



ANALYTICAL SUMMARY REPORT

October 26, 2023

Highbury Resources
PO Box 700
Nucla, CO 81424-0700

Work Order: C23090954 Quote ID: C5556

Project Name: JD-9 MW

Energy Laboratories, Inc. Casper WY received the following 1 sample for Highbury Resources on 9/27/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C23090954-001	N6065	09/25/23 9:30	09/27/23	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity to pH 4.5 Anion - Cation Balance Mercury, Dissolved Fluoride Anions by Ion Chromatography Nitrogen, Nitrite Nitrogen, Nitrate + Nitrite pH Digestion, Mercury by CVAA Gross Alpha, Gross Beta, Dissolved Radium 226 + Radium 228, Dissolved Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved - Calculated

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, 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.

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

Report Approved By:



CLIENT: Highbury Resources
Project: JD-9 MW
Work Order: C23090954

Report Date: 10/26/23

CASE NARRATIVE

Tests associated with analyst identified as ELI-H were subcontracted to Energy Laboratories, 3161 E.Lyndale Ave., Helena, MT, EPA Number MT00945.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Highbury Resources
Project: JD-9 MW
Lab ID: C23090954-001
Client Sample ID: N6065

Report Date: 10/26/23
Collection Date: 09/25/23 09:30
Date Received: 09/27/23
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	324	mg/L		5		A2320 B	09/29/23 15:53 / slf
Chloride	104	mg/L		1		E300.0	10/01/23 17:23 / dmb
Fluoride	0.7	mg/L		0.1		A4500-F C	10/02/23 12:25 / dmb
Sulfate	937	mg/L		4		E300.0	10/01/23 17:23 / dmb
Calcium	157	mg/L		1		E200.7	10/02/23 17:44 / eli-h
Magnesium	102	mg/L		1		E200.7	10/02/23 17:44 / eli-h
Potassium	30	mg/L		1		E200.7	10/02/23 17:44 / eli-h
Sodium	320	mg/L		1		E200.7	10/02/23 17:44 / eli-h
PHYSICAL PROPERTIES							
pH	7.4	s.u.	H	0.1		A4500-H B	09/28/23 11:11 / jls1
pH Measurement Temp	11.6	°C				A4500-H B	09/28/23 11:11 / jls1
NUTRIENTS							
Nitrogen, Nitrite as N	ND	mg/L	H	0.01		A4500-NO ₂ B	09/27/23 16:58 / slf
Nitrogen, Nitrate+Nitrite as N	31.5	mg/L		0.2		E353.2	09/28/23 13:03 / slf
- Analysis performed past hold time due to client request.							
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.03		E200.8	10/05/23 14:00 / eli-h
Antimony	ND	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Arsenic	ND	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Barium	ND	mg/L		0.05		E200.8	10/05/23 14:00 / eli-h
Beryllium	ND	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Boron	0.24	mg/L		0.05		E200.7	10/02/23 17:44 / eli-h
Cadmium	ND	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Chromium	ND	mg/L		0.005		E200.8	10/05/23 14:00 / eli-h
Cobalt	ND	mg/L		0.005		E200.8	10/05/23 14:00 / eli-h
Copper	ND	mg/L		0.005		E200.8	10/05/23 14:00 / eli-h
Iron	ND	mg/L		0.02		E200.8	10/05/23 14:00 / eli-h
Lead	ND	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Lithium	0.322	mg/L		0.004		E200.7	10/02/23 17:44 / eli-h
Manganese	0.007	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Mercury	ND	mg/L		0.0001		E245.1	10/04/23 10:12 / eli-h
Molybdenum	0.045	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Nickel	ND	mg/L		0.005		E200.8	10/05/23 14:00 / eli-h
Selenium	0.380	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Silica	8.8	mg/L		0.2		E200.7	10/02/23 17:44 / eli-h
Silver	ND	mg/L		0.001		E200.8	10/05/23 14:00 / eli-h
Strontium	5.51	mg/L		0.01		E200.7	10/02/23 17:44 / eli-h
Uranium	0.240	mg/L		0.0003		E200.8	10/05/23 14:00 / eli-h
Vanadium	ND	mg/L		0.01		E200.8	10/05/23 14:00 / eli-h
Zinc	0.02	mg/L		0.01		E200.8	10/05/23 14:00 / eli-h

