

STATE OF
COLORADO

Hays - DNR, Peter <peter.hays@state.co.us>

B25092556_Schwartzwalder Mine

1 message

Stacie M. Helms <SHelms@energylab.com>

Tue, Oct 21, 2025 at 4:13 PM

To: "Adam.billin@linkan.com" <Adam.billin@linkan.com>, "Alex.schwiebert@linkan.com" <Alex.schwiebert@linkan.com>, "ap@linkan.com" <ap@linkan.com>, "chris.prosper@linkan.com" <chris.prosper@linkan.com>, "Peter.hays@state.co.us" <Peter.hays@state.co.us>

Thank you for choosing Energy Laboratories Inc. for your analytical testing needs. Your final report for the samples received has been attached to this message. A hard copy will only be mailed if previously requested.

If you have questions about your results, our Project Management team is happy to help. You can reach them at billingspm@energylab.com or **406-252-6325**.

We're always working to improve—and your input matters.

Please take 30 seconds to share your feedback by clicking the link or scanning the QR code below:

👉 [\[Give Feedback\]](#)



Your feedback goes directly to our leadership team to ensure we meet your expectations.

Please do not reply to this email.

Sincerely,

Energy Laboratories, Inc.

Trust our People. Trust our Data.

Stacie Helms | Administrative Assistant | Billings, MT

O: 406-869-6295 | shelms@energylab.com | www.energylab.com

2 attachments

B25092556-EDD-ELICSV-WITH-HEADER-1.CSV
9K



B25092556-FINAL REPORT-1.PDF

2553K



ANALYTICAL SUMMARY REPORT

October 28, 2025

Linkan Engineering
2720 Ruby Vista Dr Ste 101
Elko, NV 89801-4943

Work Order: B25100172 Quote ID: B17287

Project Name: Schwartzwalder Mine

Energy Laboratories Inc Billings MT received the following 1 sample for Linkan Engineering on 10/2/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B25100172-001	Outfall 001A	10/01/25 15:15	10/02/25	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Potentially Dissolved Metals by ICP/ICPMS, Total Recoverable Cyanide, Weak Acid Dissociable Chromium, Hexavalent Chromium, Total Recoverable Trivalent Mercury, Total Anions by Ion Chromatography Metals Digestion by E200.2 Preparation, Potentially Dissolved Filtration Mercury Digestion by E245.1 Radium 226 + Radium 228 Radium 226, Dissolved Radium 226, Total Radium 228, Total Sulfide, Methylene Blue Colorimetric

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 So. 27th Street, Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



CLIENT: Linkan Engineering
Project: Schwartzwalder Mine
Work Order: B25100172

Report Date: 10/28/25

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, PO Box 247, Casper, WY, EPA Number WY00002.



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Linkan Engineering
Project: Schwartzwalder Mine
Lab ID: B25100172-001
Client Sample ID: Outfall 001A

Report Date: 10/28/25
Collection Date: 10/01/25 15:15
Date Received: 10/02/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Chloride	0.9	mg/L	J	1		E300.0	10/18/25 14:56 / jmm
Sulfate	4	mg/L		1		E300.0	10/18/25 14:56 / jmm
Fluoride	0.02	mg/L	J	0.1		E300.0	10/18/25 14:56 / jmm
Cyanide, Weak Acid Dissociable	ND	ug/L		1		Kelada-01	10/06/25 12:00 / fap
Sulfide	ND	mg/L		0.04		A4500-S D	10/07/25 09:56 / pmw
METALS, DISSOLVED							
Chromium, Hexavalent	ND	ug/L		10		A3500-Cr B	10/02/25 12:38 / jks
Iron	4	ug/L	J	20		E200.8	10/04/25 06:02 / jks
Manganese	0.2	ug/L	J	1		E200.8	10/04/25 06:02 / jks
METALS, POTENTIALLY DISSOLVED							
Cadmium	ND	ug/L		1		E200.8	10/09/25 23:04 / jks
Copper	0.3	ug/L	JL	0.5		E200.8	10/09/25 23:04 / jks
Nickel	0.8	ug/L	J	5		E200.8	10/09/25 23:04 / jks
Selenium	ND	ug/L		1		E200.8	10/09/25 23:04 / jks
Silver	ND	ug/L	L	0.04		E200.8	10/09/25 23:04 / jks
Zinc	ND	ug/L		10		E200.8	10/09/25 23:04 / jks
METALS, TOTAL RECOVERABLE							
Arsenic	7	ug/L		1		E200.8	10/07/25 22:25 / jks
Chromium	ND	ug/L		5		E200.8	10/07/25 22:25 / jks
Chromium, Trivalent	ND	ug/L		10		Calculation	10/20/25 12:15 / klc
Iron	10	ug/L	J	20		E200.8	10/07/25 22:25 / jks
Uranium	15.3	ug/L		0.3		E200.8	10/07/25 22:25 / jks
METALS, TOTAL							
Antimony	ND	ug/L		1		E200.8	10/09/25 13:22 / jks
Boron	170	ug/L		50		E200.7	10/08/25 17:59 / jaw
Mercury	ND	ug/L		0.1		E245.1	10/08/25 11:22 / nrb
Thallium	ND	ug/L		0.5		E200.8	10/07/25 22:25 / jks
RADIONUCLIDES - DISSOLVED							
Radium 226	0.07	pCi/L	U			E903.0	10/20/25 10:35 / eli-ca
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/20/25 10:35 / eli-ca
Radium 226 MDC	0.2	pCi/L				E903.0	10/20/25 10:35 / eli-ca
RADIONUCLIDES - TOTAL							
Radium 226	0.06	pCi/L	U			E903.0	10/23/25 10:06 / eli-ca
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/23/25 10:06 / eli-ca
Radium 226 MDC	0.2	pCi/L				E903.0	10/23/25 10:06 / eli-ca
Radium 228	0.3	pCi/L	U			RA-05	10/15/25 13:30 / eli-ca
Radium 228 precision (±)	0.6	pCi/L				RA-05	10/15/25 13:30 / eli-ca
Radium 228 MDC	1.0	pCi/L				RA-05	10/15/25 13:30 / eli-ca
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	10/23/25 12:25 / eli-ca

