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ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Medley
Central Plateau Cleanup Company LLC
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JOB DESCRIPTION

I24-028, I24-030
SL57478-1

JOB NUMBER

160-57478-1

Eurofins St. Louis
13715 Rider Trail North
Earth City MO 63045

See page two for job notes and contact information.

1 of 18

Eurofins St. Louis

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization

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Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Laboratory Job ID: 160-57478-1
SDG: SL57478-1

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Chain of Custody 6
Definitions/Glossary 8
Method Summary 9
Sample Summary 10
Client Sample Results 11
QC Sample Results 13
QC Association Summary 17
Tracer Carrier Summary 18

Case Narrative

Client: Central Plateau Cleanup Company LLC Job ID: 160-57478-1
Project: I24-028, I24-030

Job ID: 160-57478-1 Eurofins St. Louis

SDG : SL57478-1
Number of Samples : 3
Sample Matrix : Water
Data Deliverable : Summary
Date SDG Closed : March 18, 2025

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition, all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method.

Eurofins TestAmerica attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Calculations are performed before rounding to avoid round-off errors in calculated results.

Proper preservation was noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

For Metals analyses performed in St. Louis, per standard practice, 6020 water and soil samples are initially prepared at 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate a narrative note; however, they are flagged "D" due to a limitation in the LIMS.

For volatile organic analysis, several analytes are considered poor performers and may not meet client QC limits. Per SMO direction, excursions outside the client's requested limits will include a non-conformance in the sections below.

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

The matrix for the Method Blank and LCS/LCSD is as close to the samples as can be reasonably achieved. Detailed information can be found in the most current revision of the associated SOP.

The method blank (MB) z-score is within limits, unless stated otherwise below.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** – For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** – For organic analyses, Method Blank contamination. The Method Blank contains the target analyte above the MDL/RL, and Method Blank is greater than 5% of the sample concentration.
- **B** – For inorganics and radiochemistry, Method Blank reported above the MDC/MDL.
- **J** – For organic analyses, the sample is estimated and less than the RL. If on Method Blank, indicates Method Blank contamination.
- **C** – For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL/RL and Method Blank concentration is greater than 5% of the sample concentration.
- **D** – For all analyses, the sample result was obtained from the analysis of a dilution. For ICPMS Metals analyses in St. Louis only, per standard practice, all samples are initially prepared at a 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner and will not be narrated below. Only dilutions above 2x will be

Case Narrative

Client: Central Plateau Cleanup Company LLC Job ID: 160-57478-1
Project: I24-028, I24-030

Job ID: 160-57478-1 (Continued) Eurofins St. Louis

narrated and considered a true dilution for these samples.

- **N** – For inorganics, the spike/spike duplicate recoveries are outside QC limits.
- **T** – For GCMS analysis, the spike/spike duplicate recoveries are outside QC limits.
- **O** – For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **X-** Organics – Sample concentration over calibration and/or surrogate recovery outside QC limits.
- **X -** Inorganics – The analyte present in the original sample is > 4x the spike concentration.
- **X -** Radiochemistry – Carrier or Tracer recovery is outside limits.
- **Z -** Sample was prepped or analyzed beyond the specified sample holding time.
- **y –** RPD is outside established limits.

Receipt
The samples were received on 3/18/2025 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved. The temperature of the cooler at receipt time was 15.1°C.

Method 6010D - Metals (ICP) - Total and Dissolved
Sample B4L716 (160-57478-2) was analyzed for Metals (ICP). The sample was prepared on 3/19/2025 and analyzed on 4/4/2025. Sample B4L717 (160-57478-3) was analyzed for Metals (ICP) - Dissolved. The sample was prepared on 3/19/2025 and analyzed on 4/4/2025.

ICP Metals Analytical Batch 711154:
Vanadium was detected in the method blank at levels that were above the method detection limit but below the reporting limit. The values should be considered estimated and have been flagged "B". If the associated sample reported a result above the MDL and/or RL and MB is greater than 5% the sample concentration, the result has been flagged "C".

The post digestion spike % recovery for calcium, magnesium, and sodium associated with batch 160-711154 was outside of control limits. The associated sample is: (160-57478-A-3-B PDS).

Method 6020B - Metals (ICP/MS) - Total and Dissolved
Sample B4L716 (160-57478-2) was analyzed for Metals (ICP/MS). The sample was prepared on 3/19/2025 and analyzed on 3/31/2025. Sample B4L717 (160-57478-3) was analyzed for Metals (ICP/MS) - Dissolved. The sample was prepared on 3/19/2025 and analyzed on 3/31/2025.