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
H - Analysis performed past the method holding time

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



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Highbury Resources
Project: JD-9 MW
Lab ID: C23090954-001
Client Sample ID: N6065

Report Date: 10/26/23
Collection Date: 09/25/23 09:30
Date Received: 09/27/23
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance	-0.49	%				A1030 E	10/24/23 08:46 / dmb
Anions	31.2	meq/L				A1030 E	10/24/23 08:46 / dmb
Cations	30.9	meq/L				A1030 E	10/24/23 08:46 / dmb
RADIONUCLIDES, DISSOLVED							
Gross Alpha	242	pCi/L				E900.0	10/03/23 03:33 / haw
Gross Alpha precision (±)	48.9	pCi/L				E900.0	10/03/23 03:33 / haw
Gross Alpha MDC	7.7	pCi/L				E900.0	10/03/23 03:33 / haw
Gross Beta	43.4	pCi/L				E900.0	10/03/23 03:33 / haw
Gross Beta precision (±)	6.4	pCi/L				E900.0	10/03/23 03:33 / haw
Gross Beta MDC	9.2	pCi/L				E900.0	10/03/23 03:33 / haw
Radium 226	7.9	pCi/L				E903.0	10/17/23 16:33 / kdk
Radium 226 precision (±)	1.5	pCi/L				E903.0	10/17/23 16:33 / kdk
Radium 226 MDC	0.2	pCi/L				E903.0	10/17/23 16:33 / kdk
Radium 228	1.5	pCi/L				RA-05	10/10/23 16:47 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	10/10/23 16:47 / trs
Radium 228 MDC	1	pCi/L				RA-05	10/10/23 16:47 / trs
Radium 226 + Radium 228	9.4	pCi/L				A7500-RA	10/19/23 15:24 / dmf
Radium 226 + Radium 228 precision (±)	1.7	pCi/L				A7500-RA	10/19/23 15:24 / dmf
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	10/19/23 15:24 / dmf

Report RL - Analyte Reporting Limit
Definitions: 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

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/24/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										
Analytical Run: MANTECH_230929A										
Lab ID: ICV	Initial Calibration Verification Standard									
pH		8.01	s.u.	0.010	100	98	102			09/29/23 13:34
Lab ID: CCV										
Continuing Calibration Verification Standard										
pH		7.05	s.u.	0.010	101	98	102			09/29/23 16:59
Method: A2320 B										
Batch: R299345										
Lab ID: MBLK	Method Blank									
Alkalinity, Total as CaCO ₃		ND	mg/L	2						Run: MANTECH_230929A 09/29/23 13:45
Lab ID: LCS										
Laboratory Control Sample										
Alkalinity, Total as CaCO ₃		246	mg/L	5.0	98	90	110			Run: MANTECH_230929A 09/29/23 13:53
Lab ID: C23090952-001ADUP										
Sample Duplicate										
Alkalinity, Total as CaCO ₃		116	mg/L	5.0				1.3	10	Run: MANTECH_230929A 09/29/23 15:36

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/24/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										
Analytical Run: MANTECH_231002A										
Lab ID: CCV	Continuing Calibration Verification Standard									
Fluoride		1.98	mg/L	0.10	99	90	110			10/02/23 12:44
Method: A4500-F C										
Batch: R299406										
Lab ID: LCS	Laboratory Control Sample									
Fluoride		2.04	mg/L	0.10	102	90	110			Run: MANTECH_231002A 10/02/23 11:28
Lab ID: MBLK	Method Blank									
Fluoride		ND	mg/L	0.06						Run: MANTECH_231002A 10/02/23 11:42
Lab ID: C23090871-001ADUP	Sample Duplicate									
Fluoride		1.09	mg/L	0.10				0.0		Run: MANTECH_231002A 10/02/23 12:10
Lab ID: C23090871-002AMS	Sample Matrix Spike									
Fluoride		3.15	mg/L	0.10	110	90	110			Run: MANTECH_231002A 10/02/23 12:15

