Inter-Mountain Labs
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

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

#WEB

Client Name	Project Identification	Sampler (Signature/Attestation of Authenticity)	Telephone #
Cameco Resources, Crow Butte	Marsland Beef Samples		308-665-2215x117

Report Address
PO Box 169
Crawford, Ne 69339

Contact Name
Walt Nelson
Email: Walter_Nelson@cameco.com
Phone: 308-665-2215x117

Invoice Address
Same

Purchase Order #:
Quote #:

ANALYSES / PARAMETERS

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	U-nat, Ra226, Pb210	Th230, Po210							REMARKS
1	S1404031-001	03/28/14		Marsland Beef Sample #1	SD	1 cooler	x	x		13.6	Kg				Detection limits per Reg.
2	002	03/28/14		Marsland Beef Sample #2	SD	1 cooler	x	x		20.8	Kg				Guide 4.14 standards for
3	003	03/28/14		Marsland Beef Sample #3	SD	1 cooler	x	x		12.0	Kg				preoperational food
4															sampling.
5															U=2x10-7uci/kg
6															Th=2x10-7uci/kg
7															Ra=5x10-8uci/kg
8															Po=1x10-6uci/kg
9															Pb=1x10-6uci/kg
10															
11															
12															Each sample has been
13															shipped in a separate
14															cooler.

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
0.1°C	Walter D. Nelson / Walter D. Nelson	3/31/14	12:00	Action Cargo	3/31/14	12:00
0.4°C				Mark Broom	4/1/14	10:40
0.6°C						

SHIPPING INFO	MATRIX CODES		TURN AROUND TIMES	COMPLIANCE INFORMATION		ADDITIONAL REMARKS
☐ UPS	Water	WT	Check desired service	Compliance Monitoring ?	Y / N	
☐ FedEx	Soil	SL	☒ Standard turnaround	Program (SDWA, NPDES,...)		
☐ USPS	Solid	SD	☐ RUSH - 5 Working Days	PWSID / Permit #		
☐ Hand Carried	Filter	FT	☐ URGENT - < 2 Working Days	Chlorinated?	Y / N	
☐ Other	Other	OT	*Rush & Urgent Surcharges will be applied*	Sample Disposal: Lab x	Client	

Inter-Mountain Labs
Your Environmental Monitoring Partner
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Date: 7/29/2014

CLIENT: Cameco Resources, Crow Butte Operation
Project: Marsland Beef Samples
Lab Order: S1404031

CASE NARRATIVE

Report ID: S1404031002
(Replaces S1404031001)

Samples Marsland Beef Sample #1, Marsland Beef Sample #2, and Marsland Beef Sample #3 were received on April 1, 2014.

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

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Sample Analysis Report

Company: Cameco Resources, Crow Butte Operation
PO Box 169
Crawford, NE 69339

Date Reported 7/29/2014
Report ID S1404031002
(Replaces S1404031001)

ProjectName: Marsland Beef Samples
Lab ID: S1404031-001
ClientSample ID: Marsland Beef Sample #1
COC: WEB

WorkOrder: S1404031
CollectionDate: 3/28/2014
DateReceived: 4/1/2014 10:40:00 AM
FieldSampler:
Matrix: Animal

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
Radionuclides - Total							
Lead 210	8.8E-6	µCi/kg		1.0E-6	OTW01	04/28/2014 1117	MB
Lead 210 Precision (±)	4.0E-6	µCi/kg			OTW01	04/28/2014 1117	MB
Polonium 210	ND	µCi/kg		1.0E-6	OTW01	04/28/2014 1434	MB
Polonium 210 Precision (±)	NA	µCi/kg			OTW01	04/28/2014 1434	MB
Radium 226	1.2E-6	µCi/kg		5.0E-8	SM 7500 Ra-B	04/28/2014 1533	MB
Radium 226 Precision (±)	4.0E-7	µCi/kg			SM 7500 Ra-B	04/28/2014 1533	MB
Thorium 230	ND	µCi/kg		2.0E-7	ACW10	05/02/2014 1353	KK
Thorium230 Precision (±)	NA	µCi/kg			ACW10	05/02/2014 1353	KK
Thorium229 Tracer (30-120)	95.6	%			ACW10	05/02/2014 1353	KK
Uranium	9.0E-7	µCi/kg		2.0E-7	EPA 200.8	04/23/2014 132	MS

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 a contract 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

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Sample Analysis Report

Company: Cameco Resources, Crow Butte Operation
PO Box 169
Crawford, NE 69339

Date Reported 7/29/2014
Report ID S1404031002
(Replaces S1404031001)

ProjectName: Marsland Beef Samples
Lab ID: S1404031-002
ClientSample ID: Marsland Beef Sample #2
COC: WEB