Report Definitions:
 RL - Analyte Reporting Limit
 QCL - Quality Control Limit
 J - Estimated value - analyte was present but less than the Reporting Limit (RL)
 U - Not detected

MCL - Maximum Contaminant Level
 ND - Not detected at the Reporting Limit (RL)
 L - Lowest available reporting limit for the analytical method used and/or volume submitted



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Linkan Engineering
Project: Schwartzwalder Mine
Lab ID: B25100172-001
Client Sample ID: Outfall 001A

Report Date: 10/28/25
Collection Date: 10/01/25 15:15
Date Received: 10/02/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Radium 226 + Radium 228 precision ($\pm$)	0.6	pCi/L				A7500-RA	10/23/25 12:25 / eli-ca
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	10/23/25 12:25 / eli-ca

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: B25100172

Report Date: 10/23/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0								Batch: RA226-11860		
Lab ID: LCS-RA226-11860	3	Laboratory Control Sample				Run: TENNELEC-3_251009A		10/20/25 10:35		
Radium 226		10	pCi/L	103		70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.21	pCi/L							
Lab ID: MB-RA226-11860	3	Method Blank				Run: TENNELEC-3_251009A		10/20/25 10:35		
Radium 226		-0.01	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: B25100172-001GDUP	3	Sample Duplicate				Run: TENNELEC-3_251009A		10/20/25 10:35		
Radium 226		0.098	pCi/L					28	30	U
Radium 226 precision (±)		0.14	pCi/L							
Radium 226 MDC		0.22	pCi/L							
- The RER result is 0.12.										
Method: E903.0								Batch: RA226-11861RR		
Lab ID: LCS-RA226-11861	3	Laboratory Control Sample				Run: TENNELEC-4_251009D		10/23/25 10:06		
Radium 226		8.5	pCi/L	85		70	130			
Radium 226 precision (±)		1.4	pCi/L							
Radium 226 MDC		0.12	pCi/L							
Lab ID: MB-RA226-11861	3	Method Blank				Run: TENNELEC-4_251009D		10/23/25 10:06		
Radium 226		0.04	pCi/L							U
Radium 226 precision (±)		0.08	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25100134-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_251009D		10/23/25 10:06		
Radium 226		0.069	pCi/L					46	30	UR
Radium 226 precision (±)		0.082	pCi/L							
Radium 226 MDC		0.13	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.36.										

Qualifiers:

RL - Analyte Reporting Limit

R - Relative Percent Difference (RPD) exceeds advisory limit

ND - Not detected at the Reporting Limit (RL)

U - Not detected



QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: B25100172

Report Date: 10/23/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7796
Lab ID: LCS-228-RA226-11861	3	Laboratory Control Sample			Run: TENNELEC-4_251009A					10/15/25 13:30
Radium 228		9.0	pCi/L	101		70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.85	pCi/L							
Lab ID: MB-RA226-11861	3	Method Blank			Run: TENNELEC-4_251009A					10/15/25 13:30
Radium 228		0.4	pCi/L							U
Radium 228 precision (±)		0.5	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25100134-007ADUP	3	Sample Duplicate			Run: TENNELEC-4_251009A					10/15/25 13:30
Radium 228		0.63	pCi/L					12	30	U
Radium 228 precision (±)		0.50	pCi/L							
Radium 228 MDC		0.78	pCi/L							
- The RER result is 0.12.										