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/24/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: PHSC_101-C_230928A		
Lab ID: 8.0	2	Initial Calibration Verification Standard							09/28/23 10:20	
pH		8.0	s.u.	0.1	100	98	102			
pH Measurement Temp		19.8	°C			0	0			
Lab ID: CCV - pH 7								09/28/23 12:04		
	2	Continuing Calibration Verification Standard								
pH		7.0	s.u.	0.1	100	98	102			
pH Measurement Temp		19.3	°C			0	0			
Method: A4500-H B										
								Batch: R299255		
Lab ID: C23090952-001ADUP	2	Sample Duplicate				Run: PHSC_101-C_230928A				09/28/23 11:05
pH		8.4	s.u.	0.1				0.1	3	H
pH Measurement Temp		15.9	°C							

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

H - Analysis performed past the method holding time



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/24/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NO2 B								Analytical Run: SPECC-101_230927B		
Lab ID: CCV	Continuing Calibration Verification Standard									09/27/23 16:58
Nitrogen, Nitrite as N		0.0533	mg/L	0.010	107	90	110			
Method: A4500-NO2 B								Batch: R299245		
Lab ID: MBLK	Method Blank									09/27/23 16:58
Nitrogen, Nitrite as N		ND	mg/L	0.003				Run: SPECC-101_230927B		
Lab ID: LCS	Laboratory Control Sample									09/27/23 16:58
Nitrogen, Nitrite as N		0.0530	mg/L	0.011	101	90	110	Run: SPECC-101_230927B		
Lab ID: C23090949-001BMS	Sample Matrix Spike									09/27/23 16:58
Nitrogen, Nitrite as N		0.0528	mg/L	0.011	100	90	110	Run: SPECC-101_230927B		
Lab ID: C23090949-001BMSD	Sample Matrix Spike Duplicate									09/27/23 16:58
Nitrogen, Nitrite as N		0.0544	mg/L	0.011	103	90	110	3.0	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/24/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Analytical Run: IC3-C_231001A
Lab ID: ICV	2	Initial Calibration Verification Standard								10/01/23 09:08
Chloride		10.1	mg/L	1.0	101	90	110			
Sulfate		41.5	mg/L	1.0	104	90	110			
Lab ID: CCV	2	Continuing Calibration Verification Standard								10/01/23 14:08
Chloride		20.9	mg/L	1.0	104	90	110			
Sulfate		84.5	mg/L	1.0	106	90	110			
Method: E300.0										Batch: R299362
Lab ID: ICB	2	Method Blank								Run: IC3-C_231001A 10/01/23 09:26
Chloride		ND	mg/L	0.03						
Sulfate		ND	mg/L	0.2						
Lab ID: LFB	2	Laboratory Fortified Blank								Run: IC3-C_231001A 10/01/23 09:43
Chloride		9.45	mg/L	1.0	98	90	110			
Sulfate		40.5	mg/L	1.0	105	90	110			
Lab ID: C23090869-005AMS	2	Sample Matrix Spike								Run: IC3-C_231001A 10/01/23 14:43
Chloride		246	mg/L	2.1	98	80	120			
Sulfate		2760	mg/L	8.3	101	80	120			
Lab ID: C23090869-005AMSD	2	Sample Matrix Spike Duplicate								Run: IC3-C_231001A 10/01/23 15:01
Chloride		245	mg/L	2.1	98	80	120	0.4	20	
Sulfate		2720	mg/L	8.3	96	80	120	1.3	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/24/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Analytical Run: FIA201-C_230928B
Lab ID: ICV										09/28/23 11:55
Initial Calibration Verification Standard										
Nitrogen, Nitrate+Nitrite as N		0.986	mg/L	0.050	99	90	110			
Lab ID: CCV										09/28/23 12:48
Continuing Calibration Verification Standard										
Nitrogen, Nitrate+Nitrite as N		0.994	mg/L	0.050	99	90	110			
Method: E353.2										Batch: R299270
Lab ID: MBLK										09/28/23 11:56
Method Blank							Run: FIA201-C_230928B			
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.02						
Lab ID: LFB										09/28/23 11:58
Laboratory Fortified Blank							Run: FIA201-C_230928B			
Nitrogen, Nitrate+Nitrite as N		0.992	mg/L	0.050	100	90	110			
