



RJ Lee Group, Inc. | Columbia Basin Analytical Laboratories

2710 North 20th Avenue, Pasco WA 99301

Tel: (509) 545-4989 | Fax: (509) 544-6010

CH2M Hill Plateau Remediation Company - C01282F  
825 Jadwin Avenue  
Richland, WA 99352

12/09/20  
Contract: 74392

**Subject: Chemical Analysis Report, SDG Number: RJLG20C0191**

Columbia Basin Analytical Laboratories received 5 sample(s) on 12/03/20 for analysis. These sample(s) have been assigned a login order number of W012046, SDG number RJLG20C0191. Enclosed is the final report that consists of a summary report of the sample(s), and a copy of the chain of custody. If provided by customer on COC, sample volume is recorded on the laboratory report and has been used to calculate final results.

**General Lab Comments**

The results provided in this report relate only to the items tested. Sample(s) were received in acceptable conditions unless otherwise noted in the comments above. Sample(s) have not been field blank corrected unless otherwise noted in the general set comments above. Results included in the report apply to the sample as it was received. Information provided by customer can affect validity of results. The sample(s) were prepared and analyzed in compliance with EPA 7196. This test report shall not be reproduced, except in full, without written approval of Columbia Basin Analytical Laboratories. Any questions, please contact our office.

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 data deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this data package has been authorized by the Laboratory Director or a designee and the laboratory's client service representative as verified by their signatures on this report. This report has been technically reviewed by the following individual:

A handwritten signature in black ink, appearing to read 'Dennese Smith', written over a horizontal line.

12/08/20

Scientist II Dennese Smith

If you have any questions please feel free to contact Dennese Smith at [dennese.smith@rjleegroup.com](mailto:dennese.smith@rjleegroup.com) or 509-545-4989.

This report has been administratively reviewed and approved by the following individual:

A handwritten signature in black ink, appearing to read 'JJ Furlong', written over a horizontal line.

12/09/20

Project Manager JJ Furlong

Columbia Basin Analytical Laboratories | 2710 North 20th Avenue, Pasco WA 99301 | 509.545.4989

WWW.RJLEEGROUP.COM

Report Template: Environmental.rpt

Approved: 12/8/20 15:50  
Report Time Stamp: 12/09/20 19:36



Heather Medley  
CH2M Hill Plateau Remediation  
Company - C01282F  
825 Jadwin Avenue  
Richland, WA 99352  
Client Project: Hex Chrome

## Laboratory Report

RJ Lee Group No.: W012046  
SDG No: RJLG20C0191  
Samples Received: 12/03/20 14:45  
Analysis/Prep Date: 12/03/20 16:54  
Report Date: 12/09/20 19:36

**Sample Name:** B3Y8B6 **Date Sampled:** 12/03/20 08:01

**RJ Lee Grp. ID:** W012046-01 **Matrix:** Water **Date Analyzed:** 12/03/20 16:54

Analyte	Method	Result µg/L	PQL µg/L	MDL µg/L	Dilution Factors	Qualifiers
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Hexavalent Chromium EPA 7196 <2.50 5.00 2.50 1 U

**Sample Name:** B3Y863 **Date Sampled:** 12/03/20 08:39

**RJ Lee Grp. ID:** W012046-02 **Matrix:** Water **Date Analyzed:** 12/03/20 16:54

Analyte	Method	Result µg/L	PQL µg/L	MDL µg/L	Dilution Factors	Qualifiers
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Hexavalent Chromium EPA 7196 4.76 5.00 2.50 1 B

**Sample Name:** B3Y8C3 **Date Sampled:** 12/03/20 08:41

**RJ Lee Grp. ID:** W012046-03 **Matrix:** Water **Date Analyzed:** 12/03/20 16:55

Analyte	Method	Result µg/L	PQL µg/L	MDL µg/L	Dilution Factors	Qualifiers
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Hexavalent Chromium EPA 7196 <2.50 5.00 2.50 1 U