Qualifiers:

RL - Analyte Reporting Limit
U - Not detected

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A3500-Cr B								Analytical Run: SPEC3_251002A		
Lab ID: CCV	Continuing Calibration Verification Standard			10/02/25 12:38						
Chromium, Hexavalent		0.0937	mg/L	0.010	94	90	110			
Method: A3500-Cr B								Batch: R451321		
Lab ID: MBLK	Method Blank			10/02/25 12:38						
Chromium, Hexavalent		ND	mg/L	0.003				Run: SPEC3_251002A		
Lab ID: LCS	Laboratory Control Sample			10/02/25 12:38						
Chromium, Hexavalent		0.0982	mg/L	0.010	98	90	110			
Lab ID: B25100172-001AMS	Sample Matrix Spike			10/02/25 12:38						
Chromium, Hexavalent		0.0972	mg/L	0.010	97	80	120			
Lab ID: B25100172-001AMSD	Sample Matrix Spike Duplicate			10/02/25 12:38						
Chromium, Hexavalent		0.0972	mg/L	0.010	97	80	120	0.0	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-S D										Batch: R451582
Lab ID: MBLK		Method Blank					Run: SPEC3_251007A			10/07/25 09:56
Sulfide		ND	mg/L	0.007						
Lab ID: LCS		Laboratory Control Sample					Run: SPEC3_251007A			10/07/25 09:56
Sulfide		0.197	mg/L	0.040	95	85	115			
Lab ID: B25100068-001DMS		Sample Matrix Spike					Run: SPEC3_251007A			10/07/25 09:56
Sulfide		0.354	mg/L	0.040	85	70	130			
Lab ID: B25100068-001DMSD		Sample Matrix Spike Duplicate					Run: SPEC3_251007A			10/07/25 09:56
Sulfide		0.350	mg/L	0.040	84	70	130	1.2	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.7							Analytical Run: ICP205-B_251008A		
Lab ID:	ICV	Continuing Calibration Verification Standard						10/08/25 15:27		
Boron		2.58	mg/L	0.10	103	95	105			
Lab ID:	CCV	Continuing Calibration Verification Standard						10/08/25 17:54		
Boron		2.48	mg/L	0.10	99	90	110			
Method:	E200.7							Batch: 203888		
Lab ID:	MB-203888	Method Blank			Run: ICP205-B_251008A			10/08/25 17:37		
Boron		ND	mg/L	0.008						
Lab ID:	LCS3-203888	Laboratory Control Sample			Run: ICP205-B_251008A			10/08/25 17:39		
Boron		1.02	mg/L	0.10	102	85	115			
Lab ID:	B25100179-001CMS3	Sample Matrix Spike			Run: ICP205-B_251008A			10/08/25 18:03		
Boron		1.30	mg/L	0.050	106	70	130			
Lab ID:	B25100179-001CMSD3	Sample Matrix Spike Duplicate			Run: ICP205-B_251008A			10/08/25 18:05		
Boron		1.28	mg/L	0.050	105	70	130	1.1	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS207-B_251008A		
Lab ID: QCS	7	Initial Calibration Verification Standard							10/09/25 12:05	
Antimony		0.0405	mg/L	0.0050	101	90	110			
Cadmium		0.0202	mg/L	0.0010	101	90	110			
Copper		0.0390	mg/L	0.010	98	90	110			
Nickel		0.0389	mg/L	0.0050	97	90	110			
Selenium		0.0400	mg/L	0.0050	100	90	110			
Silver		0.0193	mg/L	0.0050	97	90	110			
Zinc		0.0402	mg/L	0.0050	100	90	110			
Lab ID: CCV	7	Continuing Calibration Verification Standard							10/09/25 12:11	
Antimony		0.0490	mg/L	0.0050	98	90	110			
Cadmium		0.0476	mg/L	0.0010	95	90	110			
Copper		0.0464	mg/L	0.010	93	90	110			
Nickel		0.0461	mg/L	0.0050	92	90	110			
Selenium		0.0486	mg/L	0.0050	97	90	110			
Silver		0.0190	mg/L	0.0050	95	90	110			
Zinc		0.0484	mg/L	0.0050	97	90	110			
Lab ID: QCS	7	Initial Calibration Verification Standard							10/09/25 19:47	
Antimony		0.0416	mg/L	0.0050	104	90	110			
Cadmium		0.0205	mg/L	0.0010	103	90	110			
Copper		0.0396	mg/L	0.010	99	90	110			
Nickel		0.0400	mg/L	0.0050	100	90	110			
Selenium		0.0400	mg/L	0.0050	100	90	110			
Silver		0.0198	mg/L	0.0050	99	90	110			
Zinc		0.0402	mg/L	0.0050	101	90	110			
Lab ID: CCV	7	Continuing Calibration Verification Standard							10/09/25 22:10	
Antimony		0.0502	mg/L	0.0050	100	90	110			
Cadmium		0.0483	mg/L	0.0010	97	90	110			
Copper		0.0462	mg/L	0.010	92	90	110			
Nickel		0.0471	mg/L	0.0050	94	90	110			
Selenium		0.0481	mg/L	0.0050	96	90	110			
Silver		0.0190	mg/L	0.0050	95	90	110			
Zinc		0.0475	mg/L	0.0050	95	90	110			
Method: E200.8								Batch: 203888		
Lab ID: MB-203888	6	Method Blank							Run: ICPMS207-B_251008A 10/09/25 12:41	
Antimony		ND	mg/L	0.00008						
Arsenic		ND	mg/L	0.0002						
Chromium		ND	mg/L	0.0005						
Iron		ND	mg/L	0.004						
Thallium		0.0003	mg/L	0.0002						
Uranium		ND	mg/L	0.00002						
Method: E200.8								Batch: R451692		