Lab ID: C23090942-006CMS										09/28/23 12:51
Sample Matrix Spike							Run: FIA201-C_230928B			
Nitrogen, Nitrate+Nitrite as N		1.01	mg/L	0.050	101	90	110			
Lab ID: C23090942-006CMSD										09/28/23 12:53
Sample Matrix Spike Duplicate							Run: FIA201-C_230928B			
Nitrogen, Nitrate+Nitrite as N		1.02	mg/L	0.050	102	90	110	1.4	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7		Analytical Run: ICP2-HE_231002B								
Lab ID: ICV	8	Initial Calibration Verification Standard							10/02/23 10:41	
Boron		0.799	mg/L	0.10	100	95	105			
Calcium		39.5	mg/L	1.0	99	95	105			
Lithium		0.820	mg/L	0.10	103	95	105			
Magnesium		40.2	mg/L	1.0	100	95	105			
Potassium		40.2	mg/L	1.0	101	95	105			
Silicon		8.35	mg/L	1.0	104	95	105			
Sodium		40.3	mg/L	1.0	101	95	105			
Strontium		0.813	mg/L	0.10	102	95	105			
Lab ID: CCV-1	8	Continuing Calibration Verification Standard							10/02/23 10:44	
Boron		2.46	mg/L	0.10	98	95	105			
Calcium		24.5	mg/L	1.0	98	95	105			
Lithium		1.28	mg/L	0.10	102	95	105			
Magnesium		25.2	mg/L	1.0	101	95	105			
Potassium		25.3	mg/L	1.0	101	95	105			
Silicon		5.10	mg/L	1.0	102	95	105			
Sodium		25.2	mg/L	1.0	101	95	105			
Strontium		2.54	mg/L	0.10	102	95	105			
Lab ID: CCV	8	Continuing Calibration Verification Standard							10/02/23 17:17	
Boron		2.51	mg/L	0.10	100	90	110			
Calcium		25.3	mg/L	1.0	101	90	110			
Lithium		1.37	mg/L	0.10	110	90	110			
Magnesium		26.4	mg/L	1.0	106	90	110			
Potassium		26.9	mg/L	1.0	108	90	110			
Silicon		4.96	mg/L	1.0	99	90	110			
Sodium		27.1	mg/L	1.0	109	90	110			
Strontium		2.55	mg/L	0.10	102	90	110			
Method: E200.7		Batch: R188723								
Lab ID: MB	8	Method Blank							Run: ICP2-HE_231002B 10/02/23 11:07	
Boron		ND	mg/L	0.004						
Calcium		ND	mg/L	0.2						
Lithium		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.05						
Potassium		ND	mg/L	0.06						
Silicon		ND	mg/L	0.02						
Sodium		0.06	mg/L	0.03						
Strontium		ND	mg/L	0.0003						
Lab ID: LFB	8	Laboratory Fortified Blank							Run: ICP2-HE_231002B 10/02/23 11:11	
Boron		0.986	mg/L	0.10	99	85	115			
Calcium		45.9	mg/L	1.0	92	85	115			
Lithium		1.15	mg/L	0.10	115	85	115			
Magnesium		50.8	mg/L	1.0	102	85	115			
Potassium		53.7	mg/L	1.0	107	85	115			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R188723
Lab ID: LFB	8	Laboratory Fortified Blank			Run: ICP2-HE_231002B			10/02/23 11:11		
Silicon		10.2	mg/L	1.0	102	85	115			
Sodium		55.2	mg/L	1.0	110	85	115			
Strontium		1.01	mg/L	0.10	101	85	115			
Lab ID: H23090934-001BMS2	9	Sample Matrix Spike			Run: ICP2-HE_231002B			10/02/23 17:30		
Boron		0.901	mg/L	0.050	88	70	130			
Calcium		76.4	mg/L	1.0	98	70	130			
Lithium		1.07	mg/L	0.10	105	70	130			
Magnesium		54.5	mg/L	1.0	99	70	130			
Potassium		51.4	mg/L	1.0	100	70	130			
Silicon		14.6	mg/L	0.10	107	70	130			
Sodium		78.3	mg/L	1.0	100	70	130			
Strontium		1.27	mg/L	0.010	96	70	130			
Silica		31.3	mg/L	0.21	107	70	130			
Lab ID: H23090934-001BMDS2	9	Sample Matrix Spike Duplicate			Run: ICP2-HE_231002B			10/02/23 17:33		
Boron		0.937	mg/L	0.050	91	70	130	3.9	20	
Calcium		77.5	mg/L	1.0	100	70	130	1.5	20	
Lithium		1.11	mg/L	0.10	109	70	130	3.7	20	
Magnesium		55.3	mg/L	1.0	100	70	130	1.5	20	
Potassium		53.9	mg/L	1.0	105	70	130	4.8	20	
Silicon		14.1	mg/L	0.10	102	70	130	3.9	20	
Sodium		80.2	mg/L	1.0	104	70	130	2.4	20	
Strontium		1.29	mg/L	0.010	97	70	130	1.1	20	
Silica		30.1	mg/L	0.21	102	70	130	3.9	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
---------	-------	--------	-------	----	------	-----------	------------	-----	----------	------