**Sample Name:** B3Y844 **Date Sampled:** 12/03/20 09:33

**RJ Lee Grp. ID:** W012046-04 **Matrix:** Water **Date Analyzed:** 12/03/20 16:55

Analyte	Method	Result µg/L	PQL µg/L	MDL µg/L	Dilution Factors	Qualifiers
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Hexavalent Chromium EPA 7196 5.49 5.00 2.50 1

**Sample Name:** B3Y8K1 **Date Sampled:** 12/03/20 10:35

**RJ Lee Grp. ID:** W012046-05 **Matrix:** Water **Date Analyzed:** 12/03/20 16:55

Analyte	Method	Result µg/L	PQL µg/L	MDL µg/L	Dilution Factors	Qualifiers
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Hexavalent Chromium EPA 7196 4.15 5.00 2.50 1 B

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Heather Medley  
CH2M Hill Plateau  
Remediation Company -  
825 Jadwin Avenue  
Richland, WA 99352  
Client Project: Hex Chrome

## Quality Control

Water

RJ Lee Group No.: W012046  
SDG No.: RJLG20C0191  
Samples Received: 12/03/20 14:45  
Analysis/Prep Date: 12/03/20 16:53  
Report Date: 12/09/20 19:36

Analyte	CAS NO.	QC Sample ID	Expected µg/L	Result µg/L	MDL µg/L	PQL µg/L	RPD	% REC	Recovery Limits	Qualifier & Comments
Hexavalent Chromium	18540-29-9	LRB	<2.50	<2.50	2.50	5.00				U
Hexavalent Chromium	18540-29-9	LCS	125.00	135.40	2.50	5.00		108	80 - 120	
Hexavalent Chromium	18540-29-9	MS	69.00	63.04	2.50	5.00		88.2	75 - 125	W012047-01
Hexavalent Chromium	18540-29-9	MSD	69.00	63.52	2.50	5.00	0.76	89.1	75 - 125	W012047-01

### Report Qualifiers:

> = Result greater than quantifiable range or greater than upper limit of the analysis range

B = Inorganics and Wetchem: The analyte was detected at a value <RDL, but ≥ IDL/MDL (as appropriate)

Organics: The analyte was detected in both the associated QC blank and in the sample, and the blank concentration exceeded the customer's contractual requirements

C = The analyte was detected in both the sample and the associated QC blank, and the sample concentration was ≤ 5X the blank concentration

D = Analyte was reported at a secondary dilution factor

J = Organics: Estimated value; (1) constituent detected at a level <RDL or PQL and ≥MDL and estimated concentrations of TICs

o = All: The associated LCS recovery is outside control limits

N = Spike and/or spike duplicate sample recovery is outside control limits

U = Analyzed for but not detected above limiting criteria

X or Y or Z = The result-specific translation of this qualifier code is provided in the hardcopy data report and/or case narrative.

Additional result-specific translation information may also be found in the RESULT\_COMMENT field for this record.

Scientist II Dennese Smith

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee will be assessed for the return of any samples. Unless otherwise noted, samples were received in an acceptable condition. This laboratory operates in accordance with ISO 17025 guidelines, and holds limited scopes of accreditation under ORELAP Lab Code 4061 AIHA-LAP, LLC Lab ID 178656 EPA ID WA01195 and WA DOE Lab ID C859. This report may not be used to claim product endorsement by any laboratory accrediting agency. The results contained in this report relate only to the items tested or to the sample(s) as received by the laboratory. Any reproduction of this document must be in full for the report to be valid. Quality control data is available upon request.

