Receive Date: 09/24/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Barium	7440-39-3	473.1	94.620	% Recov	75.000	125.000				10/16/07
MSD	Beryllium	7440-41-7	476	95.200	% Recov	75.000	125.000				10/16/07
MSD	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				10/16/07
MSD	Cadmium	7440-43-9	945.6	94.560	% Recov	75.000	125.000				10/16/07
MSD	Cobalt	7440-48-4	956	95.600	% Recov	75.000	125.000				10/16/07
MSD	Chromium	7440-47-3	927.5	92.750	% Recov	75.000	125.000				10/16/07
MSD	Copper	7440-50-8	954	95.400	% Recov	75.000	125.000				10/16/07
MSD	Iron	7439-89-6	928	92.800	% Recov	75.000	125.000				10/16/07
MSD	Potassium	7440-09-7	10061	100.610	% Recov	75.000	125.000				10/16/07
MSD	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				10/16/07
MSD	Manganese	7439-96-5	954.2	95.420	% Recov	75.000	125.000				10/16/07
MSD	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				10/16/07
MSD	Nickel	7440-02-0	903.6	90.360	% Recov	75.000	125.000				10/16/07
MSD	Antimony	7440-36-0	1001	100.100	% Recov	75.000	125.000				10/16/07
MSD	Strontium	7440-24-6	472.4	94.480	% Recov	75.000	125.000				10/16/07
MSD	Vanadium	7440-62-2	911.6	91.160	% Recov	75.000	125.000				10/16/07
MSD	Zinc	7440-66-6	933.9	93.390	% Recov	75.000	125.000				10/16/07
SPK-RPD	Silver	7440-22-4	95.460		RPD			1.052	20.000		10/16/07
SPK-RPD	Barium	7440-39-3	94.620		RPD			1.051	20.000		10/16/07
SPK-RPD	Beryllium	7440-41-7	95.200		RPD			1.522	20.000		10/16/07
SPK-RPD	Calcium	7440-70-2			RPD			n/a	20.000		10/16/07
SPK-RPD	Cadmium	7440-43-9	94.560		RPD			1.219	20.000		10/16/07
SPK-RPD	Cobalt	7440-48-4	95.600		RPD			1.670	20.000		10/16/07
SPK-RPD	Chromium	7440-47-3	92.750		RPD			1.816	20.000		10/16/07
SPK-RPD	Copper	7440-50-8	95.400		RPD			0.189	20.000		10/16/07
SPK-RPD	Iron	7439-89-6	92.800		RPD			2.396	20.000		10/16/07
SPK-RPD	Potassium	7440-09-7	100.610		RPD			1.087	20.000		10/16/07
SPK-RPD	Magnesium	7439-95-4			RPD			n/a	20.000		10/16/07
SPK-RPD	Manganese	7439-96-5	95.420		RPD			1.642	20.000		10/16/07
SPK-RPD	Sodium	7440-23-5			RPD			n/a	20.000		10/16/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 09/24/07
 Receive Date: 09/24/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Nickel	7440-02-0	90.360		RPD			1.951	20.000		10/16/07
SPK-RPD	Antimony	7440-36-0	100.100		RPD			2.899	20.000		10/16/07
SPK-RPD	Strontium	7440-24-6	94.480		RPD			0.906	20.000		10/16/07
SPK-RPD	Vanadium	7440-62-2	91.160		RPD			2.031	20.000		10/16/07
SPK-RPD	Zinc	7440-66-6	93.390		RPD			1.783	20.000		10/16/07