Method: E200.8

Analytical Run: ICPMS206-H_231005A

Lab ID: ICV 19 Initial Calibration Verification Standard 10/05/23 12:46

Aluminum	0.289	mg/L	0.10	96	90	110
Antimony	0.0577	mg/L	0.050	96	90	110
Arsenic	0.0586	mg/L	0.0050	98	90	110
Barium	0.0592	mg/L	0.10	99	90	110
Beryllium	0.0282	mg/L	0.0010	94	90	110
Cadmium	0.0298	mg/L	0.0010	99	90	110
Chromium	0.0586	mg/L	0.010	98	90	110
Cobalt	0.0588	mg/L	0.010	98	90	110
Copper	0.0591	mg/L	0.010	98	90	110
Iron	0.300	mg/L	0.020	100	90	110
Lead	0.0588	mg/L	0.010	98	90	110
Manganese	0.293	mg/L	0.010	98	90	110
Molybdenum	0.0574	mg/L	0.0050	96	90	110
Nickel	0.0593	mg/L	0.010	99	90	110
Selenium	0.0606	mg/L	0.0050	101	90	110
Silver	0.0297	mg/L	0.0050	99	90	110
Uranium	0.0578	mg/L	0.00030	96	90	110
Vanadium	0.0578	mg/L	0.10	96	90	110
Zinc	0.0619	mg/L	0.010	103	90	110

Lab ID: CCV 19 Continuing Calibration Verification Standard 10/05/23 13:16

Aluminum	0.0510	mg/L	0.10	102	90	110
Antimony	0.0512	mg/L	0.050	102	90	110
Arsenic	0.0512	mg/L	0.0050	102	90	110
Barium	0.0512	mg/L	0.10	102	90	110
Beryllium	0.0468	mg/L	0.0010	94	90	110
Cadmium	0.0513	mg/L	0.0010	103	90	110
Chromium	0.0505	mg/L	0.010	101	90	110
Cobalt	0.0506	mg/L	0.010	101	90	110
Copper	0.0507	mg/L	0.010	101	90	110
Iron	1.37	mg/L	0.020	105	90	110
Lead	0.0508	mg/L	0.010	101	90	110
Manganese	0.0506	mg/L	0.010	101	90	110
Molybdenum	0.0505	mg/L	0.0050	101	90	110
Nickel	0.0515	mg/L	0.010	103	90	110
Selenium	0.0521	mg/L	0.0050	104	90	110
Silver	0.0204	mg/L	0.0050	102	90	110
Uranium	0.0499	mg/L	0.00030	100	90	110
Vanadium	0.0496	mg/L	0.10	99	90	110
Zinc	0.0519	mg/L	0.010	104	90	110