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R451692
Lab ID: LRB	6	Method Blank				Run: ICPMS207-B_251008A				10/08/25 12:33
Cadmium		ND	mg/L	3E-6						
Copper		ND	mg/L	0.00005						
Nickel		ND	mg/L	0.0001						
Selenium		ND	mg/L	0.00003						
Silver		ND	mg/L	3E-6						
Zinc		ND	mg/L	0.001						
Lab ID: LFB	6	Laboratory Fortified Blank				Run: ICPMS207-B_251008A				10/09/25 09:23
Cadmium		0.0523	mg/L	0.0010	105	85	115			
Copper		0.0492	mg/L	0.010	98	85	115			
Nickel		0.0499	mg/L	0.0050	100	85	115			
Selenium		0.0523	mg/L	0.0050	105	85	115			
Silver		0.0203	mg/L	0.0050	102	85	115			
Zinc		0.0509	mg/L	0.0050	102	85	115			
Lab ID: B25100321-001BMS	6	Sample Matrix Spike				Run: ICPMS207-B_251008A				10/09/25 08:47
Cadmium		0.0507	mg/L	0.0010	101	70	130			
Copper		0.0520	mg/L	0.0050	96	70	130			
Nickel		0.0498	mg/L	0.010	99	70	130			
Selenium		0.0525	mg/L	0.0010	102	70	130			
Silver		0.0198	mg/L	0.0010	99	70	130			
Zinc		0.0648	mg/L	0.010	100	70	130			
Lab ID: B25100321-001BMSD	6	Sample Matrix Spike Duplicate				Run: ICPMS207-B_251008A				10/09/25 09:05
Cadmium		0.0521	mg/L	0.0010	104	70	130	2.8	20	
Copper		0.0525	mg/L	0.0050	97	70	130	0.9	20	
Nickel		0.0496	mg/L	0.010	98	70	130	0.3	20	
Selenium		0.0531	mg/L	0.0010	103	70	130	1.1	20	
Silver		0.0203	mg/L	0.0010	102	70	130	2.9	20	
Zinc		0.0644	mg/L	0.010	99	70	130	0.5	20	
Lab ID: MB-203928	6	Method Blank				Run: ICPMS207-B_251008A				10/09/25 22:58
Cadmium		ND	mg/L	9E-6						
Copper		0.0002	mg/L	0.00005						
Nickel		0.0005	mg/L	0.0001						
Selenium		ND	mg/L	0.00003						
Silver		ND	mg/L	3E-6						
Zinc		ND	mg/L	0.001						
Lab ID: B25100504-001BMS	6	Sample Matrix Spike				Run: ICPMS207-B_251008A				10/09/25 23:16
Cadmium		0.0522	mg/L	0.0010	104	70	130			
Copper		0.0529	mg/L	0.0050	100	70	130			
Nickel		0.0507	mg/L	0.0050	99	70	130			
Selenium		0.0523	mg/L	0.0010	105	70	130			
Silver		0.0207	mg/L	0.0010	103	70	130			
Zinc		0.113	mg/L	0.010	98	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R451692
Lab ID: B25100504-001BMSD	6	Sample Matrix Spike Duplicate				Run: ICPMS207-B_251008A				10/09/25 23:22
Cadmium		0.0516	mg/L	0.0010	103	70	130	1.3	20	
Copper		0.0513	mg/L	0.0050	96	70	130	3.2	20	
Nickel		0.0488	mg/L	0.0050	96	70	130	3.8	20	
Selenium		0.0524	mg/L	0.0010	105	70	130	0.1	20	
Silver		0.0202	mg/L	0.0010	101	70	130	2.6	20	
Zinc		0.111	mg/L	0.010	93	70	130	1.8	20	
Method: E200.8										Analytical Run: ICPMS208-B_251003A
Lab ID: QCS	2	Initial Calibration Verification Standard								10/04/25 05:14
Iron		0.203	mg/L	0.020	102	90	110			
Manganese		0.192	mg/L	0.0050	96	90	110			
Lab ID: CCV	2	Continuing Calibration Verification Standard								10/04/25 05:20
Iron		1.28	mg/L	0.020	98	90	110			
Manganese		0.0494	mg/L	0.0050	99	90	110			
Method: E200.8										Batch: R451454
Lab ID: LRB	2	Method Blank				Run: ICPMS208-B_251003A				10/03/25 14:11
Iron		ND	mg/L	0.004						
Manganese		ND	mg/L	0.00005						
Lab ID: LFB	2	Laboratory Fortified Blank				Run: ICPMS208-B_251003A				10/03/25 14:29
Iron		4.98	mg/L	0.020	100	85	115			
Manganese		0.0482	mg/L	0.0050	96	85	115			
Lab ID: B25100220-001BMS	2	Sample Matrix Spike				Run: ICPMS208-B_251003A				10/04/25 06:32
Iron		16.8	mg/L	0.020	100	70	130			
Manganese		0.284	mg/L	0.0010		70	130			A
Lab ID: B25100220-001BMSD	2	Sample Matrix Spike Duplicate				Run: ICPMS208-B_251003A				10/04/25 06:38
Iron		16.6	mg/L	0.020	97	70	130	1.0	20	
Manganese		0.273	mg/L	0.0010		70	130	4.1	20	A