BATCH QC

BLANK	Silver	7440-22-4	16.3	16.300	ug/L						10/16/07
BLANK	Barium	7440-39-3	4.5	4.500	ug/L						10/16/07
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	10/16/07
BLANK	Calcium	7440-70-2	43.3	43.300	ug/L						10/16/07
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	10/16/07
BLANK	Cobalt	7440-48-4	9.2	9.200	ug/L						10/16/07
BLANK	Chromium	7440-47-3	<4	n/a	ug/L					U	10/16/07
BLANK	Copper	7440-50-8	<4	n/a	ug/L					U	10/16/07
BLANK	Iron	7439-89-6	<9	n/a	ug/L					U	10/16/07
BLANK	Potassium	7440-09-7	<45	n/a	ug/L					U	10/16/07
BLANK	Magnesium	7439-95-4	7.3	7.300	ug/L						10/16/07
BLANK	Manganese	7439-96-5	5.1	5.100	ug/L						10/16/07
BLANK	Sodium	7440-23-5	<27	n/a	ug/L					U	10/16/07
BLANK	Nickel	7440-02-0	10.5	10.500	ug/L						10/16/07
BLANK	Antimony	7440-36-0	<32	n/a	ug/L					U	10/16/07
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	10/16/07
BLANK	Vanadium	7440-62-2	9	9.000	ug/L						10/16/07
BLANK	Zinc	7440-66-6	8.3	8.300	ug/L						10/16/07
LCS	Silver	7440-22-4	982.6	98.260	% Recov	80.000	120.000				10/16/07
LCS	Barium	7440-39-3	482.7	96.540	% Recov	80.000	120.000				10/16/07
LCS	Beryllium	7440-41-7	497	99.400	% Recov	80.000	120.000				10/16/07
LCS	Calcium	7440-70-2	1104	110.400	% Recov	80.000	120.000				10/16/07
LCS	Cadmium	7440-43-9	970.5	97.050	% Recov	80.000	120.000				10/16/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Cobalt	7440-48-4	986.8	98.680	% Recov	80.000	120.000				10/16/07
LCS	Chromium	7440-47-3	978	97.800	% Recov	80.000	120.000				10/16/07
LCS	Copper	7440-50-8	982.8	98.280	% Recov	80.000	120.000				10/16/07
LCS	Iron	7439-89-6	964.3	96.430	% Recov	80.000	120.000				10/16/07
LCS	Potassium	7440-09-7	9919	99.190	% Recov	80.000	120.000				10/16/07
LCS	Magnesium	7439-95-4	968.7	96.870	% Recov	80.000	120.000				10/16/07
LCS	Manganese	7439-96-5	983.8	98.380	% Recov	80.000	120.000				10/16/07
LCS	Sodium	7440-23-5	954.2	95.420	% Recov	80.000	120.000				10/16/07
LCS	Nickel	7440-02-0	951.2	95.120	% Recov	80.000	120.000				10/16/07
LCS	Antimony	7440-36-0	1014	101.400	% Recov	80.000	120.000				10/16/07
LCS	Strontium	7440-24-6	474.9	94.980	% Recov	80.000	120.000				10/16/07
LCS	Vanadium	7440-62-2	954.8	95.480	% Recov	80.000	120.000				10/16/07
LCS	Zinc	7440-66-6	965.1	96.510	% Recov	80.000	120.000				10/16/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: ICP-200.8 MS All possible meta

Sample Date: 09/23/07
 Receive Date: 09/24/07

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: W07P002037
 BATCH QC ASSOCIATED WITH SAMPLE

MS	Uranium	7440-61-1	40.244	100.610	% Recov	70.000	130.000				09/27/07
MSD	Uranium	7440-61-1	40.494	101.235	% Recov	70.000	130.000				09/27/07
SPK-RPD	Uranium	7440-61-1	101.235		RPD			0.619	20.000		09/27/07

Lab ID: W07P002073
 BATCH QC ASSOCIATED WITH SAMPLE

MS	Uranium	7440-61-1	38.124	95.310	% Recov	70.000	130.000				09/27/07
MSD	Uranium	7440-61-1	35.824	89.560	% Recov	70.000	130.000				09/27/07
SPK-RPD	Uranium	7440-61-1	89.560		RPD			6.221	20.000		09/27/07

BATCH QC

BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	09/27/07
LCS	Uranium	7440-61-1	40.87	102.175	% Recov	85.000	115.000				09/27/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Total Alkalinity as mg/L CaCO₃