Method: E200.8

Batch: R188851

Lab ID: LRB 19 Method Blank Run: ICPMS206-H_231005A 10/05/23 13:23

Aluminum	ND	mg/L	0.002
Antimony	ND	mg/L	0.00002

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R188851
Lab ID: LRB	19	Method Blank				Run: ICPMS206-H_231005A				10/05/23 13:23
Arsenic		ND	mg/L	0.00001						
Barium		ND	mg/L	0.0003						
Beryllium	0.00003		mg/L	0.00003						
Cadmium		ND	mg/L	7E-06						
Chromium		ND	mg/L	0.00001						
Cobalt		ND	mg/L	0.00001						
Copper		ND	mg/L	0.00004						
Iron		ND	mg/L	0.0007						
Lead		ND	mg/L	0.00002						
Manganese		ND	mg/L	0.00005						
Molybdenum	0.00001		mg/L	7E-06						
Nickel	0.0005		mg/L	0.00003						
Selenium		ND	mg/L	0.00002						
Silver		ND	mg/L	3E-06						
Uranium		ND	mg/L	3E-06						
Vanadium		ND	mg/L	0.00001						
Zinc		ND	mg/L	0.0007						
Lab ID: LFB	19	Laboratory Fortified Blank				Run: ICPMS206-H_231005A				10/05/23 13:27
Aluminum		0.0467	mg/L	0.10	93	85	115			
Antimony		0.0490	mg/L	0.050	98	85	115			
Arsenic		0.0492	mg/L	0.0050	98	85	115			
Barium		0.0492	mg/L	0.10	98	85	115			
Beryllium		0.0460	mg/L	0.0010	92	85	115			
Cadmium		0.0499	mg/L	0.0010	100	85	115			
Chromium		0.0486	mg/L	0.010	97	85	115			
Cobalt		0.0494	mg/L	0.010	99	85	115			
Copper		0.0492	mg/L	0.010	98	85	115			
Iron		0.150	mg/L	0.020	100	85	115			
Lead		0.0479	mg/L	0.010	96	85	115			
Manganese		0.0490	mg/L	0.010	98	85	115			
Molybdenum		0.0491	mg/L	0.0050	98	85	115			
Nickel		0.0502	mg/L	0.010	100	85	115			
Selenium		0.0502	mg/L	0.0050	100	85	115			
Silver		0.0200	mg/L	0.0050	100	85	115			
Uranium		0.0465	mg/L	0.00030	93	85	115			
Vanadium		0.0480	mg/L	0.10	96	85	115			
Zinc		0.0501	mg/L	0.010	100	85	115			
Lab ID: H23100017-001AMS	18	Sample Matrix Spike				Run: ICPMS206-H_231005A				10/05/23 16:50
Aluminum		0.0500	mg/L	0.030	100	70	130			
Antimony		0.0504	mg/L	0.0010	100	70	130			
Arsenic		0.0508	mg/L	0.0010	101	70	130			
Barium		0.0959	mg/L	0.050	100	70	130			
Beryllium		0.0511	mg/L	0.0010	102	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R188851
Lab ID: H23100017-001AMS	18	Sample Matrix Spike		Run: ICPMS206-H_231005A				10/05/23 16:50		
Cadmium		0.0506	mg/L	0.0010	101	70	130			
Chromium		0.0503	mg/L	0.0050	100	70	130			
Cobalt		0.0503	mg/L	0.0050	100	70	130			
Copper		0.0519	mg/L	0.0050	99	70	130			
Iron		0.159	mg/L	0.020	102	70	130			
Lead		0.0484	mg/L	0.0010	97	70	130			
Manganese		0.0509	mg/L	0.0010	101	70	130			
Molybdenum		0.0556	mg/L	0.0010	100	70	130			
Nickel		0.0493	mg/L	0.0050	99	70	130			
Selenium		0.0540	mg/L	0.0010	105	70	130			
Uranium		0.0539	mg/L	0.00030	92	70	130			
Vanadium		0.0512	mg/L	0.010	100	70	130			
Zinc		0.0560	mg/L	0.010	101	70	130			
Lab ID: H23100017-001AMSD	18	Sample Matrix Spike Duplicate		Run: ICPMS206-H_231005A				10/05/23 17:03		
Aluminum		0.0518	mg/L	0.030	104	70	130	3.4	20	
Antimony		0.0521	mg/L	0.0010	104	70	130	3.4	20	
Arsenic		0.0512	mg/L	0.0010	102	70	130	0.6	20	
Barium		0.0988	mg/L	0.050	106	70	130	3.0	20	
Beryllium		0.0503	mg/L	0.0010	101	70	130	1.5	20	
Cadmium		0.0519	mg/L	0.0010	104	70	130	2.4	20	
Chromium		0.0508	mg/L	0.0050	101	70	130	1.1	20	
Cobalt		0.0507	mg/L	0.0050	100	70	130	0.8	20	
Copper		0.0524	mg/L	0.0050	100	70	130	1.0	20	
Iron		0.160	mg/L	0.020	103	70	130	0.9	20	
Lead		0.0488	mg/L	0.0010	97	70	130	0.9	20	
Manganese		0.0514	mg/L	0.0010	101	70	130	0.9	20	
Molybdenum		0.0574	mg/L	0.0010	104	70	130	3.1	20	
Nickel		0.0496	mg/L	0.0050	99	70	130	0.7	20	
Selenium		0.0546	mg/L	0.0010	106	70	130	1.1	20	
Uranium		0.0549	mg/L	0.00030	94	70	130	1.7	20	
Vanadium		0.0519	mg/L	0.010	102	70	130	1.2	20	
Zinc		0.0563	mg/L	0.010	102	70	130	0.5	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1										
Analytical Run: HGCV205-H_231004A										
Lab ID: ICV	Initial Calibration Verification Standard									
Mercury		0.00104	mg/L	0.00010	103	90	110			10/04/23 09:35
Lab ID: CCV1	Continuing Calibration Verification Standard									
Mercury		0.00252	mg/L	0.00010	101	95	105			10/04/23 09:37
Lab ID: CCV	Continuing Calibration Verification Standard									
Mercury		0.00255	mg/L	0.00010	102	90	110			10/04/23 10:09
Method: E245.1										
Batch: 68616										
Lab ID: MB-68616	Method Blank									
Mercury		ND	mg/L	0.00005						Run: HGCV205-H_231004A 10/04/23 09:43
Lab ID: LCS-68616	Laboratory Control Sample									
Mercury		0.000495	mg/L	0.00010	99	85	115			Run: HGCV205-H_231004A 10/04/23 09:44
Lab ID: C23090954-001BMS	Sample Matrix Spike									
Mercury		0.000488	mg/L	0.00010	97	70	130			Run: HGCV205-H_231004A 10/04/23 10:14
Lab ID: C23090954-001BMSD	Sample Matrix Spike Duplicate									
Mercury		0.000498	mg/L	0.00010	100	70	130	2.1	20	Run: HGCV205-H_231004A 10/04/23 10:16