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

A - Analyte level was greater than four times the spike level - in accordance with the method, percent recovery is not calculated

QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8						Analytical Run: ICPMS209-B_251006A				
Lab ID: CCV	5	Continuing Calibration Verification Standard							10/07/25 21:20	
Arsenic		0.0474	mg/L	0.0050	95	90	110			
Chromium		0.0484	mg/L	0.010	97	90	110			
Iron		1.24	mg/L	0.020	95	90	110			
Thallium		0.0482	mg/L	0.0050	96	90	110			
Uranium		0.0488	mg/L	0.00030	98	90	110			
Lab ID: QCS	5	Initial Calibration Verification Standard							10/07/25 18:53	
Arsenic		0.0376	mg/L	0.0050	94	90	110			
Chromium		0.0379	mg/L	0.010	95	90	110			
Iron		0.191	mg/L	0.020	96	90	110			
Thallium		0.0382	mg/L	0.0050	95	90	110			
Uranium		0.0378	mg/L	0.00030	94	90	110			
Method: E200.8						Batch: 203888				
Lab ID: MB-203888	6	Method Blank				Run: ICPMS209-B_251006A		10/07/25 21:09		
Antimony		ND	mg/L	0.00002						
Arsenic		ND	mg/L	0.00003						
Chromium		ND	mg/L	0.0003						
Iron		ND	mg/L	0.004						
Thallium		ND	mg/L	0.00008						
Uranium		0.0009	mg/L	0.00001						
Lab ID: LCS4-203888	6	Laboratory Control Sample				Run: ICPMS209-B_251006A		10/07/25 21:14		
Antimony		0.0944	mg/L	0.0050	94	85	115			
Arsenic		0.0932	mg/L	0.0010	93	85	115			
Chromium		0.0928	mg/L	0.0010	93	85	115			
Iron		0.477	mg/L	0.010	95	85	115			
Thallium		0.0986	mg/L	0.0010	99	85	115			
Uranium		0.0950	mg/L	0.00030	95	85	115			
Lab ID: B25100172-001CMS4	6	Sample Matrix Spike				Run: ICPMS209-B_251006A		10/07/25 22:31		
Antimony		0.0966	mg/L	0.0010	94	70	130			
Arsenic		0.0949	mg/L	0.0010	88	70	130			
Chromium		0.0888	mg/L	0.0050	89	70	130			
Iron		0.721	mg/L	0.020	142	70	130			S
Thallium		0.0961	mg/L	0.00050	96	70	130			
Uranium		0.112	mg/L	0.00030	96	70	130			
Lab ID: B25100172-001CMSD4	6	Sample Matrix Spike Duplicate				Run: ICPMS209-B_251006A		10/07/25 22:47		
Antimony		0.103	mg/L	0.0010	100	70	130	6.3	20	
Arsenic		0.0952	mg/L	0.0010	89	70	130	0.4	20	
Chromium		0.0892	mg/L	0.0050	89	70	130	0.5	20	
Iron		0.457	mg/L	0.020	89	70	130	45	20	R
Thallium		0.0996	mg/L	0.00050	100	70	130	3.6	20	
Uranium		0.119	mg/L	0.00030	104	70	130	6.8	20	