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WWW.RJLEEGROUP.COM

Report Template: Environmental.rpt

Approved: 12/8/20 15:50  
Report Time Stamp: 12/09/20 19:36

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST <i>W012046</i>				C.O.C. # W21-012-133 Page 1 of 1		
Collector: Juan Aguilar CHPRC		Contact/Requester: Karen Waters-Husted		Telephone No.: 509-376-4650				
SAF No.: W21-012		Sampling Origin: Hanford Site		Purchase Order/Charge Code: 300071				
Project Title: RCRA, December 2020		Logbook No.: HNF-N-506 -116154		Ice Chest No.: <i>N/A</i>				
Shipped To (Lab): <del>CEL Laboratories, LLC</del> <i>PS Lee</i>		Method of Shipment Commercial Carrier		Bill of Lading/Air Bill No.: <i>N/A</i>				
Protocol: RCRA <i>KS DEC 02 2020</i>		Priority: 15 Days <b>PRIORITY</b>		Offsite Property No.: <i>N/A</i>				
POSSIBLE SAMPLE HAZARDS/REMARK ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1				SPECIAL INSTRUCTIONS N/A <i>2.4</i> <i>RULG20C0191</i>				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3Y8B6	<b>Y</b>	W	<i>DEC 03 2020</i>	<i>0801</i>	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

Relinquished By			Received By			Matrix *		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time			
Juan Aguilar CHPRC	<i>[Signature]</i>	<i>DEC 03 2020 0930</i>	Lesly Wall CHPRC	<i>[Signature]</i>	<i>DEC 03 2020 0930</i>	S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other		
Lesly Wall CHPRC	<i>[Signature]</i>	<i>DEC 03 2020 1100</i>	<i>[Signature]</i>	<i>DEC 03 2020 1100</i>				
Jeff Lucas CHPRC	<i>[Signature]</i>	<i>DEC 03 2020 1445</i>	<i>[Signature]</i>	<i>DEC 03 2020 1445</i>				
FINAL SAMPLE DISPOSITION			Disposal Method (e.g., Return to customer, per lab procedure, used in process):			Disposed By:		Date/Time:

CH2MHill Plateau  
Remediation Company

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #  
W21-012-097

Page 1 of 1

<b>Collector:</b> Jim Lochridge		<b>Contact/Requester:</b> Karen Waters-Husted		<b>Telephone No.:</b> 509-376-4650	
<b>SAF No.:</b> W21-012		<b>Sampling Origin:</b> Hanford Site		<b>Purchase Order/Charge Code:</b> 300071	
<b>Project Title:</b> RCRA, December 2020		<b>Logbook No.:</b> HNF-N-506 -117		<b>Ice Chest No.:</b> N/A 3.4	
<b>Shipped To (Lab):</b> GEL Laboratories, LLC KS Lee		<b>Method of Shipment:</b> Commercial Carrier		<b>Bill of Lading/Air Bill No.:</b> N/A	
<b>Protocol:</b> RCRA KS DEC 0 2 2020		<b>Priority:</b> 15 Days <b>PRIORITY</b>		<b>Offsite Property No.:</b> N/A	
<b>POSSIBLE SAMPLE HAZARDS/REMARK</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1			<b>SPECIAL INSTRUCTIONS</b> N/A R2L020C0191 R2L020C0192 N 12/03/2020		
<b>Sample No.</b>	<b>Filter</b>	<b>*</b>	<b>Date</b>	<b>Time</b>	<b>No/Type Container</b>
B3Y863	y	W	12/3/20	0839	1x60-mL aG
<b>Sample Analysis</b>					
7196_CR6: COMMON					
<b>Holding Time</b>					<b>Preservative</b>
24 Hours					Cool <=6C

## Relinquished By

## Received By

## Matrix \*

Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		DEC 0 3 2020 1000	Janelle Zunker CHPRC		DEC 0 3 2020 1000
Janelle Zunker CHPRC		DEC 0 3 2020 1025	Lesly Wall CHPRC		DEC 0 3 2020 1025
Lesly Wall CHPRC		DEC 0 3 2020 1100	Jeff Lucas CHPRC		DEC 0 3 2020 1100
Jeff Lucas CHPRC		DEC 0 3 2020 1445	J. C. Porter CHPRC		DEC 0 3 2020 1445

S = Soil      DS = Drum Solids  
 SE = Sediment      DL = Drum Liquids  
 SO = Solid      T = Tissue  
 SL = Sludge      WI = Wipe  
 W = Water      L = Liquid  
 O = Oil      V = Vegetation  
 A = Air      X = Other