Method SR-03-RC - Total Beta Strontium (GFPC)
Sample B4L713 (160-57478-1) was analyzed for Total Beta Strontium (GFPC). The sample was prepared on 3/28/2025 and analyzed on 4/1/2025.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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, 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 signature on this report.

Reviewed and approved:
Casey Robertson
St. Louis Project Manager

Central Plateau Cleanup Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I24-028-285 PAGE 1 OF 1

Collector: Rick Crabtree/CPCCo	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I24-028	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 901852
Project Title: AEA, September 2024	**Logbook No.:** HNF-N-506 ~146/59	**Ice Chest No.:** GW5-906
Shipped To (Lab): TestAmerica St. Louis	**Method of Shipment:** Commercial Carrier	**Bill of Lading/Air Bill No.:** 772775937626
Protocol: SURV	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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

Low Volume Well. Do not use for QC.

Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservation
B4L713	N	W	MAR 17 2025	0950	1x1-L G/P	SMR_SR_RAD_GPC	6 Months	HNO3 to pH <2

160-57478 Chain of Custody

Relinquished By			Received By		
Print First and Last Name	*Signature*	*Date/Time*	*Print First and Last Name*	*Signature*	*Date/Time*
Rick Crabtree/CPCCo	Rick Crabtree	MAR 17 2025 1100	Troy Bacon/CPCCo	Troy Bacon	MAR 17 2025 1100
Troy Bacon/CPCCo	Troy Bacon	MAR 17 2025 1400	FEDEX		
FED EX			M. Pinetta		MAR 18 2025 0900
			Meadow Pinetta		

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

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

Printed On 1/30/2025 FSR ID = FSR154283 Report Format: 02/29/2024

SL57478-1
4/7/25
Rev. 0

Central Plateau Cleanup Company	**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**	C.O.C. # **I24-030-343** PAGE 1 OF 1

Collector: Rick Crabtree/CPCCo	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I24-030	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 901852
Project Title: CERC2, September 2024	**Logbook No.:** HNF-N-506 – 146/59	**Ice Chest No.:** GWS-906
Shipped To (Lab): TestAmerica St. Louis	**Method of Shipment:** Commercial Carrier	**Bill of Lading/Air Bill No.:** 772775937162Q
Protocol: CERCLA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** 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
Low Volume Well. Do not use for QC.

Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservation
B4L716	N	W	MAR 17 2025	0950	1x125-mL G/P	SMR_GW6010_01; SMR_GW6010_PHOSPHORUS; SMR_GW6020_01; SMR_GW6020_ALUMINUM; SMR_GW6020_STRONTIUM	6 Months	HNO3 to pH <2
B4L717	Y	W	MAR 17 2025		1x125-mL G/P	SMR_GW6010_01; SMR_GW6010_PHOSPHORUS; SMR_GW6020_01; SMR_GW6020_ALUMINUM; SMR_GW6020_STRONTIUM	6 Months	HNO3 to pH <2

Relinquished By			Received By		
Print First and Last Name	*Signature*	*Date/Time*	*Print First and Last Name*	*Signature*	*Date/Time*
Rick Crabtree/CPCCo	Rick Crabtree	MAR 17 2025 1100	Troy Bacon/CPCCo	Troy Bacon	MAR 17 2025 1100
Troy Bacon/CPCCo	Troy Bacon	MAR 17 2025 1400	FEDEX		
FED EX			M. Pinette		MAR 18 2025 0900
			Meadow Pinetti		

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

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

Printed On 1/30/2025 **FSR ID =** FSR154283 Report Format: 02/29/2024

SL57478-1 4/7/25 Rev. 0

Definitions/Glossary

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Estimated result. Result is less than the RL, but greater than MDL
C	The analyte was detected in both the sample and the associated QC blank, and the sample concentration was </= 5% the blank concentration.
D	The reported value is from a dilution.
U	Analyzed for but not detected.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method Summary

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET SL
6020B	Metals (ICP/MS)	SW846	EET SL
SR-03-RC	Total Beta Strontium (GFPC)	DOE	EET SL
3010A	Preparation, Total Metals	SW846	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL

Protocol References:

