

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.: 66607

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.
WC0098	F15-028	B30RR7	J5F240407-1	M640R1AA	M640R1AA	5175020
		B30RR7 DUP	J5F240407-1	M640R1AD	M640R1AD	5175020

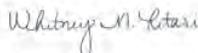
Sample Date: 6/23/2015

Receipt Date: 6/24/2015

Data Deliverable: 7/23/2015

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:

 Digitally signed by  
Whitney Ritari  
Date: 2015.07.23 18:54:46  
-07'00'

Project Manager



## Certificate of Analysis

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

July 23, 2015

Attention: Scot Fitzgerald

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SAF Number	:	F15-028
Date SDG Closed	:	July 24, 2015
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	WC0098
Data Deliverable	:	30- Day/ Summary

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### CASE NARRATIVE

#### **I. Introduction**

On June 24, 2015, one sample was received at TestAmerica (TARL). Upon receipt, the sample was assigned laboratory ID numbers to correspond with the CH2M specific IDs.

#### **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**

Hexavalent Chromium by EPA method 7196A

#### **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 in the "Comments" section.

CH2M Hill Plateau Remediation Company  
July 23, 2015

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The sample/ sample duplicate agreement is not applicable if one or both results are less than five times the MDL.

QC and sample results are reported in the same units.

**V. Comments**  
**Chemical Analysis**

Hexavalent Chromium by EPA method 7196A

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.

**SAMPLE ISSUE RESOLUTION**

<b>SIR NUM</b>	SIR16-192
<b>REV NUM</b>	0
<b>DATE INITIATED</b>	1/20/2016

**SAMPLE EVENT INFORMATION**

**SAF NUM(S)** F15-028

**OPERABLE UNIT(S)** 100-KR-2

**PROJECT(S)** 100-KE FSB

**SAMPLE EVENT TITLE(S)** Characterization Boreholes in UPR-100-K-1 and 1116-KE-3 Waste Sites

**LABORATORY** TestAmerica Incorporated, Richland

**SAMPLING INFORMATION**

**NUMBER OF SAMPLES** 1

**SAMPLE NUMBERS** B30RR7

**SAMPLE MATRIX** WATER

**COLLECTION DATE** 6/23/2015 - 6/23/2015

**SDG NUM** WC0098

**ISSUE BACKGROUND**

**CLASS** Chain of Custody Issue (Field)

**TYPE** No/Illegible Relinquisher/Receiver Listed on COC

**DESCRIPTION** COC F15-028-018, SAMPLE B30RR7.  
Missing third relinquished by signature.

**DISPOSITION**

**DESCRIPTION** DOCUMENT AND CLOSE

**JUSTIFICATION** DOCUMENT AND CLOSE

SUBMITTED BY: Jessa Szecsody DATE: 12/10/2015  
ACCEPTED BY: Kirsten Killand DATE: 01/20/2016

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F15-028-018	PAGE 1 OF 1
COLLECTOR <b>WIGHT</b>	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C8796, Interval 35 REQ	PROJECT DESIGNATION 100-KE Characterization Boreholes - Water	FIELD LOGBOOK NO. HNF-N-645-3912	SAF NO. F15-028	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT GOVERNMENT VEHICLE
ICE CHEST NO.	ACTUAL SAMPLE DEPTH 88.9	OFFSITE PROPERTY NO.	COA 303581	ORIGINAL	
SHIPPED TO TestAmerica Incorporated, Richland					

<b>PRESERVATION</b> Cool <=6C 24 Hours aG 1 60mL 7196.CRB: COMMON;	<b>PRESCRIPTION</b> Cool <=6C	<b>HOLDING TIME</b> 24 Hours	<b>TYPE OF CONTAINER</b> aG	<b>NO. OF CONTAINER(S)</b> 1	<b>VOLUME</b> 60mL	<b>SAMPLE ANALYSIS</b> 7196.CRB: COMMON;	
	<b>SPECIAL HANDLING AND/OR STORAGE</b> RADIATION PROTECTIVE THE 10-830286 504 612313						
	<b>SAMPLE NO.</b> 930RR7	<b>MATRIX*</b> WATER	<b>SAMPLE DATE</b> 6-23-15	<b>SAMPLE TIME</b> 1436	M640R JUN 23 2015 1530 JUN 24 2015 0700 JUN 24 2015 0830		
	J5F240407 SDS# WCO098						