Sample Date: 09/24/07
 Receive Date: 09/24/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02482											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO ₃	ALKALINITY	142.3		RPD			1.188	20.000		10/01/07
Lab ID: W07P002037											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO ₃	ALKALINITY	123.2		RPD			3.038	20.000		10/01/07
BATCH QC											
LCS	Total Alkalinity as mg/L CaCO ₃	ALKALINITY	122.4	106.435	%Recover	80.000	120.000				10/01/07
LCS	Total Alkalinity as mg/L CaCO ₃	ALKALINITY	123.8	107.652	%Recover	80.000	120.000				10/01/07
LCS	Total Alkalinity as mg/L CaCO ₃	ALKALINITY	123.4	107.304	%Recover	80.000	120.000				10/01/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Total Organic Halides

Sample Date: 09/24/07
 Receive Date: 09/24/07

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: W07P002062
BATCH QC ASSOCIATED WITH SAMPLE

MS	Total Organic Halides	TOX	41.8	104.500	% Recov	50.000	150.000				10/12/07
MSD	Total Organic Halides	TOX	41.0	102.500	% Recov	50.000	150.000				10/12/07
SPK-RPD	Total Organic Halides	TOX	102.500		RPD			1.932	20.000		10/12/07

BATCH QC

BLANK	Total Organic Halides	TOX	<5	n/a	ug/L	0.000	300.000			U	10/12/07
LCS	Total Organic Halides	TOX	408	102.000	%rec	80.000	120.000				10/12/07

WSCF

ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20071696
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>Gross alpha duplicate is flagged for poor RPD. The RPD is slightly outside of limits all all other QC was acceptable so this batch has been approved.</p> <p>ICP-AES: High iron, magnesium, manganese, nickel, silver, barium, chromium, cobalt, vanadium, calcium, and zinc preparation blank results; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). Check and high standards used to ensure magnesium, calcium, and sodium linearity because sample results are greater than the calibration standard.</p> <p>ICP-AES: [Sample W07P2074] High magnesium, manganese, nickel, silver, barium, cobalt, molybdenum, vanadium, calcium, and zinc preparation blank results; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). Check and high standards used to ensure magnesium, calcium, and sodium linearity because sample results are greater than the calibration standard.</p> <p>TOX: X-flag indicates > 10% Carbon column breakthrough.gar</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 E6-35
SAF Number: I07-061
Sample # W07P002082
Client ID: B1P5M5 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Organic
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8270C Semi-Vols Prep											
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Phenol	108-95-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Pyrene	129-00-0	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Acenaphthene	83-32-9	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Pentachlorophenol	87-86-5	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
2-Chlorophenol	95-57-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
2-Nitrophenol	88-75-5	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Naphthalene	91-20-3	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Tributyl phosphate	126-73-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Benzothiazole	95-16-9	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
2-Picoline	109-06-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Total cresols	1319-77-3	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07
Tris-2-chloroethyl phosphate	115-96-8	LA-523-456	U	< 0.480	ug/L			1.00	0.48		10/01/07

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

C - The Analyte was found in the Associated Blank.(inorg)
 D - Analyte was identified at a secondary dilution factor(inorg)
 U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor
 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
 GPAP

WSCF

TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent E6-35

Group #: WSCF20071696
Department: Organic

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units	
W07P002082	B1P5M5	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 10.632 1H-Benzotriazole	27556-51-0	10.63261	J	2.8	ug/L
W07P002082	B1P5M5	PNNL-GPP	SW-846 8270C Semi-Vols	SMP 17.158 Unknown	Unknown	17.1581	J	7.7	ug/L