Qualifiers:

RL - Analyte Reporting Limit

R - Relative Percent Difference (RPD) exceeds advisory limit

ND - Not detected at the Reporting Limit (RL)

S - Spike recovery outside of advisory limits



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1										
Analytical Run: HGCV205-B_251008A										
Lab ID: ICV		Initial Calibration Verification Standard								
Mercury		0.00186	mg/L	0.00010	93	90	110			10/08/25 10:25
Lab ID: CCV1		Continuing Calibration Verification Standard								
Mercury		0.00252	mg/L	0.00010	101	95	105			10/08/25 10:27
Lab ID: CCV		Continuing Calibration Verification Standard								
Mercury		0.00253	mg/L	0.00010	101	90	110			10/08/25 11:08
Method: E245.1										
Batch: 203911										
Lab ID: MB-203911		Method Blank								
Mercury		ND	mg/L	0.00005						Run: HGCV205-B_251008A 10/08/25 11:05
Lab ID: LCS-203911		Laboratory Control Sample								
Mercury		0.00198	mg/L	0.00010	99	85	115			Run: HGCV205-B_251008A 10/08/25 11:06
Lab ID: B25100103-001CMS		Sample Matrix Spike								
Mercury		0.00194	mg/L	0.00010	97	70	130			Run: HGCV205-B_251008A 10/08/25 11:12
Lab ID: B25100103-001CMSD		Sample Matrix Spike Duplicate								
Mercury		0.00196	mg/L	0.00010	98	70	130	1.0	30	Run: HGCV205-B_251008A 10/08/25 11:13

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/20/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: Kelada-01										Analytical Run: SFA-202-B_251006A
Lab ID: ICV	Initial Calibration Verification Standard									
Cyanide, Weak Acid Dissociable		0.00994	mg/L	0.0010	99	90	110			10/06/25 11:40
Method: Kelada-01										Batch: R451509
Lab ID: ICB	Method Blank									
Cyanide, Weak Acid Dissociable		ND	mg/L	0.0009						Run: SFA-202-B_251006A 10/06/25 11:42
Lab ID: LFB	Laboratory Fortified Blank									
Cyanide, Weak Acid Dissociable		0.00992	mg/L	0.0010	99	90	110			Run: SFA-202-B_251006A 10/06/25 11:44
Lab ID: LCS1-ZnCN	Laboratory Control Sample									
Cyanide, Weak Acid Dissociable		0.0100	mg/L	0.0010	100	90	110			Run: SFA-202-B_251006A 10/06/25 11:46
Lab ID: LCS2-K3Fe(CN)6	Laboratory Control Sample									
Cyanide, Weak Acid Dissociable		ND	mg/L	0.0010	0	0	5			Run: SFA-202-B_251006A 10/06/25 11:48
Lab ID: LCS3-K4Fe(CN)6	Laboratory Control Sample									
Cyanide, Weak Acid Dissociable		ND	mg/L	0.0010	0	0	5			Run: SFA-202-B_251006A 10/06/25 11:50
Lab ID: B25100172-001EMS	Sample Matrix Spike									
Cyanide, Weak Acid Dissociable		0.0100	mg/L	0.0010	100	80	120			Run: SFA-202-B_251006A 10/06/25 12:04
Lab ID: B25100172-001EMSD	Sample Matrix Spike Duplicate									
Cyanide, Weak Acid Dissociable		0.0103	mg/L	0.0010	103	80	120	2.7	10	Run: SFA-202-B_251006A 10/06/25 12:08