<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:
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December 09, 2020

RJLG20C0191

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # W21-012-135		
						Page 1 of 1		
Collector: Juan Aguilar CHPRC		Contact/Requester: Karen Waters-Husted		Telephone No.: 509-376-4650				
SAF No.: W21-012		Sampling Origin: Hanford Site		Purchase Order/Charge Code: 300071				
Project Title: RCRA, December 2020		Logbook No.: HNF-N-506 -116184		Ice Chest No.: N/A				
Shipped To (Lab): <del>GEL Laboratories, LLC</del> <u>RJ Lee</u>		Method of Shipment Commercial Carrier		Bill of Lading/Air Bill No.: N/A 1.6				
Protocol: RCRA <u>15 DEC 02 2020</u>		Priority: 15 Days <b>PRIORITY</b>		Offsite Property No.: N/A				
POSSIBLE SAMPLE HAZARDS/REMARK ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1				SPECIAL INSTRUCTIONS N/A <u>RJLG20C0191</u> <u>RJLG20C0193</u> <u>11/12/03/2020</u>				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3Y8C3	<u>Y</u>	W	<u>DEC 03 2020</u>	<u>0841</u>	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

Relinquished By			Received By			Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time			
Juan Aguilar CHPRC	<u>[Signature]</u>	<u>DEC 03 2020 0930</u>	Lesly Wall CHPRC	<u>[Signature]</u>	<u>DEC 03 2020 0930</u>			
Lesly Wall CHPRC	<u>[Signature]</u>	<u>DEC 03 2020 1100</u>	<u>Jeff Lucas</u> CHPRC	<u>[Signature]</u>	<u>DEC 03 2020 1100</u>			
Jeff Lucas CHPRC	<u>[Signature]</u>	<u>DEC 03 2020 1445</u>	<u>TL Porter</u> CHPRC	<u>[Signature]</u>	<u>DEC 03 2020 1445</u>			
FINAL SAMPLE DISPOSITION			Disposal Method (e.g., Return to customer, per lab procedure, used in process):			Disposed By:		Date/Time:

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST <i>W012049 W012046</i>		C.O.C. # W21-012-090				
Collector: Jim Lochridge		Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650					
SAF No.: W21-012		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071					
Project Title: RCRA, December 2020		Logbook No.: HNF-N-506 -117	Ice Chest No.: N/A					
Shipped To (Lab): <u>GEL Laboratories, LLC</u> <i>RJ Lee</i>		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: N/A					
Protocol: RCRA <i>KS DEC 02 2020</i>		Priority: 15 Days <b>PRIORITY</b>	Offsite Property No.: <i>N/A 3.3</i>					
POSSIBLE SAMPLE HAZARDS/REMARK ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1			SPECIAL INSTRUCTIONS N/A <i>RJ Lee 0191 RILG20C0194 11/16/2020</i>					
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3Y844	<b>Y</b>	W	12/3/20	0933	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

Relinquished By			Received By			Matrix *	
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time	S = Soil	DS = Drum Solids
Jim Lochridge	<i>Jim Lochridge</i>	DEC 03 2020 1000	Janelle Zunker	<i>Janelle Zunker</i>	DEC 03 2020 1000	SE = Sediment	DL = Drum Liquids
Janelle Zunker	<i>Janelle Zunker</i>	DEC 03 2020 1025	Lesly Wall	<i>Lesly Wall</i>	DEC 03 2020 1025	SO = Solid	T = Tissue
Lesly Wall	<i>Lesly Wall</i>	DEC 03 2020 1100	Jeff Lucas	<i>Jeff Lucas</i>	DEC 03 2020 1100	SL = Sludge	WI = Wipe
Jeff Lucas	<i>Jeff Lucas</i>	DEC 03 2020 1445	JP Porter	<i>JP Porter</i>	DEC 03 2020 1445	W = Water	L = Liquid
						O = Oil	V = Vegetation
						A = Air	X = Other
FINAL SAMPLE DISPOSITION			Disposal Method (e.g., Return to customer, per lab procedure, used in process):			Disposed By:	
						Date/Time:	

