

**FINAL REPORT FOR THE SAMPLES RECEIVED IN
MARCH, 2010, FOR SAF I10-020**

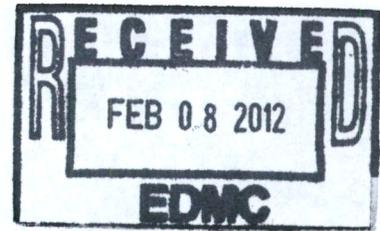
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222-S LABORATORY**FINAL REPORT FOR THE SAMPLES RECEIVED IN MARCH, 2010
FOR SAF No I10-020**

1.0 INTRODUCTION

This final report presents the results for one ground water sample taken on March 10, 2010. The sample was analyzed in accordance with Sampling Authorization Form I10-020 and ATL-MP-1011; *ATL Quality Assurance Project Plan for 222-S Laboratory (QAPP)*. The following attachments are included in this report.

Attachment 1	Data Summary Report
Attachment 2	Holding Time Report
Attachment 3	Receipt Paperwork

2.0 SAMPLE RECEIPT AND HANDLING

The sample was received on March 10, 2010, with adequate paperwork. The measured temperature of the outside of the sample container was 12 °C. This was reported to the client on the laboratory's sample receipt check list (see Attachment 3).

3.0 ANALYTICAL RESULTS SUMMARY

The Data Summary Report (Attachment 1) presents the final analytical results for those analytes requested in the SAF. The "Det Limit" column in Attachment 1 contains the method detection limit (MDL).

In Attachment 1, the column labeled "A#" indicates the aliquot class or the method used for sample preparation before analysis. For analysis without a preparation step, this column is left blank.

The "Qual Flags" column in Attachment 1 contains data qualifier flags that are defined as follows:

- "U" indicates that the reported result is less than the calculated method detection limit.

Manual calculations using rounded results from the Data Summary Report or result calculation forms may differ slightly from the actual results derived from the raw data.

3.1 ANALYSES

3.1.1 Anions by Ion Chromatography

The ion chromatography analysis for anions was performed on direct aliquots of the sample. All requirements in the SAF and QAPP were met.

4.0 PROCEDURES

Table 1 lists the analytical procedures used for analysis of these samples.

Table 1. Analytical Procedures.

Analysis	Preparation Method	Analysis Procedure
Anions by Ion Chromatography	NA	SW846-9056A

5.0 REFERENCES

ATL-MP-1011, 2009, *ATL Quality Assurance Project Plan for 222-S Laboratory*, Rev. 9, Applied Technologies and Laboratories International, Inc., Richland, Washington.

Sampling Authorization Form I10-020; 2010, CH2M Hill, Plateau Remediation Company, Richland, Washington.

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Attachment 1

DATA SUMMARY REPORT

**WSCF - Anions & HexCr
 Data Summary of All Results**

Sample Group: 20100271

Customer Group or SDG Number: 222S20100271

Customer Sample ID: B248N2

Customer Sample ID: B248N2

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10M000179			16984-48-8	Fluoride	ug/mL	94.6	<6.16E-03	0.0846	n/a	n/a	n/a	n/a	6.16E-03	n/a	
S10M000179			16887-00-6	Chloride	ug/mL	99.6	<3.10E-03	1.53	n/a	n/a	n/a	n/a	3.10E-03	n/a	
S10M000179			14797-65-0	Nitrite	ug/mL	91.2	<0.0400	<0.0400	n/a	n/a	n/a	n/a	0.0400	n/a	U
S10M000179			24959-67-9	Bromide	ug/mL	93.3	<0.0237	<0.0237	n/a	n/a	n/a	n/a	0.0237	n/a	U
S10M000179			14797-55-8	Nitrate	ug/mL	91.9	<0.0162	3.17	n/a	n/a	n/a	n/a	0.0162	n/a	
S10M000179			14265-44-2	Phosphate	ug/mL	95.1	<0.0381	<0.0381	n/a	n/a	n/a	n/a	0.0381	n/a	U
S10M000179			14808-79-8	Sulfate	ug/mL	91.7	<0.0219	10.5	n/a	n/a	n/a	n/a	0.0219	n/a	

NA = Not Analyzed, ND = Not Detected

U - < Det Limit

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Attachment 2

HOLDING TIME REPORT

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Hold Time Report

SDG No 222S2 20100271

Client Sample ID	Sample Group	Lab Sample ID	Matrix	Method	Sample Date	Received Date	Analysis Date	Missed Holding Time
B248N2	20100271	S10M000179	LIQUID	SW846-9056	03/10/10 09:35	03/10/10 14:15	03/12/10 05:16	N

