



Inter-Mountain Labs
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page **1** of **1**

All shaded fields must be completed.
This is a legal document: any misrepresentation may be construed as fraud.

161846

Client Name Comaco Resources		Project Identification MU 1 Stability Monitoring		Sampler (Signature/Attestation of Authenticity) Kathy Amos		Telephone # 3073586541	
Report Address PO Box 1210 Glenrock WY 82637		Contact Name Larry Wilbanks		ANALYSES / PARAMETERS			
Invoice Address		Email Larry Wilbanks @ comaco.com					
		Phone 307 358 6541 x427		Purchase Order # 4560 513 220		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Calcium	pH	Sulfate	alkalinity	Filter	REMARKS
												SAMPLED
1	SL606193 - 002	6/7/16	759	B-003	WT	7	X	X				
2	003		1013	B-005			X	X				
3	004		1158	B-007			X	X				
4	005		422	B-012				X	X			
5	006		153	B-017			X	X		X		
6			936	B-019			X	X		X		
7												
8												
9												
10												
11												
12												
13												
14												

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
Temp = 7.4	Kathy Amos	6/8/16	230	Ken Garowite	6/8/16	1530
	Ken Garowite	6/8/16	1700	Ken Garowite	6-9-16	1147

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input checked="" type="checkbox"/> Hand Carried <input type="checkbox"/> Other _____	Water WT Soil SL Solid SD Filter FT Other OT	<input checked="" type="checkbox"/> Check desired service <input type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N Program (SDWA, NPDES,...) PWSID / Permit # _____ Chlorinated? <input type="checkbox"/> Y / <input checked="" type="checkbox"/> N Sample Disposal: Lab _____ Client _____	



Date: 6/23/2016

CLIENT: Power Resources (Cameco)
Project: MU1 Stability Monitoring
Lab Order: S1606193

CASE NARRATIVE
Report ID: S1606193001

Samples B-003, B-005, B-007, B-012, B-017, and B-019 were received on June 9, 2016.

All samples were received and analyzed within the EPA recommended holding times, except those noted below in this case narrative. Samples were analyzed using the methods outlined in the following references:

"Standard Methods For The Examination of Water and Wastewater", approved method versions
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition
40 CFR Parts 136 and 141
40 CFR Part 50, Appendices B, J, L, and O
Methods indicated in the Methods Update Rule published in the Federal Register Friday, May 18, 2012
ASTM approved and recognized standards

All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories except as indicated in this case narrative.

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Power Resources (Cameco)
PO Box 1210
Glenrock, WY 82637

Date Reported: 6/23/2016
Report ID: S1606193001

ProjectName: MU1 Stability Monitoring
Lab ID: S1606193-001
ClientSample ID: B-003
COC: 161846

WorkOrder: S1606193
CollectionDate: 6/7/2016 7:59:00 AM
DateReceived: 6/9/2016 11:47:00 AM
FieldSampler: KA
Matrix: Water

Comments

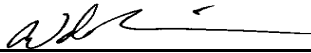
Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
Anions/Cations							
Calcium	60	mg/L		1	EPA 200.7	06/10/2016 1921	DG
General Parameters							
pH	7.5	s.u.		0.1	SM 4500 H B	06/10/2016 2236	IBS

These results apply only to the samples tested.

RL - Reporting Limit

- Qualifiers:**
- B Analyte detected in the associated Method Blank
 - E Value above quantitation range
 - J Analyte detected below quantitation limits
 - M Value exceeds Monthly Ave or MCL or is less than LCL
 - O Outside the Range of Dilutions
 - X Matrix Effect

- C Calculated Value
- H Holding times for preparation or analysis exceeded
- L Analyzed by another laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Power Resources (Cameco)
PO Box 1210
Glenrock, WY 82637

Date Reported: 6/23/2016
Report ID: S1606193001

ProjectName: MU1 Stability Monitoring
Lab ID: S1606193-002
ClientSample ID: B-005
COC: 161846

WorkOrder: S1606193
CollectionDate: 6/7/2016 10:13:00 AM
DateReceived: 6/9/2016 11:47:00 AM
FieldSampler: KA
Matrix: Water

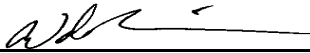
Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
Anions/Cations							
Calcium	46	mg/L		1	EPA 200.7	06/10/2016 1926	DG
General Parameters							
pH	7.7	s.u.		0.1	SM 4500 H B	06/10/2016 2241	IBS

These results apply only to the samples tested.