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

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GPAP

WGPPE v 5.2 Report#: WSCF20071696

Report Date: 29-oct-2007

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date: 09/24/07
 Receive Date: 09/24/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P002073 BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,2,4-Trichlorobenzene	120-82-1	10.383	54.500	% Recov	50.000	120.000				09/27/07
MS	1,4-Dichlorobenzene	106-46-7	10.363	54.400	% Recov	41.000	113.000				09/27/07
MS	2,4-Dinitrotoluene	121-14-2	12.746	66.900	% Recov	65.000	109.000				09/27/07
MS	2-Fluorophenol(Surr)	367-12-4	13.527	94.700	% Recov	50.000	110.000				09/27/07
MS	Acenaphthene	83-32-9	12.498	65.600	% Recov	62.000	112.000				09/27/07
MS	4-Chloro-3-methylphenol	59-50-7	20.214	70.700	% Recov	59.000	115.000				09/27/07
MS	2-Chlorophenol	95-57-8	20.387	71.400	% Recov	69.000	111.000				09/27/07
MS	N-Nitrosodi-n-dipropylamine	621-64-7	13.895	72.900	% Recov	69.000	115.000				09/27/07
MS	2-Fluorobiphenyl(Surr)	321-60-8	10.854	76.000	% Recov	58.000	109.000				09/27/07
MS	Phenol	108-95-2	20.810	72.800	% Recov	59.000	115.000				09/27/07
MS	Nitrobenzene-d5(Surr)	4165-60-0	13.753	96.300	% Recov	60.000	118.000				09/27/07
MS	4-Nitrophenol	100-02-7	17.691	61.900	% Recov	32.000	130.000				09/27/07
MS	Pentachlorophenol	87-86-5	19.748	69.100	% Recov	51.000	121.000				09/27/07
MS	Phenol-d5(Surr)	4165-62-2	13.754	96.300	% Recov	59.000	116.000				09/27/07
MS	Pyrene	129-00-0	14.944	78.500	% Recov	58.000	116.000				09/27/07
MS	2,4,6-Tribromophenol(Surr)	118-79-6	13.247	92.700	% Recov	60.000	120.000				09/27/07
MS	Terphenyl-d14(Surr)	98904-43-9	15.599	109.000	% Recov	60.000	120.000				09/27/07
MSD	1,2,4-Trichlorobenzene	120-82-1	10.068	52.900	% Recov	50.000	120.000				09/27/07
MSD	1,4-Dichlorobenzene	106-46-7	9.6854	50.800	% Recov	41.000	113.000				09/27/07
MSD	2,4-Dinitrotoluene	121-14-2	13.246	69.500	% Recov	65.000	109.000				09/27/07
MSD	2-Fluorophenol(Surr)	367-12-4	13.864	97.000	% Recov	50.000	110.000				09/27/07
MSD	Acenaphthene	83-32-9	12.777	67.100	% Recov	62.000	112.000				09/27/07
MSD	4-Chloro-3-methylphenol	59-50-7	20.432	71.500	% Recov	59.000	115.000				09/27/07
MSD	2-Chlorophenol	95-57-8	20.956	73.300	% Recov	69.000	111.000				09/27/07
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	14.409	75.600	% Recov	69.000	115.000				09/27/07
MSD	2-Fluorobiphenyl(Surr)	321-60-8	11.946	83.600	% Recov	58.000	109.000				09/27/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date: 09/24/07
 Receive Date: 09/24/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Phenol	108-95-2	21.028	73.600	% Recov	59.000	115.000				09/27/07
MSD	Nitrobenzene-d5(Surr)	4165-60-0	13.870	97.100	% Recov	60.000	118.000				09/27/07
MSD	4-Nitrophenol	100-02-7	18.930	66.300	% Recov	32.000	130.000				09/27/07
MSD	Pentachlorophenol	87-86-5	21.862	76.500	% Recov	51.000	121.000				09/27/07
MSD	Phenol-d5(Surr)	4165-62-2	13.964	97.700	% Recov	59.000	116.000				09/27/07
MSD	Pyrene	129-00-0	16.105	84.600	% Recov	58.000	116.000				09/27/07
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	13.978	97.800	% Recov	60.000	120.000				09/27/07
MSD	Terphenyl-d14(Surr)	98904-43-9	16.111	113.000	% Recov	60.000	120.000				09/27/07
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	52.900		RPD			2.980	25.000		10/01/07
SPK-RPD	1,4-Dichlorobenzene	106-46-7	50.800		RPD			6.844	25.000		10/01/07
SPK-RPD	2,4-Dinitrotoluene	121-14-2	69.500		RPD			3.812	25.000		10/01/07
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	97.000		RPD			2.400	25.000		10/01/07
SPK-RPD	Acenaphthene	83-32-9	67.100		RPD			2.261	25.000		10/01/07
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	71.500		RPD			1.125	25.000		10/01/07
SPK-RPD	2-Chlorophenol	95-57-8	73.300		RPD			2.626	25.000		10/01/07
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	75.600		RPD			3.636	25.000		10/01/07
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	83.600		RPD			9.524	25.000		10/01/07
SPK-RPD	Phenol	108-95-2	73.600		RPD			1.093	16.000		10/01/07
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	97.100		RPD			0.827	25.000		10/01/07
SPK-RPD	4-Nitrophenol	100-02-7	66.300		RPD			6.864	25.000		10/01/07
SPK-RPD	Pentachlorophenol	87-86-5	76.500		RPD			10.165	25.000		10/01/07
SPK-RPD	Phenol-d5(Surr)	4165-62-2	97.700		RPD			1.443	25.000		10/01/07
SPK-RPD	Pyrene	129-00-0	84.600		RPD			7.480	25.000		10/01/07
