

April 29, 2015

Analytical Data Package Prepared For  
**CH2M Hill Plateau Remediation**

Chemical Analysis By  
**TestAmerica Inc**

*2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.*

Assigned Laboratory Code: TARL

Data Package Contains 7 Pages

Report No.: 65500

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
WC0059	F15-015	B30JF0 DUP	J5D160426-4	M6L7P1AD	M6L7P1AD	5106066
WC0060	F15-032	B31360	J5D160427-1	M6L7T1AA	M6L7T1AA	5106066

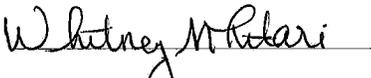
Sample Date: 4/16/2015

Receipt Date: 4/16/2015

Data Deliverable: 4/28/2015

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and Approved:

  
Project Manager



## Certificate of Analysis

CH2M Hill Plateau Remediation Company  
P.O. Box 1600  
Mail Stop – R3-60  
Richland, WA 99352

April 28, 2015

Attention: Scot Fitzgerald

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SAF Number	:	F15-032
Date SDG Closed	:	April 16, 2015
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	W0060
Data Deliverable	:	30-Day / Summary

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### CASE NARRATIVE

#### **I. Introduction**

On April 16, 2015 one sample was received at TestAmerica (TARL). Upon receipt, the sample was assigned laboratory ID number to correspond with the CH2M specific ID.

#### **II. Sample Receipt**

The sample was received in good condition and no anomalies were noted during check-in.

#### **III. Analytical Results/Methodology**

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

##### **Chemical Analysis**

Anions, Ion Chromatography by EPA method 300.0

#### **IV. Quality Control**

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted

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in the "Comments" section.

QC and sample results are reported in the same units.

**V. Comments**

**Chemical Analysis**

Anions, Ion Chromatography by EPA method 300.0

No analytical or quality issues were noted. The sample results and associated batch QC results are within contractual requirements.

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager (or designee) and the laboratory's client services representative as verified by their signatures on this report.

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CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F15-032-003	PAGE 1 OF 1
COLLECTOR D. Floyd ChpRC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9432, I-003	PROJECT DESIGNATION WMA-SX Groundwater Analysis at Wells C9430, C9431, and C9432 - Water	FIELD LOGBOOK NO. HNF-W-507-26/84	SAF NO. F15-032	AIR QUALITY	
ICE CHEST NO.	ACTUAL SAMPLE DEPTH 261.4	OFFSITE PROPERTY NO.	COA 302898	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica Incorporated, Richland	BILL OF LADING/AIR BILL NO.				

MATRIX* A=Air DL=Drum L=Liquid S=Solids O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WT=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/REMARKS *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	PRESERVATION Cool <=6C	HOLDING TIME 48 Hours	TYPE OF CONTAINER P	NO. OF CONTAINER(S) 1	VOLUME 500mL	SAMPLE ANALYSIS 300.0 ANIONS, IC: COMMON {Nitrogen in Nitrate}
SPECIAL HANDLING AND/OR STORAGE							
SAMPLE NO. B31360	MATRIX* WATER	SAMPLE DATE 4-16-15	SAMPLE TIME 1300				

J5D160427  
WCC0060

M6LTT

CHAIN OF POSSESSION		SIGN/PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM D. Floyd ChpRC	DATE/TIME 4-16-15 1330	RECEIVED BY/STORED IN R.A. Shepard/ChpRC	DATE/TIME 4-16-15 1330	** Field NCOs are to filter all samples using a 45 micron filter. TRVL-15-069	
RELINQUISHED BY/REMOVED FROM R.A. Shepard/ChpRC	DATE/TIME 4-16-15 1415	RECEIVED BY/STORED IN J. Friesz, TARL	DATE/TIME 4-16-15 1420	TRVL-15-069	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	J5D160427	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

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

Date/Time Received: 4/16/15 1420 Container GM Screen Result: (Airlock) 60 cpm Initials [ J ]  
Sample GM Screen Result (Sample Receiving) 20 cpm Initials [ J ]

Client: FLA SDG #: WCO060 SAF #: F15 F15-032 NA [ ] F15-032  
JF4/16/15 JF 4/16/15

Lot Number: J5D160427

Chain of Custody # F15-032-003

Shipping Container ID or Air Bill Number : NA [ J ]

Samples received inside shipping container/cooler/box Yes [ J ] Continue with 1 through 4. Initial appropriate response.  
No [ ] Go to 5, add comment to #16.