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25100172

Report Date: 10/21/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0						Analytical Run: IC METROHM 2_251013A				
Lab ID: ICV	3	Initial Calibration Verification Standard							10/13/25 09:20	
Chloride		25.8	mg/L	1.0	103	90	110			
Sulfate		104	mg/L	1.0	104	90	110			
Fluoride		1.23	mg/L	0.10	98	90	110			
Lab ID: CCV	3	Continuing Calibration Verification Standard							10/15/25 10:11	
Chloride		25.9	mg/L	1.0	104	90	110			
Sulfate		105	mg/L	1.0	105	90	110			
Fluoride		1.16	mg/L	0.10	92	90	110			
Lab ID: CCV	3	Continuing Calibration Verification Standard							10/18/25 11:51	
Chloride		25.7	mg/L	1.0	103	90	110			
Sulfate		104	mg/L	1.0	104	90	110			
Fluoride		1.16	mg/L	0.10	93	90	110			
Method: E300.0						Batch: R452197				
Lab ID: ICB	3	Method Blank				Run: IC METROHM 2_251013A		10/13/25 09:37		
Chloride		ND	mg/L	0.09						
Sulfate		ND	mg/L	0.4						
Fluoride		ND	mg/L	0.005						
Lab ID: LFB	3	Laboratory Fortified Blank				Run: IC METROHM 2_251013A		10/13/25 09:54		
Chloride		27.1	mg/L	1.0	108	90	110			
Sulfate		104	mg/L	1.1	104	90	110			
Fluoride		1.33	mg/L	0.10	106	90	110			
Lab ID: B25100072-001BMS	3	Sample Matrix Spike				Run: IC METROHM 2_251013A		10/15/25 11:19		
Chloride		4320	mg/L	13	110	90	110			
Sulfate		5420	mg/L	53	108	90	110			
Fluoride		64.5	mg/L	0.66	103	90	110			
Lab ID: B25100072-001BMSD	3	Sample Matrix Spike Duplicate				Run: IC METROHM 2_251013A		10/15/25 11:36		
Chloride		4380	mg/L	13	116	90	110	1.5	20	S
Sulfate		5700	mg/L	53	113	90	110	5.0	20	S
Fluoride		67.0	mg/L	0.66	107	90	110	3.9	20	
Lab ID: B25092351-001AMS	3	Sample Matrix Spike				Run: IC METROHM 2_251013A		10/18/25 16:21		
Chloride		30.6	mg/L	1.0	110	90	110			
Sulfate		124	mg/L	1.1	109	90	110			
Fluoride		1.51	mg/L	0.10	103	90	110			
Lab ID: B25092351-001AMSD	3	Sample Matrix Spike Duplicate				Run: IC METROHM 2_251013A		10/18/25 16:38		
Chloride		29.9	mg/L	1.0	107	90	110	2.3	20	
Sulfate		124	mg/L	1.1	109	90	110	0.2	20	
Fluoride		1.48	mg/L	0.10	100	90	110	2.1	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

S - Spike recovery outside of advisory limits



Work Order Receipt Checklist

Linkan Engineering

B25100172

Login completed by: Crystal M. Jones

Date Received: 10/2/2025

Reviewed by: cindy

Received by: JAR

Reviewed Date: 10/11/2025

Carrier name: Return-FedEx NDA

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☒	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	6.0°C Blue Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The sample for potentially dissolved metals analysis was subsampled and filtered in the laboratory. According to the Code of Colorado Regulation these samples should be filtered within 8 to 96 hours of preservation with nitric acid to a



Work Order Receipt Checklist - Continued

Linkan Engineering

B25100172

pH < 2. CMJ 10/02/25

Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT  	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY 	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090



www.energylab.com

Page 1 of 1

Report Information (if different than Account Information)

Company/Name Linkan	
Contact	Alex Schwiebert
Phone	775-397-6779
Mailing Address	2720 Ruby Vista Dr
City, State, Zip	Elko, NV 89801
Email	see comments
Receive Report	☐ Hard Copy ☒ Email
Special Report/Forms:	
☐ LEVEL IV	☐ NELAC ☒ EDD/EDT (contact laboratory) ☐ Other

Comments

Outfall 001A - Bi-Weekly Sample

Please email Report and EDD results to:
 chris.prosper@linkan.com
 adam.billin@linkan.com
 alex.schwiebert@linkan.com
 peter.hays@state.co.us

Project Information

Project Name, PWSID, Permit, etc. Schwartzwalder Mine	
Sampler Name <i>Project Account</i>	Sampler Phone <i>7/238/6669</i>
Sample Origin <i>State Colorado</i>	EPA/State Compliance ☒ Yes ☐ No
MURANUM MINING CLIENTS MUST indicate sample type ☐ Unprocessed Ore ☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING ☐ 11(e)2 Byproduct Material (CAN ONLY be Submitted to ELI Casner Location)	

Matrix Codes

A - Air	W - Water
S - Soils/ Solids	V - Vegetation
B - Bioassay	O - Oil
DW - Drinking Water	

Analysis Requested

Solvent Chromium		, Dissolved		Total Recoverable	Potentially Dissolved	le, WAD	Methylene Blue Metric	n 226, Dissolved
------------------	--	-------------	--	-------------------	--------------------------	---------	--------------------------	------------------

All turnaround times are standard unless marked as RUSH.

Energy Laboratories
MUST be contacted prior to
RUSH sample submittal for
charges and scheduling –
See Instructions Page

[illegible]

CELL is REQUIRED to provide preservative traceability. If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC

[illegible]

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly noted on your analytical report.