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	97.800		RPD			5.354	25.000		10/01/07
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	113.000		RPD			3.604	25.000		10/01/07
Lab ID: W07P002082											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	2-Fluorophenol(Surr)	367-12-4	16.198	85.000	% Recov	50.000	110.000				10/01/07
SURR	2-Fluorobiphenyl(Surr)	321-60-8	14.363	75.400	% Recov	58.000	109.000				10/01/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071696
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date: 09/25/07
 Receive Date: 09/25/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Nitrobenzene-d5(Surr)	4165-60-0	16.561	86.900	% Recov	60.000	118.000				10/01/07
SURR	Phenol-d5(Surr)	4165-62-2	16.128	84.700	% Recov	59.000	116.000				10/01/07
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	14.987	78.700	% Recov	60.000	120.000				10/01/07
SURR	Terphenyl-d14(Surr)	98904-43-9	16.497	86.600	% Recov	60.000	120.000				10/01/07
BATCH QC											
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 0.50	n/a	ug/L					U	09/27/07
BLANK	1,4-Dichlorobenzene	106-46-7	< 0.50	n/a	ug/L					U	09/27/07
BLANK	2,4-Dichlorophenol	120-83-2	< 0.50	n/a	ug/L					U	09/27/07
BLANK	2,4-Dinitrotoluene	121-14-2	< 0.50	n/a	ug/L					U	09/27/07
BLANK	2-Fluorophenol(Surr)	367-12-4	13.835	92.200	% Recov	50.000	110.000				09/27/07
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 0.50	n/a	ug/L					U	09/27/07
BLANK	2-Nitrophenol	88-75-5	< 0.50	n/a	ug/L					U	09/27/07
BLANK	2-Picoline	109-06-8	< 0.50	n/a	ug/L					U	09/27/07
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 0.50	n/a	ug/L	0.000	5.000			U	09/27/07
BLANK	Acenaphthene	83-32-9	< 0.50	n/a	ug/L					U	09/27/07
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 0.50	n/a	ug/L					U	09/27/07
BLANK	Benzothiazole	95-16-9	< 0.50	n/a	ug/L	0.000	300.000			U	09/27/07
BLANK	4-Chloro-3-methylphenol	59-50-7	< 0.50	n/a	ug/L					U	09/27/07
BLANK	2-Chlorophenol	95-57-8	< 0.50	n/a	ug/L					U	09/27/07
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 0.50	n/a	ug/L					U	09/27/07
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	10.035	66.900	% Recov	58.000	109.000				09/27/07
BLANK	Phenol	108-95-2	< 0.50	n/a	ug/L					U	09/27/07
BLANK	Naphthalene	91-20-3	< 0.50	n/a	ug/L					U	09/27/07
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	14.136	94.200	% Recov	60.000	118.000				09/27/07
BLANK	4-Nitrophenol	100-02-7	< 0.50	n/a	ug/L					U	09/27/07
BLANK	Pentachlorophenol	87-86-5	< 0.50	n/a	ug/L					U	09/27/07
BLANK	Phenol-d5(Surr)	4165-62-2	14.500	96.700	% Recov	59.000	116.000				09/27/07
BLANK	Pyrene	129-00-0	< 0.50	n/a	ug/L					U	09/27/07
BLANK	Tris-2-chloroethyl phosphate	115-96-8	< 0.50	n/a	ug/L	0.000	300.000			U	09/27/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20071696
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Tributyl phosphate	126-73-8	< 0.50	n/a	ug/L					U	09/27/07
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	12.740	84.900	% Recov	60.000	120.000				09/27/07
BLANK	Terphenyl-d14(Surr)	98904-43-9	16.576	111.000	% Recov	60.000	120.000				09/27/07
LCS	1,2,4-Trichlorobenzene	120-82-1	7.5715	54.100	% Recov	46.000	107.000				09/27/07
LCS	1,4-Dichlorobenzene	106-46-7	7.0537	50.400	% Recov	42.000	111.000				09/27/07
LCS	2,4-Dinitrotoluene	121-14-2	11.686	83.500	% Recov	59.000	106.000				09/27/07
LCS	2-Fluorophenol(Surr)	367-12-4	11.837	78.900	% Recov	50.000	110.000				09/27/07
LCS	Acenaphthene	83-32-9	11.047	78.900	% Recov	61.000	116.000				09/27/07
LCS	4-Chloro-3-methylphenol	59-50-7	17.817	84.800	% Recov	61.000	106.000				09/27/07
LCS	2-Chlorophenol	95-57-8	18.034	85.900	% Recov	66.000	106.000				09/27/07
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	11.044	78.900	% Recov	71.000	114.000				09/27/07
LCS	2-Fluorobiphenyl(Surr)	321-60-8	10.187	67.900	% Recov	58.000	109.000				09/27/07
LCS	Phenol	108-95-2	18.012	85.800	% Recov	67.000	105.000				09/27/07
LCS	Nitrobenzene-d5(Surr)	4165-60-0	12.400	82.700	% Recov	60.000	118.000				09/27/07
LCS	4-Nitrophenol	100-02-7	15.252	72.600	% Recov	32.000	118.000				09/27/07
LCS	Pentachlorophenol	87-86-5	17.441	83.100	% Recov	62.000	114.000				09/27/07
LCS	Phenol-d5(Surr)	4165-62-2	12.072	80.500	% Recov	59.000	116.000				09/27/07
LCS	Pyrene	129-00-0	14.080	101.000	% Recov	66.000	118.000				09/27/07
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	11.554	77.000	% Recov	60.000	120.000				09/27/07
LCS	Terphenyl-d14(Surr)	98904-43-9	14.872	99.100	% Recov	60.000	120.000				09/27/07