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Attachment 3

RECEIPT PAPERWORK

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev <u>D.D.1</u>
Date Samples Received: <u>3/10/10</u>		Group #: <u>20100271</u>
Number of Samples: <u>6</u>		
Sample Custodian: <u>Cheryl Edwards</u>		
Sample Custodian to Complete:		
Action	OK? (Y/N)	N/A
RSA/COC provided?	✓	
RSR provided?		✓
Verify GKI is complete	✓	
Check that outer custody seal is intact, if present	✓	
Record cooler temperature in centigrade, as appropriate <u>5°C</u>	✓	<input type="checkbox"/> Check if no cooler and/or no ice
Samples are intact and in good condition	✓	If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:		
• Client name and client sample number	✓	
• Date and time of sampling	✓	
• Sampling location or origin	✓	
• Container type, size, and number	✓	
• Analysis request is clear	✓	
• Signature of persons relinquishing and receiving samples	✓	
• Date and/or time of sample custody exchange	✓	
Verify that sample numbers on containers match the COC and/or RSA	✓	
Samples stored properly (e.g. <u>refrigeration</u>)	✓	
Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)		
PM to Complete:		
Samples acceptable for release? <u>yes</u>	PM Initials _____	Date <u>3/10/10</u>
If No, comment on communication and resolution: <u>per CR</u>		
Other Comments:		

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C.O.C. #

I10-020-73

CHPRC

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Collector B.E. Briggs CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. I10-020	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20
Project Title 100KR4IAM MARCH 2010	Logbook No: HNF-N-506 26 179	Ice Chest No. N/A
Shipped To (Lab) 222-S Lab Operations	Method of Shipment Government Vehicle	Bill of Lading/Air Bill No. N/A
Protocol CERCLA	Priority: 45 Days	Offsite Property No. N/A
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) 222520100271		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B248N2	N	W	3/10/10	0935	1x100-mL P 3/10/10	300.0_ANIONS_IC: List-1 + Brom_Phosp (7) 5/10/10 00179	28 Days/48 Hours	Cool-4C
<i>Waters 3/10/10</i>								

Relinquished By B.E. Briggs CHPRC	Print <i>Be Briggs</i>	Sign	Date/Time MAR 10 2010	Received By <i>Gregory Edward Choy</i>	Print	Sign	Date/Time MAR 10 2010	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	Date/Time				S = Soil DS = Drum Solid SE = Sediment DL = Drum Limb SO = Solid T = Tissue SL = Sludge W = Wine W = Water I = Inimid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	Date/Time				
Relinquished By	Date/Time	Received By	Date/Time	Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time		

GENERATOR KNOWLEDGE INFORMATION

1. Chain of Custody Number NA CACN/COA NA Customer Identification Number NA

2. List generator knowledge or description of process that produced sample. Or list description of sample source:
 100 Area S&GRP Characterization and Monitoring Sampling and Analysis

MSDS Available? No Yes Hanford MSDS No: _____

3. List all waste codes and constituents associated with the waste or media that was sampled, regardless of CERCLA status.

a) Does the sample contain any of the following listed waste codes?
 By checking "unknown" the customer understands that no knowledge is available following a careful search.

List Federal Waste Code(s):	List Constituent(s):			
P Codes: _____	_____	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
U Codes: _____	_____	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
K Codes: _____	_____	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
F Codes: _____	_____	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown

b) List applicable characteristic waste codes, flash point, pH, constituents, and concentrations as appropriate.

D001: <input type="checkbox"/> FP <100°F	<input type="checkbox"/> FP ≥100 <140°F	<input type="checkbox"/> DOT Oxidizer	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
D002: <input type="checkbox"/> pH ≤2	<input type="checkbox"/> pH ≥12.5	<input type="checkbox"/> Solid Corrosive (WSC2)	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
D003: <input type="checkbox"/> Cyanide	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Water Reactive	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
D004-D043 (Identify applicable waste codes and concentrations):		<input type="checkbox"/> Other _____ (i.e., peroxide former, explosive, air reactive)	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown

N/A

c) If characteristic, list any known underlying hazardous constituents (UHCs) reasonably expected to be present, and their concentrations that may be present above the LDR treatment standard (40 CFR 268.48):

N/A

d) List any known Land Disposal Restrictions (LDR) subcategories, if applicable (40 CFR 268.40):

N/A

e) List any applicable Washington State dangerous waste codes: (not required if federally regulated)

WT01: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	WP01: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
WT02: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	WP02: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
W001: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	WP03: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
List constituents and concentrations:	F003:* <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown

N/A

4. Is this material TSCA regulated for PCBs? Yes No Unknown Analysis Requested

List concentration if applicable: _____
 If yes, what is the source of the PCBs? (see TSCA PCB Hanford Site User Guide, DOE/RL-2001-50)

<input type="checkbox"/> PCB Liquid Waste	<input type="checkbox"/> PCB Bulk Product Waste	<input type="checkbox"/> PCB Transformer ≥500 ppm	<input type="checkbox"/> Unknown
<input type="checkbox"/> PCB Remediation Waste	<input type="checkbox"/> PCB R&D Waste	<input type="checkbox"/> PCB contaminated electrical equipment (capacitor/ballast) <500 ppm	
<input type="checkbox"/> PCB Spill Material	<input type="checkbox"/> PCB Item	<input type="checkbox"/> Other PCB Waste (list) _____	

5. Is this material TRU? Yes No Unknown

6. ACCURACY OF INFORMATION
 Based on my inquiry of those individuals immediately responsible for obtaining this information, that to the best of my knowledge, the information entered in this document is true, accurate, and complete.

Print & Sign SJ TRENT / [Signature] Date 12/3/07