Trust our People. Trust our Data.
www.energylab.com

Billings, MT 406.252.6325 • Casper, WY 307.235.0515 • Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

BOTTLE ORDER 197843



***** This is a recurring bottle order. If you have received this in error please contact your laboratory *****

SHIPPED Linkan Engineering

To report an issue with this order, view Safety Data Sheets, or let us know how we are doing, scan here or go to energylab.com/contact-us



Contact: Chris Prosper
400 Corporate Circle, Suite H
Golden CO 80401
Phone: (719) 247-0564
Project: Schwartzwalder Mine

Order Created by: Yvonna E. Smith
Shipped From: Billings, MT
Ship Date: 9/26/2025
VIA: Ground
Quote Used: 17287

Bottle Size/Type	Bottles Per Samp	Method	Tests	Critical Hold Time	Preservative	Notes	Num of Samp
Outfall 001A Weekly COD (4 Sets)							
500 mL Plastic	1	E410.4 HACH 8000	Chemical Oxygen Demand Preparation for COD testing HACH 8000		 H2SO4		1
Outfall 001A 3 Times Weekly TSS (12 Sets)							
1 Liter Plastic Wide Mouth	1	A2540 D	Solids, Total Suspended			Fill to the neck of the container.	1
Outfall 001A Bi-Weekly (2 Sets)							
250 mL Plastic	1	A3500-Cr B E300.0	Chromium, Hexavalent Anions by Ion Chromatography	24.00 hrs			1
250 mL Plastic	1	E200.7_8	Metals by ICP/ICPMS, Dissolved		 HNO3	Filter before preservation	1
250 mL Plastic	1	E200.7_8 Calculation E245.1 E200.2 E245.1	Metals by ICP/ICPMS, Total Recoverable Chromium, Total Recoverable Trivalent Mercury, Total Metals Digestion by E200.2 Mercury Digestion by E245.1		 HNO3		1

BO#: 197843

1 of 3

250 mL Plastic	1	E200.7_8	Metals by ICP/ICPMS, Potentially Dissolved		HNO3	1
		MCAWW	Preparation, Potentially Dissolved Filtration			
500 mL Amber Plastic	1	Kelada-01	Cyanide, Weak Acid Dissociable		NaOH	1
250 mL Plastic	1	A4500-S D	Sulfide, Methylene Blue Colorimetric		ZnAc	1
					NaOH	
1 Gallon Plastic	1	E903.0	Radium 226, Dissolved		HNO3	1
1 Gallon Plastic	1	A7500-RA	Radium 226 + Radium 228		HNO3	1
		E903.0	Radium 226, Total			
		RA-05	Radium 228, Total			

Table 1.1 (2 Sets)

120 mL Plastic	1	E365.1	Low Level Phosphorus, Orthophosphate as P			Filter Sample	1
1 Liter Plastic	1	E300.0	Anions by Ion Chromatography				1
		A2540 C	Solids, Total Dissolved				
1 Liter Plastic Wide Mouth	1	A2540 D	Solids, Total Suspended			Fill to the neck of the container.	1
250 mL Plastic	1	E200.7_8	Metals by ICP/ICPMS, Dissolved		HNO3	Filter before preservation	1
250 mL Plastic	1	E200.7_8	Metals by ICP/ICPMS, Total		HNO3		1
		E200.2	Metals Digestion by E200.2				
250 mL Plastic	1	E353.2	Nitrogen, Nitrate + Nitrite		H2SO4		1
		E365.1	E365.1 Digestion, Total P				
		E365.1	Low level Phosphorus, Total				
500 mL Amber Plastic	1	Kelada-01	Cyanide, Weak Acid Dissociable		NaOH		1
500 mL Plastic	1	E900.0	Gross Alpha, Gross Beta, Total		HNO3		1
1 Gallon Plastic	1	A7500-RA	Radium 226 + Radium 228		HNO3	This now only requires one (1) 15mL nitric acid vial for preservation.	1
		E903.0	Radium 226, Total				
		RA-05	Radium 228, Total				

Comments



BO#: 197843

2 of 3

HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid	NaOH - Sodium Hydroxide	We strongly suggest that the samples are shipped the same day as they are collected.
☒ ZnAc - Zinc Acetate	☒ HCl - Hydrochloric Acid	☐ H3PO4 - Phosphoric Acid	
Material Safety Data Sheets(MSDS) Available @ EnergyLab.com ->Services -> MSDS Sheets			
Corrosive Chemicals: Nitric, Sulfuric, Phosphoric, Hydrochloric Acids and Sodium Hydroxide. Zinc Acetate is a skin irritant.			
Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.			