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December 09, 2020  
RJLG20C0191

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CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # W21-012-080		
		RJLG20C012050 W012046				Page 1 of 1		
Collector: Jim Lochridge		Contact/Requester: Karen Waters-Husted		Telephone No.: 509-376-4650				
SAF No.: W21-012		Sampling Origin: Hanford Site		Purchase Order/Charge Code: 300071				
Project Title: RCRA, December 2020		Logbook No.: HNF-N-506 -117		Ice Chest No.: N/A				
Shipped To (Lab): GEL Laboratories, LLC RJ Lee		Method of Shipment Commercial Carrier		Bill of Lading/Air Bill No.: N/A 3.4				
Protocol: RCRA K5DEC 02 2020		Priority: 15 Days		PRIORITY		Offsite Property No.: N/A		
POSSIBLE SAMPLE HAZARDS/REMARK ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1				SPECIAL INSTRUCTIONS N/A RJLG20C0191 RJLG20C0195 11/20/2020				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3Y8K1	Y	W	12/3/20	1035	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

Relinquished By			Received By			Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time			
Jim Lochridge	[Signature]	DEC 03 2020 1120	Janelle Zunker CHPRC	[Signature]	DEC 03 2020 1120			
Janelle Zunker CHPRC	[Signature]	DEC 03 2020 1130	Jeff Lucas CHPRC	[Signature]	DEC 03 2020 1130			
Jeff Lucas CHPRC	[Signature]	DEC 03 2020 1445	JL Porter CHPRC	[Signature]	DEC 03 2020 1445			
FINAL SAMPLE DISPOSITION			Disposal Method (e.g., Return to customer, per lab procedure, used in process):			Disposed By:		Date/Time:



## WORK ORDER

Printed: 12/3/2020 4:46:07PM

W012046

RJ Lee Group Inc

Client: CH2M Hill Plateau Remediation Company - C01282F

Project: Hex Chrome

COC #: W21-012

PO #: 300071

Project Manager: Krystin Gilman

Project Number: 74392

SDG Number: RJLG20C0191

Report To:

CH2M Hill Plateau Remediation Company - C01282F

Heather Medley

825 Jadwin Avenue

Richland, WA 99352

Phone: (509) 373-6909

Fax:

Invoice To:

CH2M Hill Plateau Remediation Company - C01282F

Sample Management

825 Jadwin Avenue

Richland, WA 99352

Phone: (509) 376-6427

Fax:

Date Due: 12/18/2020 (11 day TAT)

Received By: Lynn Porter

Date Received: 12/03/20 14:45

Logged In By: Lynn Porter

Date Logged In: 12/03/20 15:04

Samples Received at: 2.4°C

Custody Seals Yes

Containers Intact Yes

COC/Labels Agree Yes

Preservation Confirmed No

Received On Ice Yes

RJLG ID	Sample Name	Analysis	Matrix	Date Sampled	TAT	Date Due
W012046-01	B3Y8B6 W21-012-133	Hexavalent Chromium by EPA 7196A	Non-Potable Water	12/03/20 08:01	11	12/18/2020
W012046-02	B3Y863 W21-012-097	Hexavalent Chromium by EPA 7196A	Non-Potable Water	12/03/20 08:39	11	12/18/2020
W012046-03	B3Y8C3 W21-012-135	Hexavalent Chromium by EPA 7196A	Non-Potable Water	12/03/20 08:41	11	12/18/2020
W012046-04	B3Y844 W21-012-090	Hexavalent Chromium by EPA 7196A	Non-Potable Water	12/03/20 09:33	11	12/18/2020
W012046-05	B3Y8K1 W21-012-080	Hexavalent Chromium by EPA 7196A	Non-Potable Water	12/03/20 10:35	11	12/18/2020