<b>CHAIN OF POSSESSION</b>		<b>SIGN/ PRINT NAMES</b>		<b>SPECIAL INSTRUCTIONS</b> TRVL-15-037	
RELINQUISHED BY/REMOVED FROM D.E. WIGHT/CHFRG	DATE/TIME JUN 23 2015 1530	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUN 23 2015 1530	TRVL-15-037	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUN 24 2015 0700	RECEIVED BY/STORED IN D.M. BROTHERTON/CHFRG	DATE/TIME JUN 24 2015 0700	TRVL-15-037	
RELINQUISHED BY/REMOVED FROM D.M. BROTHERTON/CHFRG	DATE/TIME JUN 24 2015 0830	RECEIVED BY/STORED IN J. FIESZ, TARL	DATE/TIME JUN 24 2015 0830	TRVL-15-037	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	TRVL-15-037	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	TRVL-15-037	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	TRVL-15-037	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	TRVL-15-037	
<b>LABORATORY SECTION</b>	RECEIVED BY	<b>TITLE</b>		DATE/TIME	
<b>FINAL SAMPLE DISPOSITION</b>	DISPOSAL METHOD	<b>DISPOSED BY</b>		DATE/TIME	
PRINTED ON 3/17/2015					

TestAmerica

Sample Check-in List

Date/Time Received: 6/24/15 0830 Container GM Screen Result: (Airlock) 40 cpm Initials [J]
Sample GM Screen Result (Sample Receiving) 20 cpm Initials [J]

Client: FLH SDG #: WC0098 SAF #: F15-028 NA [ ]

Lot Number: J5F240407

Chain of Custody # F15-028-018

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: 17.2 °EWICE 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: 1x60ml bag

- 8. Sample holding times exceeded? NA [ ] Yes [ ] No [J]
9. Samples have: tape hazard labels J 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
J 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 HNO3 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

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

Sample Check-in List completed by Sample Custodian: Signature: [Signature] Date: 6/24/15

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

WMP No action necessary; process as is Project Manager Whitney M. Peters Date 6/25/15

Sample Results Summary

Date: 23-Jul-15

TestAmerica Inc TARI

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

Report No. : 66607

SDG No: WC0098

Batch Client ID	Date Sampled	Work Order No.	Parameter	Result	Qual	Units	MDL	RL	Date Analyzed	Dil Fct
<b>5175020 7196_CR6 ,WATER</b>										
B30RR7	06/23/15 14:36	M640R1AA	HEXCHROME	0.0151		mg/L	0.0015	0.004	06/24/15 10:33	1

No. of Results: 1

**QC Results Summary**

Date: 23-Jul-15

**TestAmerica Inc TARI**

Ordered by Method, Batch No, QC Type,.

Report No. : 66607

SDG No.: WC0098

Batch	Work Work No.	Parameter	Result	Qual	Units	LCS Recovery	MDL	RL	RPD	Dil Fct
<b>7196_CR6</b>										
5175020 MS, B30RR7	M640R1AC	HEXCHROME	0.0508		mg/L	102%	0.0015	0.004		1
5175020 DUP, B30RR7 DUP	M640R1AD	HEXCHROME	0.0154		mg/L		0.0015	0.004	2.0	1
5175020 BLANK,	M64071AA	HEXCHROME	<0.00150 U		mg/L		0.0015	0.004		1
5175020 LCS,	M64071AC	HEXCHROME	0.254		mg/L	102%	0.0015	0.004		1
<b>No. of Results: 4</b>										