DOE = U.S. Department of Energy

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-57478-1	B4L713	Water	03/17/25 09:50	03/18/25 09:00
160-57478-2	B4L716	Water	03/17/25 09:50	03/18/25 09:00
160-57478-3	B4L717	Water	03/17/25 09:50	03/18/25 09:00

Client Sample Results

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Method: SW846 6010D - Metals (ICP)

Client Sample ID: B4L716
Date Collected: 03/17/25 09:50
Date Received: 03/18/25 09:00

Lab Sample ID: 160-57478-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**79100**		1000	300	ug/L		03/19/25 13:33	04/04/25 15:20	1
Iron	**1630**		100	39.2	ug/L		03/19/25 13:33	04/04/25 15:20	1
Magnesium	**15700**		1000	300	ug/L		03/19/25 13:33	04/04/25 15:20	1
Phosphorus	75.0	U	250	75.0	ug/L		03/19/25 13:33	04/04/25 15:20	1
Potassium	**5630**		5000	676	ug/L		03/19/25 13:33	04/04/25 15:20	1
Sodium	**52900**		1000	300	ug/L		03/19/25 13:33	04/04/25 15:20	1
Vanadium	**13.8**	**B C**	50.0	4.0	ug/L		03/19/25 13:33	04/04/25 15:20	1
Zinc	**43.1**		20.0	6.0	ug/L		03/19/25 13:33	04/04/25 15:20	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Client Sample ID: B4L717
Date Collected: 03/17/25 09:50
Date Received: 03/18/25 09:00

Lab Sample ID: 160-57478-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**79900**		1000	300	ug/L		03/19/25 13:33	04/04/25 15:25	1
Iron	39.2	U	100	39.2	ug/L		03/19/25 13:33	04/04/25 15:25	1
Magnesium	**16300**		1000	300	ug/L		03/19/25 13:33	04/04/25 15:25	1
Phosphorus	75.0	U	250	75.0	ug/L		03/19/25 13:33	04/04/25 15:25	1
Potassium	**5890**		5000	676	ug/L		03/19/25 13:33	04/04/25 15:25	1
Sodium	**54500**		1000	300	ug/L		03/19/25 13:33	04/04/25 15:25	1
Vanadium	**6.8**	**B C**	50.0	4.0	ug/L		03/19/25 13:33	04/04/25 15:25	1
Zinc	**19.0**	**B**	20.0	6.0	ug/L		03/19/25 13:33	04/04/25 15:25	1

Method: SW846 6020B - Metals (ICP/MS)

Client Sample ID: B4L716
Date Collected: 03/17/25 09:50
Date Received: 03/18/25 09:00

Lab Sample ID: 160-57478-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	46.4	U D	50.0	46.4	ug/L		03/19/25 13:29	03/31/25 16:37	2
Antimony	1.1	U D	5.0	1.1	ug/L		03/19/25 13:29	03/31/25 16:37	2
Arsenic	**2.2**	**B D**	5.0	1.6	ug/L		03/19/25 13:29	03/31/25 16:37	2
Barium	**78.4**	**D**	5.0	0.69	ug/L		03/19/25 13:29	03/31/25 16:37	2
Beryllium	0.20	U D	0.50	0.20	ug/L		03/19/25 13:29	03/31/25 16:37	2
Cadmium	0.20	U D	2.0	0.20	ug/L		03/19/25 13:29	03/31/25 16:37	2
Chromium	**435**	**D**	10.0	1.3	ug/L		03/19/25 13:29	03/31/25 16:37	2
Cobalt	**3.6**	**D**	3.0	0.27	ug/L		03/19/25 13:29	03/31/25 16:37	2
Copper	**3.8**	**B D**	10.0	1.2	ug/L		03/19/25 13:29	03/31/25 16:37	2
Lead	1.0	U D	3.0	1.0	ug/L		03/19/25 13:29	03/31/25 16:37	2
Manganese	**36.1**	**D**	5.0	2.3	ug/L		03/19/25 13:29	03/31/25 16:37	2
Molybdenum	**1.9**	**B D**	5.0	0.53	ug/L		03/19/25 13:29	03/31/25 16:37	2
Nickel	**244**	**D**	5.0	0.89	ug/L		03/19/25 13:29	03/31/25 16:37	2
Selenium	**1.4**	**B D**	5.0	0.67	ug/L		03/19/25 13:29	03/31/25 16:37	2
Silver	0.23	U D	2.0	0.23	ug/L		03/19/25 13:29	03/31/25 16:37	2
Strontium	**408**	**D**	10.0	1.5	ug/L		03/19/25 13:29	03/31/25 16:37	2
Thallium	0.38	U D	2.0	0.38	ug/L		03/19/25 13:29	03/31/25 16:37	2
Tin	0.75	U D	5.0	0.75	ug/L		03/19/25 13:29	03/31/25 16:37	2
Uranium	**3.6**	**D**	1.0	0.15	ug/L		03/19/25 13:29	03/31/25 16:37	2