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-3230R
Lab ID: Th230-GrAB-3230	3	Laboratory Control Sample				Run: TENNELEC-3_230928A				10/03/23 03:33
Gross Alpha		100	pCi/L	104		70	130			
Gross Alpha precision (±)		21	pCi/L							
Gross Alpha MDC		1.5	pCi/L							
Lab ID: Sr90-GrAB-3230	3	Laboratory Control Sample				Run: TENNELEC-3_230928A				10/03/23 03:33
Gross Beta		440	pCi/L	92		70	130			
Gross Beta precision (±)		45	pCi/L							
Gross Beta MDC		2.7	pCi/L							
Lab ID: MB-GrAB-3230	6	Method Blank				Run: TENNELEC-3_230928A				10/03/23 03:33
Gross Alpha		-0.05	pCi/L							U
Gross Alpha precision (±)		0.9	pCi/L							
Gross Alpha MDC		2	pCi/L							
Gross Beta		4	pCi/L							
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Lab ID: C23090954-001DMS1	3	Sample Matrix Spike				Run: TENNELEC-3_230928A				10/03/23 03:33
Gross Beta		1300	pCi/L	89		70	130			
Gross Beta precision (±)		130	pCi/L							
Gross Beta MDC		10	pCi/L							
Lab ID: C23090954-001DMSD1	3	Sample Matrix Spike Duplicate				Run: TENNELEC-3_230928A				10/03/23 03:33
Gross Beta		1200	pCi/L	84		70	130	6.3		30
Gross Beta precision (±)		130	pCi/L							
Gross Beta MDC		8.7	pCi/L							
- The RER result is 0.43.										
Lab ID: C23090967-003DMS	3	Sample Matrix Spike				Run: TENNELEC-3_230928A				10/04/23 01:21
Gross Alpha		140	pCi/L	81		70	130			
Gross Alpha precision (±)		29	pCi/L							
Gross Alpha MDC		5.4	pCi/L							
Lab ID: C23090967-003DMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-3_230928A				10/04/23 01:21
Gross Alpha		160	pCi/L	89		70	130	7.9		30
Gross Alpha precision (±)		31	pCi/L							
Gross Alpha MDC		4.4	pCi/L							
- The RER result is 0.28.										