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I07-062
Sample # W07P002075
Client ID: B1P6B2 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Radiochemistry
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		1.20e+03	pCi/L	+ -288	pCi/L	1.00	2.2e+02		10/11/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

C - The Analyte was found in the Associated Blank.(inorg)
 D - Analyte was identified at a secondary dilution factor(inorg)
 U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor
 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
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WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I07-043
Sample # W07P002077
Client ID: B1NHC2 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Radiochemistry
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		160	pCi/L	+ -32.0	pCi/L	1.00	4.2		10/11/07
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	96.0	pCi/L	+ -124	pCi/L	1.00	2.2e +02		10/11/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

C - The Analyte was found in the Associated Blank.(inorg)
 D - Analyte was identified at a secondary dilution factor(inorg)
 U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor
 U - Analyzed for but not detected above limiting criteria(inorg)
 X - Other flags/notes described in the comments/narrative(inorg)

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Report WGPP/ver. 5.2
 GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W07-008
Sample # W07P002080
Client ID: B1P8V5 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Radiochemistry
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha/Gross Beta (AB32)											
Gross alpha	12587-46-1	LA-508-415		540	pCi/L	+ -64.8	pCi/L	1.00	8.7		09/27/07
Gross beta	12587-47-2	LA-508-415		6.20e +03	pCi/L	+ -620	pCi/L	1.00	14		09/27/07
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		8.40e +03	pCi/L	+ -1.68e +03	pCi/L	1.00	2.2e +02		10/11/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

C - The Analyte was found in the Associated Blank.(inorg)
 D - Analyte was identified at a secondary dilution factor(inorg)
 U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor
 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
 GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I07-061
Sample # W07P002082
Client ID: B1P5M5 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20071696
Department: Radiochemistry
Sampled: 09/25/07
Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		4.00e+03	pCi/L	+800	pCi/L	1.00	4.2		10/11/07
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		1.00e+04	pCi/L	+2.00e+03	pCi/L	1.00	2.2e+02		10/11/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