Client Sample Results

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: B4L717
Date Collected: 03/17/25 09:50
Date Received: 03/18/25 09:00

Lab Sample ID: 160-57478-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	46.4	U D	50.0	46.4	ug/L		03/19/25 13:29	03/31/25 16:40	2
Antimony	1.1	U D	5.0	1.1	ug/L		03/19/25 13:29	03/31/25 16:40	2
Arsenic	1.6	U D	5.0	1.6	ug/L		03/19/25 13:29	03/31/25 16:40	2
Barium	**72.4**	**D**	5.0	0.69	ug/L		03/19/25 13:29	03/31/25 16:40	2
Beryllium	0.20	U D	0.50	0.20	ug/L		03/19/25 13:29	03/31/25 16:40	2
Cadmium	0.20	U D	2.0	0.20	ug/L		03/19/25 13:29	03/31/25 16:40	2
Chromium	**6.1**	**B D**	10.0	1.3	ug/L		03/19/25 13:29	03/31/25 16:40	2
Cobalt	**0.73**	**B D**	3.0	0.27	ug/L		03/19/25 13:29	03/31/25 16:40	2
Copper	**1.8**	**B D**	10.0	1.2	ug/L		03/19/25 13:29	03/31/25 16:40	2
Lead	1.0	U D	3.0	1.0	ug/L		03/19/25 13:29	03/31/25 16:40	2
Manganese	**5.0**	**D**	5.0	2.3	ug/L		03/19/25 13:29	03/31/25 16:40	2
Molybdenum	**0.86**	**B D**	5.0	0.53	ug/L		03/19/25 13:29	03/31/25 16:40	2
Nickel	**220**	**D**	5.0	0.89	ug/L		03/19/25 13:29	03/31/25 16:40	2
Selenium	**2.0**	**B D**	5.0	0.67	ug/L		03/19/25 13:29	03/31/25 16:40	2
Silver	0.23	U D	2.0	0.23	ug/L		03/19/25 13:29	03/31/25 16:40	2
Strontium	**408**	**D**	10.0	1.5	ug/L		03/19/25 13:29	03/31/25 16:40	2
Thallium	0.38	U D	2.0	0.38	ug/L		03/19/25 13:29	03/31/25 16:40	2
Tin	0.75	U D	5.0	0.75	ug/L		03/19/25 13:29	03/31/25 16:40	2
Uranium	**3.5**	**D**	1.0	0.15	ug/L		03/19/25 13:29	03/31/25 16:40	2

Method: DOE SR-03-RC - Total Beta Strontium (GFPC)

Client Sample ID: B4L713
Date Collected: 03/17/25 09:50
Date Received: 03/18/25 09:00

Lab Sample ID: 160-57478-1
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium 89/90	**5.36**		0.437	0.576	2.00	0.255	pCi/L	03/28/25 07:43	04/01/25 18:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*59.1*		*40 - 110*	*03/28/25 07:43*	*04/01/25 18:40*	*1*

QC Sample Results

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 160-708509/1-A
Matrix: Water
Analysis Batch: 711154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708509

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	300	U	1000	300	ug/L		03/19/25 13:33	04/04/25 14:21	1
Iron	39.2	U	100	39.2	ug/L		03/19/25 13:33	04/04/25 14:21	1
Magnesium	300	U	1000	300	ug/L		03/19/25 13:33	04/04/25 14:21	1
Phosphorus	75.0	U	250	75.0	ug/L		03/19/25 13:33	04/04/25 14:21	1
Potassium	676	U	5000	676	ug/L		03/19/25 13:33	04/04/25 14:21	1
Sodium	300	U	1000	300	ug/L		03/19/25 13:33	04/04/25 14:21	1
Vanadium	11.50	B	50.0	4.0	ug/L		03/19/25 13:33	04/04/25 14:21	1
Zinc	6.0	U	20.0	6.0	ug/L		03/19/25 13:33	04/04/25 14:21	1