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

U - Not detected at Minimum Detectable Concentration (MDC)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11070
Lab ID: LCS-RA226-11070	3	Laboratory Control Sample				Run: G542M-2_230928C				10/17/23 14:10
Radium 226		10	pCi/L	103		70	130			
Radium 226 precision (±)		2.0	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: MB-RA226-11070	3	Method Blank				Run: G542M-2_230928C				10/17/23 14:10
Radium 226		-0.02	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C23090967-001DDUP	3	Sample Duplicate				Run: G542M-2_230928C				10/17/23 16:34
Radium 226		0.80	pCi/L					1.8	30	
Radium 226 precision (±)		0.17	pCi/L							
Radium 226 MDC		0.19	pCi/L							
- The RER result is 0.06.										

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

U - Not detected at Minimum Detectable Concentration (MDC)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Highbury Resources

Work Order: C23090954

Report Date: 10/23/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7223
Lab ID: LCS-228-RA226-11070	3	Laboratory Control Sample				Run: TENNELEC-4_230928B				10/10/23 16:46
Radium 228		5.6	pCi/L	84		70	130			
Radium 228 precision (±)		1.3	pCi/L							
Radium 228 MDC		1.1	pCi/L							
Lab ID: MB-RA226-11070	3	Method Blank				Run: TENNELEC-4_230928B				10/10/23 16:46
Radium 228		-0.03	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C23090967-001DDUP	3	Sample Duplicate				Run: TENNELEC-4_230928B				10/10/23 16:47
Radium 228		0.91	pCi/L					18	30	U
Radium 228 precision (±)		0.64	pCi/L							
Radium 228 MDC		0.98	pCi/L							
- The RER result is 0.17.										

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

U - Not detected at Minimum Detectable Concentration (MDC)



Work Order Receipt Checklist

Highbury Resources

C23090954

Login completed by: Manford E. Hurley

Date Received: 9/27/2023

Reviewed by: cjohnson

Received by: dmf

Reviewed Date: 9/28/2023

Carrier name: UPS

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:	0.9°C On 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.

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.

Contact and Corrective Action Comments:

The sample was received past the 48 hour holding time for nitrite analysis. Continue with analysis, per Mallory Pottorff. 9/27/23 MEH



www.energylab.com

Page ____ of ____

Account Information (Billing Information)

Company/Name
Contact
Phone
Mailing Address
City, State, Zip
Email
Receive Report ☐ Hard Copy ☐ Email
Special Report/Formats:
☐ LEVEL IV ☐ NELAC ☐ EDD/EDT <i>(contact laboratory)</i> ☐ Other _____

Comments

Project Information
Project Name, PWSID, Permit, etc. ID-9 M-17

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

ELI 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.

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
LABORATORY USE ONLY						
Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp °C	Temp Blank Y N	On Ice Y N
				Payment Type CC Cash Check	Amount \$	Receipt Number (cash/check only)

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 notated on your analytical report.