RL - Reporting Limit

- | | | | | |
|--------------------|---|--|----|--|
| Qualifiers: | B | Analyte detected in the associated Method Blank | C | Calculated Value |
| | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| | J | Analyte detected below quantitation limits | L | Analyzed by another laboratory |
| | M | Value exceeds Monthly Ave or MCL or is less than LCL | ND | Not Detected at the Reporting Limit |
| | O | Outside the Range of Dilutions | S | Spike Recovery outside accepted recovery limits |
| | X | Matrix Effect | | |

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Power Resources (Cameco)
PO Box 1210
Glenrock, WY 82637

Date Reported 6/23/2016
Report ID S1606193001

ProjectName: MU1 Stability Monitoring
Lab ID: S1606193-003
ClientSample ID: B-007
COC: 161846

WorkOrder: S1606193
CollectionDate: 6/7/2016 11:58:00 AM
DateReceived: 6/9/2016 11:47:00 AM
FieldSampler: KA
Matrix: Water

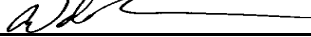
Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
Anions/Cations							
Calcium	55	mg/L		1	EPA 200.7	06/10/2016 1933	DG
General Parameters							
pH	7.8	s.u.		0.1	SM 4500 H B	06/10/2016 2246	IBS

These results apply only to the samples tested.

RL - Reporting Limit

- | | | | | |
|--------------------|---|--|----|--|
| Qualifiers: | B | Analyte detected in the associated Method Blank | C | Calculated Value |
| | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| | J | Analyte detected below quantitation limits | L | Analyzed by another laboratory |
| | M | Value exceeds Monthly Ave or MCL or is less than LCL | ND | Not Detected at the Reporting Limit |
| | O | Outside the Range of Dilutions | S | Spike Recovery outside accepted recovery limits |
| | X | Matrix Effect | | |

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Power Resources (Cameco)
PO Box 1210
Glenrock, WY 82637

Date Reported 6/23/2016
Report ID S1606193001

ProjectName: MU1 Stability Monitoring
Lab ID: S1606193-004
ClientSample ID: B-012
COC: 161846

WorkOrder: S1606193
CollectionDate: 6/7/2016 4:22:00 PM
DateReceived: 6/9/2016 11:47:00 AM
FieldSampler: KA
Matrix: Water

Comments

Table with 7 columns: Analyses, Result, Units, Qual, RL, Method, Date Analyzed/Init. Rows include Sulfate (111 mg/L) and pH (7.6 s.u.).

These results apply only to the samples tested.

RL - Reporting Limit

- Qualifiers: B Analyte detected in the associated Method Blank, C Calculated Value, E Value above quantitation range, H Holding times for preparation or analysis exceeded, J Analyte detected below quantitation limits, L Analyzed by another laboratory, M Value exceeds Monthly Ave or MCL or is less than LCL, ND Not Detected at the Reporting Limit, O Outside the Range of Dilutions, S Spike Recovery outside accepted recovery limits, X Matrix Effect

Reviewed by: [Signature]
Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Power Resources (Cameco)
PO Box 1210
Glenrock, WY 82637

Date Reported 6/23/2016
Report ID S1606193001

ProjectName: MU1 Stability Monitoring
Lab ID: S1606193-005
ClientSample ID: B-017
COC: 161846

WorkOrder: S1606193
CollectionDate: 6/7/2016 1:53:00 PM
DateReceived: 6/9/2016 11:47:00 AM
FieldSampler: KA
Matrix: Water

Comments

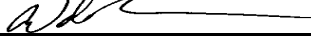
Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
Anions/Cations							
Alkalinity, Total (As CaCO3)	127	mg/L		5	SM 2320B	06/23/2016 1345	IBS
Calcium	55	mg/L		1	EPA 200.7	06/10/2016 1935	DG
General Parameters							
pH	7.8	s.u.		0.1	SM 4500 H B	06/10/2016 2255	IBS

These results apply only to the samples tested.

RL - Reporting Limit

- Qualifiers:**
- B Analyte detected in the associated Method Blank
 - E Value above quantitation range
 - J Analyte detected below quantitation limits
 - M Value exceeds Monthly Ave or MCL or is less than LCL
 - O Outside the Range of Dilutions
 - X Matrix Effect

- C Calculated Value
- H Holding times for preparation or analysis exceeded
- L Analyzed by another laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Power Resources (Cameco)
PO Box 1210
Glenrock, WY 82637

Date Reported 6/23/2016
Report ID S1606193001

ProjectName: MU1 Stability Monitoring
Lab ID: S1606193-006
ClientSample ID: B-019
COC: 161846

WorkOrder: S1606193
CollectionDate: 6/7/2016 9:36:00 AM
DateReceived: 6/9/2016 11:47:00 AM
FieldSampler: KA
Matrix: Water

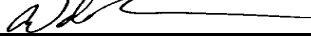
Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
Anions/Cations							
Alkalinity, Total (As CaCO3)	106	mg/L		5	SM 2320B	06/23/2016 1353	IBS
Calcium	37	mg/L		1	EPA 200.7	06/10/2016 1937	DG
General Parameters							
pH	7.8	s.u.		0.1	SM 4500 H B	06/10/2016 2305	IBS

These results apply only to the samples tested.