Lab Sample ID: LCS 160-708509/2-A
Matrix: Water
Analysis Batch: 711154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708509

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	10000	9669		ug/L		97	80 - 120
Iron	10000	9636		ug/L		96	80 - 120
Magnesium	10000	9271		ug/L		93	80 - 120
Phosphorus	1000	973.2		ug/L		97	80 - 120
Potassium	10000	9069		ug/L		91	80 - 120
Sodium	10000	9282		ug/L		93	80 - 120
Vanadium	1000	925.0		ug/L		93	80 - 120
Zinc	1000	955.9		ug/L		96	80 - 120

Lab Sample ID: 160-57477-A-1-E MS
Matrix: Water
Analysis Batch: 711154

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 708509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	36000		10000	44870		ug/L		89	75 - 125
Iron	40.0	B	10000	9870		ug/L		98	75 - 125
Magnesium	10600		10000	19830		ug/L		92	75 - 125
Phosphorus	75.0	U	1000	996.4		ug/L		100	75 - 125
Potassium	4430	B	10000	13640		ug/L		92	75 - 125
Sodium	15700		10000	25320		ug/L		96	75 - 125
Vanadium	16.0	B C	1000	936.5		ug/L		92	75 - 125
Zinc	6.2	B	1000	963.0		ug/L		96	75 - 125

Lab Sample ID: 160-57477-A-1-F MSD
Matrix: Water
Analysis Batch: 711154

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 708509

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	36000		10000	45080		ug/L		91	75 - 125	0	20
Iron	40.0	B	10000	9818		ug/L		98	75 - 125	1	20
Magnesium	10600		10000	19850		ug/L		92	75 - 125	0	20
Phosphorus	75.0	U	1000	979.0		ug/L		98	75 - 125	2	20
Potassium	4430	B	10000	13810		ug/L		94	75 - 125	1	20
Sodium	15700		10000	25340		ug/L		96	75 - 125	0	20
Vanadium	16.0	B C	1000	919.2		ug/L		90	75 - 125	2	20

QC Sample Results

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 160-57477-A-1-F MSD
Matrix: Water
Analysis Batch: 711154

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 708509

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Zinc	6.2	B	1000	959.8		ug/L		95	75 - 125	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 160-708508/1-A
Matrix: Water
Analysis Batch: 710144

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708508

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	46.4	U D	50.0	46.4	ug/L		03/19/25 13:29	03/31/25 16:01	2
Antimony	1.1	U D	5.0	1.1	ug/L		03/19/25 13:29	03/31/25 16:01	2
Arsenic	1.6	U D	5.0	1.6	ug/L		03/19/25 13:29	03/31/25 16:01	2
Barium	0.69	U D	5.0	0.69	ug/L		03/19/25 13:29	03/31/25 16:01	2
Beryllium	0.20	U D	0.50	0.20	ug/L		03/19/25 13:29	03/31/25 16:01	2
Cadmium	0.20	U D	2.0	0.20	ug/L		03/19/25 13:29	03/31/25 16:01	2
Chromium	1.3	U D	10.0	1.3	ug/L		03/19/25 13:29	03/31/25 16:01	2
Cobalt	0.27	U D	3.0	0.27	ug/L		03/19/25 13:29	03/31/25 16:01	2
Copper	1.2	U D	10.0	1.2	ug/L		03/19/25 13:29	03/31/25 16:01	2
Lead	1.0	U D	3.0	1.0	ug/L		03/19/25 13:29	03/31/25 16:01	2
Manganese	2.3	U D	5.0	2.3	ug/L		03/19/25 13:29	03/31/25 16:01	2
Molybdenum	0.53	U D	5.0	0.53	ug/L		03/19/25 13:29	03/31/25 16:01	2
Nickel	0.89	U D	5.0	0.89	ug/L		03/19/25 13:29	03/31/25 16:01	2
Selenium	0.67	U D	5.0	0.67	ug/L		03/19/25 13:29	03/31/25 16:01	2
Silver	0.23	U D	2.0	0.23	ug/L		03/19/25 13:29	03/31/25 16:01	2
Strontium	1.5	U D	10.0	1.5	ug/L		03/19/25 13:29	03/31/25 16:01	2
Thallium	0.38	U D	2.0	0.38	ug/L		03/19/25 13:29	03/31/25 16:01	2
Tin	0.75	U D	5.0	0.75	ug/L		03/19/25 13:29	03/31/25 16:01	2
Uranium	0.15	U D	1.0	0.15	ug/L		03/19/25 13:29	03/31/25 16:01	2