C - The Analyte was found in the Associated Blank.(inorg)
 D - Analyte was identified at a secondary dilution factor(inorg)
 U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor
 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
 GPAP

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W07-009

Sample # W07P002084

Client ID: B1PJR6 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20071696

Department: Radiochemistry

Sampled: 09/25/07

Received: 09/25/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		4.20e +03	pCi/L	+ -840	pCi/L	1.00	4.2		10/11/07

MDL=Minimum Detection Limit

C - The Analyte was found in the Associated Blank.(inorg)

D - Analyte was identified at a secondary dilution factor

RQ=Result Qualifier

D - Analyte was identified at a secondary dilution factor(inorg)

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

TP Err=Total Propagated Error

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

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

DF=Dilution Factor

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

Report WGPP/ver. 5.2

GPAP

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 09/25/07
 Receive Date: 09/25/07

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: W07P002080
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Gross alpha	12587-46-1	4.3E+02			RPD		22.680	20.000		09/27/07
DUP	Gross beta	12587-47-2	6.0E+03			RPD		3.279	20.000		09/27/07

BATCH QC

BLANK	Gross alpha	12587-46-1	U6.0E-01	n/a	pCi/L	-10.000	10.000				09/27/07
BLANK	Gross beta	12587-47-2	U2.8E-01	n/a	pCi/L	-10.000	10.000				09/27/07
LCS	Gross alpha	12587-46-1	54.0	104.550	% Recov	80.000	120.000				09/27/07
LCS	Gross beta	12587-47-2	172.0	115.050	% Recov	80.000	120.000				09/27/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071696
 Matrix: WATER
 Test: TC99 by Liquid Scin.

Sample Date: 09/24/07
 Receive Date: 09/24/07

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: W07P002051
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Technetium-99	14133-76-7	9.1		RPD			18.905	20.000		10/11/07
MS	Technetium-99	14133-76-7	166.7	102.838	% Recov	75.000	125.000				10/11/07

BATCH QC

BLANK	Technetium-99	14133-76-7	U-3.7	n/a	pCi/L	-10.000	10.000				10/11/07
LCS	Technetium-99	14133-76-7	205.6	101.431	% Recov	80.000	120.000				10/11/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071696
 Matrix: WATER
 Test: Tritium by Liq Sct column prep

Sample Date: 09/24/07
 Receive Date: 09/24/07

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: W07P002051
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Tritium	10028-17-8	1.0E+02		RPD			0.000	20.000		10/11/07
MS	Tritium	10028-17-8	19799.0	94.030	% Recov	75.000	125.000				10/11/07

BATCH QC

BLANK	Tritium	10028-17-8	U4.8E+01	n/a	pCi/L	-10.000	1000.000				10/11/07
LCS	Tritium	10028-17-8	2490.0	97.636	% Recov	80.000	120.000				10/11/07

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20071696
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>Gross alpha duplicate is flagged for poor RPD. The RPD is slightly outside of limits all other QC was acceptable so this batch has been approved.</p> <p>ICP-AES: High iron, magnesium, manganese, nickel, silver, barium, chromium, cobalt, vanadium, calcium, and zinc preparation blank results; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). Check and high standards used to ensure magnesium, calcium, and sodium linearity because sample results are greater than the calibration standard.</p> <p>ICP-AES: [Sample W07P2074] High magnesium, manganese, nickel, silver, barium, cobalt, molybdenum, vanadium, calcium, and zinc preparation blank results; "C" flag if applicable. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). Check and high standards used to ensure magnesium, calcium, and sodium linearity because sample results are greater than the calibration standard.</p> <p>TOX: X-flag indicates > 10% Carbon column breakthrough.gar</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-07-804

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 10 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