- 1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [ J ]
- 2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ J ]
- 3. Cooler temperature: 4.9 °C WICE NA [ ]
- 4. Vermiculite/packing materials is NA [ J ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [ J ] No [ ]
- 6. Number of samples received (Each sample may contain multiple bottles): 1
- 7. Containers received: 1x 500mlp

- 8. Sample holding times exceeded? NA [ ] Yes [ ] No [ J ]
- 9. Samples have: tape hazard labels F custody seals J appropriate sample labels
- 10. Matrix: A (FLT, Wipe, Solid, Soil) J I (Water) S (Air, Niosh 7400) T (Biological, Ni-63)
- 11. Samples: J are in good condition are leaking are broken  
have air bubbles (Only for samples requiring no head space) Other
- 12. Sample pH appropriate for analysis requested Yes [ J ] No [ ] NA [ ]  
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO<sub>3</sub> added and pH after addition on table)
- 13. Were any anomalies identified in sample receipt? Yes [ ] No [ J ]
- 14. Description of anomalies (include sample numbers): NA [ J ]
- 15. Sample Location, Sample Collector Listed on COC? \* Yes [ J ] No [ ]  
\*For documentation only. No corrective action needed.
- 16. Additional Information: N/A N/A  
JF4/16/15

[ ] Client/Courier denied temperature check. [ J ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:  
Signature: [Signature] Date: 4/16/15

Client Notification needed? Yes [ ] No [ J ] Date: \_\_\_\_\_  
By: \_\_\_\_\_  
Person contacted: \_\_\_\_\_

No action necessary; process as is  
Project Manager Whitney M. Litari Date 4/17/15

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Sample Results Summary

Date: 28-Apr-15

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 65500

SDG No: WC0060

Batch Client ID	Date Sampled	Work Order No.	Parameter	Result	Qual	Units	MDL	RL	Date Analyzed	Dil Fct
<b>5106066 300.0_ANIONS_IC ,WATER</b>										
B31360	04/16/15 13:00	M6L7T1AA	Nitrate as N	1.78	D	mg/L	0.028	0.056	04/16/15 18:08	2

No. of Results: 1

TestAmerica Inc D Qual - The reported value is from a dilution

rptTALRchSample  
SumC2 V5.3.6.8  
A2002

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QC Results Summary  
TestAmerica Inc TARL  
Ordered by Method, Batch No, QC Type,.

Date: 28-Apr-15

Report No. : 65500

SDG No.: WC0059

Batch	Work Work No.	Parameter	Result	Qual	Units	LCS Recovery	MDL	RL	RPD	Dil Fct
<b>300.0_ANIONS_IC</b>										
5106066 MS, B30JF0	M6L7P1AC	Nitrate as N	2.70		mg/L	100%	0.014	0.028		1
		Sulfate	22.1		mg/L	100%	0.125	0.25		1
5106066 DUP, B30JF0 DUP	M6L7P1AD	Nitrate as N	5.89 D		mg/L		0.028	0.056	0.1	2
		Sulfate	120.0 D		mg/L		0.625	1.25	0.1	5
5106066 BLANK,	M6L7X1AA	Nitrate as N	<0.0140 U		mg/L		0.014	0.028		1
		Sulfate	<0.125 U		mg/L		0.125	0.25		1
5106066 LCS,	M6L7X1AC	Nitrate as N	0.542		mg/L	96%	0.014	0.028		1
		Sulfate	4.94		mg/L	99%	0.125	0.25		1

No. of Results: 8