Lab Sample ID: LCS 160-708508/2-A
Matrix: Water
Analysis Batch: 710144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10000	9889	D	ug/L		99	80 - 120
Antimony	500	486.3	D	ug/L		97	80 - 120
Arsenic	1000	997.2	D	ug/L		100	80 - 120
Barium	1000	956.9	D	ug/L		96	80 - 120
Beryllium	100	96.51	D	ug/L		97	80 - 120
Cadmium	1000	982.0	D	ug/L		98	80 - 120
Chromium	1000	1025	D	ug/L		103	80 - 120
Cobalt	1000	1019	D	ug/L		102	80 - 120
Copper	1000	1018	D	ug/L		102	80 - 120
Lead	1000	986.8	D	ug/L		99	80 - 120
Manganese	1000	1043	D	ug/L		104	80 - 120
Molybdenum	495	497.5	D	ug/L		101	80 - 120
Nickel	1000	1055	D	ug/L		105	80 - 120
Selenium	500	495.9	D	ug/L		99	80 - 120
Silver	200	197.9	D	ug/L		99	80 - 120

QC Sample Results

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 160-708508/2-A
Matrix: Water
Analysis Batch: 710144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Strontium	1000	994.2	D	ug/L		99	80 - 120
Thallium	200	196.6	D	ug/L		98	80 - 120
Tin	1000	964.7	D	ug/L		96	80 - 120
Uranium	1000	1004	D	ug/L		100	80 - 120

Lab Sample ID: 160-57477-A-1-B MS
Matrix: Water
Analysis Batch: 710144

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 708508

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	46.4	U D	10000	10040	D	ug/L		100	75 - 125
Antimony	1.1	U D	500	489.9	D	ug/L		98	75 - 125
Arsenic	3.2	B D	1000	979.7	D	ug/L		98	75 - 125
Barium	44.2	D	1000	998.6	D	ug/L		95	75 - 125
Beryllium	0.20	U D	100	94.38	D	ug/L		94	75 - 125
Cadmium	0.20	U D	1000	980.1	D	ug/L		98	75 - 125
Chromium	5.9	B D	1000	1031	D	ug/L		103	75 - 125
Cobalt	0.27	U D	1000	967.9	D	ug/L		97	75 - 125
Copper	1.9	B D	1000	974.8	D	ug/L		97	75 - 125
Lead	1.0	U D	1000	994.6	D	ug/L		99	75 - 125
Manganese	3.8	B D	1000	1017	D	ug/L		101	75 - 125
Molybdenum	2.4	B D	495	497.5	D	ug/L		100	75 - 125
Nickel	1.7	B D	1000	1007	D	ug/L		100	75 - 125
Selenium	1.1	B D	500	486.2	D	ug/L		97	75 - 125
Silver	0.23	U D	200	195.8	D	ug/L		98	75 - 125
Strontium	227	D	1000	1210	D	ug/L		98	75 - 125
Thallium	0.38	U D	200	198.3	D	ug/L		99	75 - 125
Tin	2.0	B D	1000	986.8	D	ug/L		98	75 - 125
Uranium	0.41	B D	1000	1025	D	ug/L		102	75 - 125

Lab Sample ID: 160-57477-A-1-C MSD
Matrix: Water
Analysis Batch: 710144

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 708508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	46.4	U D	10000	9771	D	ug/L		98	75 - 125	3	20
Antimony	1.1	U D	500	485.3	D	ug/L		97	75 - 125	1	20
Arsenic	3.2	B D	1000	994.8	D	ug/L		99	75 - 125	2	20
Barium	44.2	D	1000	985.9	D	ug/L		94	75 - 125	1	20
Beryllium	0.20	U D	100	93.53	D	ug/L		94	75 - 125	1	20
Cadmium	0.20	U D	1000	975.4	D	ug/L		98	75 - 125	0	20
Chromium	5.9	B D	1000	997.9	D	ug/L		99	75 - 125	3	20
Cobalt	0.27	U D	1000	984.4	D	ug/L		98	75 - 125	2	20
Copper	1.9	B D	1000	987.1	D	ug/L		99	75 - 125	1	20
Lead	1.0	U D	1000	988.0	D	ug/L		99	75 - 125	1	20
Manganese	3.8	B D	1000	1035	D	ug/L		103	75 - 125	2	20
Molybdenum	2.4	B D	495	491.1	D	ug/L		99	75 - 125	1	20
Nickel	1.7	B D	1000	1020	D	ug/L		102	75 - 125	1	20
Selenium	1.1	B D	500	491.4	D	ug/L		98	75 - 125	1	20