File
11/05/07
TJ

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20071696

The following samples were received from you on 09/25/07. 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
W07P002074	B1P6B1	PNNL-GPP @GPP6010	Water	09/25/07
W07P002075	B1P6B2	PNNL-GPP @H3-33 @IC-30	Water	09/25/07
W07P002076	B1NHB8	PNNL-GPP CR+6	Water	09/25/07
W07P002077	B1NHC2	PNNL-GPP @2008 @H3-33 @IC-30 @TC99-30 CN-02	Water	09/25/07
W07P002078	B1P8K7	PNNL-GPP @IC-30	Water	09/25/07
W07P002079	B1P944	PNNL-GPP @IC-30 COD	Water	09/25/07
W07P002080	B1P8V5	PNNL-GPP @AB-32 @H3-33 @IC-30 ALKALI CN-02	Water	09/25/07
W07P002081	B1P5M4	PNNL-GPP CR+6	Water	09/25/07
W07P002082	B1P5M5	PNNL-GPP @2008 @H3-33 @IC-30 @SVOCGPP @TC99-30 CN-02 TOX	Water	09/25/07
W07P002083	B1PJR5	PNNL-GPP @GPP6010	Water	09/25/07
W07P002084	B1PJR6	PNNL-GPP @GPP6010 @IC-30 @TC99-30 ALKALI	Water	09/25/07

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AB-32	Gross Alpha/Gross Beta (AB32)
@GPP6010	ICP Metals Analysis, Grd H20 P
@H3-33	Tritium by Liq Sct column prep
@IC-30	Anions by Ion Chromatography
@SVOCGPP	SW-846 8270C Semi-Vols

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20071696

Test Acronym Description

Test Acronym	Description
@TC99-30	TC99 by Liquid Scin.
ALKALI	Total Alkalinity as mg/L CaCO ₃
CN-02	Cyanide by Midi/Spectrophotom
COD	Chemical Oxygen Demand
CR+6	Hexavalent chromium
TOX	Total Organic Halides

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

107-062-150

11/05/07 20071696

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Collector Josh Herrick Fluor Hanford	Contact/Requester Steve Trent	Telephone No. 509-373-5869	MSIN FAX
SAF No. 107-062	Sampling Origin Hanford Site	Purchase Order/Charge Code	
Project Title 2ZP1-LOI AUGUST 2007	Method of Shipment Govt. Vehicle	Ice Chest No. <u>6W-1</u>	Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.	
Protocol CERCLA	Priority: 45 Days	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all GW samples submitted into one SDG, daily closure.
 All SDG's are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1P6B1 (F) <u>W07</u>	<u>2002074</u>	W	<u>9/25/07</u>	<u>824</u>	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1P6B2	<u>2075</u>	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool-4C
B1P6B2	<u>W</u>	W	↓	↓	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p><i>J. Wall</i> 9/25/07</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>ICED Initial Date</p> </div> </div>							

Relinquished By Josh Herrick Fluor Hanford	Print <i>J. Herrick</i>	Sign <i>J. Herrick</i>	Date/Time 1055 SEP 25 2007	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 1055 SEP 25 2007	Matrix *	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water I = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time		
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By	Date/Time

66-01-72

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector Josh Herrick Fluor Hanford	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. I07-043	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title 2UP1-LOL MAY 2007	Method of Shipment Govt. Vehicle	Ice Chest No. 6W-1	Temp.	
Shipped To (Lab) Waste Sampling & Characterization	Priority: 45 Days	Offsite Property No.		

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** **Total Activity Exemption: Yes No**
 All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1NHB8 (F)	2076	W	9/25/07	0952	1x500-mL aG	7196_CR6: Hexavalent Chromium (1)	Cool-4C
B1NHC2	2077	W	↓	↓	1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1NHC2	↓	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool-4C
B1NHC2	↓	W	↓	↓	1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	None
B1NHC2	↓	W	↓	↓	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1NHC2	↓	W	↓	↓	1x250-mL G/P	335.2_CYANIDE: Cyanide (1)	NaOH to pH >= 12 Cool-4C
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> ICED Initial Date </div>							

Relinquished By Josh Herrick Fluor Hanford	Print <i>J Herrick</i>	Sign <i>J Herrick</i>	Date/Time SEP 25 2007	Relinquished By	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time SEP 25 2007	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		

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