

**FINAL REPORT FOR THE SAMPLE RECEIVED IN
FEBRUARY, 2010 FOR SAF F10-043**

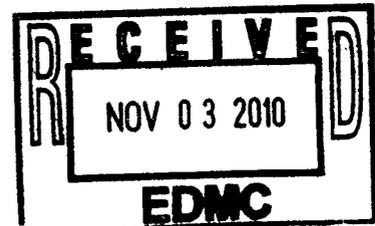
**Document No.: 20100185
SDG: 222S20100185**

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222-S LABORATORY**FINAL REPORT FOR THE SAMPLE RECEIVED IN FEBRUARY, 2010,
FOR SAF F10-043**

1.0 INTRODUCTION

This final report presents the result for the one ground water sample taken on February 25, 2010. The sample was analyzed in accordance with Sampling Authorization Form F10-043; 299-E28-30 Characterization Saturated Zone-Groundwater ("M" Well) (SAF) 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
Attachment 4	Issue Resolution Forms

2.0 SAMPLE RECEIPT AND HANDLING

The sample was received on February 25, 2010, with adequate paperwork. The measured temperature of the outside of the sample container was 13 °C . This was reported to the client on the laboratory's sample receipt check list (see Attachment 3) and Issue Resolution Form No. 10-050 (see Attachment 4).

3.0 ANALYTICAL RESULTS SUMMARY

The Data Summary Report (Attachment 1) present 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 Hexavalent Chromium by Spectrophotometric Determination

The hexavalent chromium analysis was performed on a direct aliquot of the sample. All requirements in the SAF and QAPP were met with one exception. The low level standard

recovery was below the required 75% at 40%. Since there was a negative instrument response for this sample, it is the laboratory's opinion that data quality was not affected.

4.0 PROCEDURES

Table 1 lists the analytical procedure used for analysis of this sample.

Table 1. Analytical Procedures.

Analysis	Preparation Method	Analysis Procedure
Hexavalent Chromium Analysis by Spectrophotometric Determination	NA	SW846-7196A

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 F10-043; *299-E28-30 Characterization Saturated Zone-Groundwater ("M" Well)*, 2009, CH2M Hill, Plateau Remediation Company, Richland, Washington

Attachment 1

DATA SUMMARY REPORT

WSCF - Anions & HexCr
Data Summary of All Results

Sample Group: 20100185
Customer Group or SDG Number: 22S20100185
Customer Sample ID: B23PV2
Customer Sample ID: B23PV2

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10M000095			18540-29-9	Hexavalent Chromium	ug/mL	98.2	<9.00E-03	<9.70E-03	n/a	n/a	n/a	n/a	9.70E-03	n/a	U

U - < Det Limit

NA = Not Analyzed, ND = Not Detectec

Attachment 2

HOLDING TIME REPORT

20100185

Hold Time Report SDG No.: 222S20100185

Sample Group	Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Analysis Date	Missed Holding Time
20100185	S10M000095	LIQUID	CHROMIUM VI	SW846-7196	02/25/10 08:30	02/25/10 10:00	02/25/10 18:30	N

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>2.25.10</u>		Group #: <u>D.D.T RAL</u>	
Number of Samples: <u>2</u>		<u>20100185</u>	
Sample Custodian: <u>RAL</u>			
Sample Custodian to Complete:			
Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?		✓	
Verify GKI is complete	✓		<u>on file</u>
Check that outer custody seal is intact, if present		✓	
Record cooler temperature in centigrade, as appropriate	✓		<input type="checkbox"/> Check if no cooler and/or no ice <u>13°C</u>
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., refrigeration)	✓		
Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)			
PM to Complete:			
Samples acceptable for release? <u>Y</u> PM Initials <u>LY</u> Date <u>2/25/2010</u>			
If No, comment on communication and resolution:			
Other Comments:			

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:
 200 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: _____ Yes No Unknown

U Codes: _____ Yes No Unknown

K Codes: _____ Yes No Unknown

F Codes: F001 - F005 Yes No Unknown

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

D001: FP <100°F FP ≥100 <140°F DOT Oxidizer Yes No Unknown

D002: pH ≤2 pH ≥12.5 Solid Corrosive (WSC2) Yes No Unknown

D003: Cyanide Sulfide Water Reactive Other _____ Yes No Unknown

D004-DC43 (Identify applicable waste codes and concentrations): _____ (i.e., peroxide former, explosive, air reactive) Yes No 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) (*State mixture rule for ignitability)

WT01: Yes No Unknown WP01: Yes No Unknown

WT02: Yes No Unknown WP02: Yes No Unknown

W001: Yes No Unknown WP03: Yes No Unknown

List constituents and concentrations: _____ F003:* Yes No 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)

PCB Liquid Waste PCB Bulk Product Waste PCB Transformer ≥500 ppm Unknown

PCB Remediation Waste PCB R&D Waste PCB contaminated electrical equipment (capacitor/ballast) <500 ppm

PCB Spill Material PCB item 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 / AA JJA Date 12/3/07

Attachment 4

ISSUE RESOLUTION FORMS

ISSUE RESOLUTION FORM

CHPRC TRACKING NUMBER: 10-050

Date: 2/25/2010

SAF No. F10-043, F10-65, S10-012, W10-001, W10-002

SDG: 222S20100175, 176, 185, 186, 187, 188, 190

LOGIN No.: S10M000091-93 and 95-100

TEST: Anions, HexCr, & VOA

Sample No.(s) B23CW4, B23CT9, B23PV2, B24DP5, B23D19, B23D20, B23198,
B23X46

Submitted By: G. P. Ritenour

Phone No: 372-2742

Fax No.: 373-4884

Submitted To: Heidi Hampt

Phone No. 376-4319

Fax No. 373-1788

ISSUE

All samples were received outside of the recommended cooling temperatures of $4\pm 2^{\circ}\text{C}$ or $<6^{\circ}\text{C}$. Except as noted below, samples were received in a bag or cooler without evidence of cooling (no ice or blue ice). For two samples, B24DP5 and B23PV, the sample custodian could not remember the exact packing configuration. For these samples temperature was 13°C .

PROPOSED RESOLUTION

Analyze and note in report narrative

CHPRC/BHI/WMH/PNNL COMMENTS

Accept proposed resolution. Remember to include a copy of the IRF in the report narratives.

Heidi Hampt 3/2/10

Signature and Date