QC Sample Results

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 160-57477-A-1-C MSD
Matrix: Water
Analysis Batch: 710144

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 708508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	0.23	U D	200	195.1	D	ug/L		98	75 - 125	0	20
Strontium	227	D	1000	1197	D	ug/L		97	75 - 125	1	20
Thallium	0.38	U D	200	198.3	D	ug/L		99	75 - 125	0	20
Tin	2.0	B D	1000	981.0	D	ug/L		98	75 - 125	1	20
Uranium	0.41	B D	1000	1014	D	ug/L		101	75 - 125	1	20

Method: SR-03-RC - Total Beta Strontium (GFPC)

Lab Sample ID: MB 160-709799/1-A
Matrix: Water
Analysis Batch: 710297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 709799

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium 89/90	0.128	U	0.117	0.117	2.00	0.187	pCi/L	03/28/25 07:43	04/01/25 18:37	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*94.4*		*40 - 110*	*03/28/25 07:43*	*04/01/25 18:37*	*1*

Lab Sample ID: LCS 160-709799/2-A
Matrix: Water
Analysis Batch: 710297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 709799

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Strontium 89/90			7.00	6.038		0.568	2.00	0.174	pCi/L	86	80 - 120		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*90.4*		*40 - 110*

Lab Sample ID: LCSD 160-709799/22-A
Matrix: Water
Analysis Batch: 710156

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 709799

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RPD	RPD Limit
Strontium 89/90			7.00	6.052		0.567	2.00	0.188	pCi/L	86	80 - 120	0	20

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*90.6*		*40 - 110*

QC Association Summary

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Metals

Prep Batch: 708508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57478-2	B4L716	Total/NA	Water	3010A	
160-57478-3	B4L717	Dissolved	Water	3010A	
MB 160-708508/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-708508/2-A	Lab Control Sample	Total/NA	Water	3010A	
160-57477-A-1-B MS	Matrix Spike	Total/NA	Water	3010A	
160-57477-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

Prep Batch: 708509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57478-2	B4L716	Total/NA	Water	3010A	
160-57478-3	B4L717	Dissolved	Water	3010A	
MB 160-708509/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-708509/2-A	Lab Control Sample	Total/NA	Water	3010A	
160-57477-A-1-E MS	Matrix Spike	Total/NA	Water	3010A	
160-57477-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

Analysis Batch: 710144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57478-2	B4L716	Total/NA	Water	6020B	708508
160-57478-3	B4L717	Dissolved	Water	6020B	708508
MB 160-708508/1-A	Method Blank	Total/NA	Water	6020B	708508
LCS 160-708508/2-A	Lab Control Sample	Total/NA	Water	6020B	708508
160-57477-A-1-B MS	Matrix Spike	Total/NA	Water	6020B	708508
160-57477-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	6020B	708508

Analysis Batch: 711154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57478-2	B4L716	Total/NA	Water	6010D	708509
160-57478-3	B4L717	Dissolved	Water	6010D	708509
MB 160-708509/1-A	Method Blank	Total/NA	Water	6010D	708509
LCS 160-708509/2-A	Lab Control Sample	Total/NA	Water	6010D	708509
160-57477-A-1-E MS	Matrix Spike	Total/NA	Water	6010D	708509
160-57477-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	6010D	708509

Rad

Prep Batch: 709799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57478-1	B4L713	Total/NA	Water	PrecSep_0	
MB 160-709799/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-709799/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-709799/22-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Tracer/Carrier Summary

Client: Central Plateau Cleanup Company LLC
Project/Site: I24-028, I24-030

Job ID: 160-57478-1
SDG: SL57478-1

Method: SR-03-RC - Total Beta Strontium (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Sr							
Lab Sample ID	Client Sample ID	(40-110)							
160-57478-1	B4L713	59.1							
LCS 160-709799/2-A	Lab Control Sample	90.4							
LCSD 160-709799/22-A	Lab Control Sample Dup	90.6							
MB 160-709799/1-A	Method Blank	94.4							

Tracer/Carrier Legend

Sr = Sr Carrier