RL - Reporting Limit

- | | | | | |
|--------------------|---|--|----|--|
| Qualifiers: | B | Analyte detected in the associated Method Blank | C | Calculated Value |
| | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| | J | Analyte detected below quantitation limits | L | Analyzed by another laboratory |
| | M | Value exceeds Monthly Ave or MCL or is less than LCL | ND | Not Detected at the Reporting Limit |
| | O | Outside the Range of Dilutions | S | Spike Recovery outside accepted recovery limits |
| | X | Matrix Effect | | |

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager



ANALYTICAL QC SUMMARY REPORT

CLIENT: Power Resources (Cameco)
Work Order: S1606193
Project: MU1 Stability Monitoring

Date: 6/23/2016
Report ID: S1606193001

Alkalinity		Sample Type	MBLK		Units: mg/L				
BLANK (06/10/16 17:26)	Analyte	RunNo:	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	Alkalinity, Total (As CaCO3)	135096	ND	5					

Alkalinity		Sample Type	LCS		Units: mg/L				
ATQC (06/10/16 17:16)	Analyte	RunNo:	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	Alkalinity, Total (As CaCO3)	135096	595	5	595		99.9	90 - 110	

Alkalinity		Sample Type	DUP		Units: mg/L				
S1606193-005AD (06/10/16 23:00)	Analyte	RunNo:	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
	Alkalinity, Total (As CaCO3)	135096	ND	5	ND			20	

Anions by ION Chromatography		Sample Type	MBLK		Units: mg/L				
BLK (06/10/16 11:53)	Analyte	RunNo:	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	Sulfate	135085	ND	1					

Anions by ION Chromatography		Sample Type	LCS		Units: mg/L				
DIONEX (06/10/16 12:07)	Analyte	RunNo:	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	Sulfate	135085	146	1	150		97.4	90 - 110	

Anions by ION Chromatography		Sample Type	MS		Units: mg/L				
S1606164-006ASPK (06/10/16 22:58)	Analyte	RunNo:	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	Sulfate	135085	1640	1	1090	433	110	80 - 120	

Anions by ION Chromatography		Sample Type	MSD		Units: mg/L				
S1606164-006ASPKD (06/10/16 23:12)	Analyte	RunNo:	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
	Sulfate	135085	1630	1	1640	0.0758	110	20	

- Qualifiers:**
- B Analyte detected in the associated Method Blank
 - H Holding times for preparation or analysis exceeded
 - L Analyzed by another laboratory
 - O Outside the Range of Dilutions
 - S Spike Recovery outside accepted recovery limits
 - E Value above quantitation range
 - J Analyte detected below quantitation limits
 - ND Not Detected at the Reporting Limit
 - R RPD outside accepted recovery limits
 - X Matrix Effect



ANALYTICAL QC SUMMARY REPORT

CLIENT: Power Resources (Cameco)
Work Order: S1606193
Project: MU1 Stability Monitoring

Date: 6/23/2016
Report ID: S1606193001

Cations by ICP (Method 200.7)

Sample Type **MBLK**

Units: mg/L

MBLK DISS/CAT (06/10/16 13:36)		RunNo: 135078					
Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Calcium	ND	1					

Cations by ICP (Method 200.7)

Sample Type **LCS**

Units: mg/L

CAT LCS IML3 (06/10/16 13:40)		RunNo: 135078					
Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Calcium	39	1	40		97.3	85 - 115	

Cations by ICP (Method 200.7)

Sample Type **MS**

Units: mg/L

S1606193-002AS (06/10/16 19:28)		RunNo: 135078					
Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Calcium	71	1	25	46	97.3	70 - 130	

Cations by ICP (Method 200.7)

Sample Type **MSD**

Units: mg/L

S1606193-002ASD (06/10/16 19:31)		RunNo: 135078					
Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
Calcium	70	1	71	1.33	93.5	20	

pH Water

Sample Type **LCS**

Units: s.u.

ATQC (06/10/16 17:16)		RunNo: 135096					
Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
pH	8.7	0.1	8.6		101	90 - 110	

pH Water

Sample Type **DUP**

Units: s.u.

S1606193-005AD (06/10/16 23:00)		RunNo: 135096					
Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
pH	7.8	0.1	7.8	0.325		20	

- Qualifiers:**
- B Analyte detected in the associated Method Blank
 - H Holding times for preparation or analysis exceeded
 - L Analyzed by another laboratory
 - O Outside the Range of Dilutions
 - S Spike Recovery outside accepted recovery limits
 - E Value above quantitation range
 - J Analyte detected below quantitation limits
 - ND Not Detected at the Reporting Limit
 - R RPD outside accepted recovery limits
 - X Matrix Effect