WorkOrder: S1404031
CollectionDate: 3/28/2014
DateReceived: 4/1/2014 10:40:00 AM
FieldSampler:
Matrix: Animal

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
Radionuclides - Total							
Lead 210	5.0E-6	µCi/kg		1.0E-6	OTW01	04/28/2014 1117	MB
Lead 210 Precision (±)	2.5E-6	µCi/kg			OTW01	04/28/2014 1117	MB
Polonium 210	ND	µCi/kg		1.0E-6	OTW01	04/28/2014 1434	MB
Polonium 210 Precision (±)	NA	µCi/kg			OTW01	04/28/2014 1434	MB
Radium 226	2.0E-7	µCi/kg		5.0E-8	SM 7500 Ra-B	04/28/2014 1533	MB
Radium 226 Precision (±)	2.0E-7	µCi/kg			SM 7500 Ra-B	04/28/2014 1533	MB
Thorium 230	ND	µCi/kg		2.0E-7	ACW10	05/02/2014 1353	KK
Thorium230 Precision (±)	NA	µCi/kg			ACW10	05/02/2014 1353	KK
Thorium229 Tracer (30-120)	102	%			ACW10	05/02/2014 1353	KK
Uranium	2.0E-7	µCi/kg		2.0E-7	EPA 200.8	04/23/2014 204	MS

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	L	Analyzed by a contract 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

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Sample Analysis Report

Company: Cameco Resources, Crow Butte Operation
PO Box 169
Crawford, NE 69339

Date Reported 7/29/2014
Report ID S1404031002
(Replaces S1404031001)

ProjectName: Marsland Beef Samples
Lab ID: S1404031-003
ClientSample ID: Marsland Beef Sample #3
COC: WEB

WorkOrder: S1404031
CollectionDate: 3/28/2014
DateReceived: 4/1/2014 10:40:00 AM
FieldSampler:
Matrix: Animal

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
Radionuclides - Total							
Lead 210	6.1E-6	µCi/kg		1.0E-6	OTW01	04/28/2014 1117	MB
Lead 210 Precision (±)	6.2E-6	µCi/kg			OTW01	04/28/2014 1117	MB
Polonium 210	ND	µCi/kg		1.0E-6	OTW01	04/28/2014 1434	MB
Polonium 210 Precision (±)	NA	µCi/kg			OTW01	04/28/2014 1434	MB
Radium 226	ND	µCi/kg		5.0E-8	SM 7500 Ra-B	04/28/2014 1533	MB
Radium 226 Precision (±)	NA	µCi/kg			SM 7500 Ra-B	04/28/2014 1533	MB
Thorium 230	1.0E-6	µCi/kg		2.0E-7	ACW10	05/02/2014 1353	KK
Thorium230 Precision (±)	6.0E-7	µCi/kg			ACW10	05/02/2014 1353	KK
Thorium229 Tracer (30-120)	107	%			ACW10	05/02/2014 1353	KK
Uranium	ND	µCi/kg		2.0E-7	EPA 200.8	04/23/2014 209	MS

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 a contract 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

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ANALYTICAL QC SUMMARY REPORT

CLIENT: Cameco Resources, Crow Butte Operation
Work Order: S1404031
Project: Marsland Beef Samples

Date: 5/15/2014
Report ID: S1404031001

Pb210 in Animals Sample Type **MBLK** Units: pCi/Kg

MB14-112 (04/28/14 09:14) RunNo: 107237 PrepDate: 04/23/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Lead 210	ND	1					

Pb210 in Animals Sample Type **LCS** Units: pCi/Kg

LCS14-112 (04/28/14 09:14) RunNo: 107237 PrepDate: 04/23/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Lead 210	14	1	12		116	50 - 150	

Pb210 in Animals Sample Type **MS** Units: pCi/Kg

TAP MS (04/28/14 09:14) RunNo: 107237 PrepDate: 04/23/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Lead 210	15	1	12.5	1	113	50 - 150	

Pb210 in Animals Sample Type **MSD** Units: pCi/Kg

TAP MSD (04/28/14 09:14) RunNo: 107237 PrepDate: 04/23/14 0:00 BatchID 8140

Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
Lead 210	17	1	15	10.3	126	20	

Po210 in Animal Sample Type **MBLK** Units: pCi/Kg

MB14-112 (04/28/14 13:31) RunNo: 107198 PrepDate: 04/23/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Polonium 210	ND	1					

Po210 in Animal Sample Type **LCS** Units: pCi/Kg

LCS14-112 (04/28/14 13:31) RunNo: 107198 PrepDate: 04/23/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Polonium 210	3	1	3.07		89.2	50 - 150	

Po210 in Animal Sample Type **MS** Units: pCi/Kg

TAP MS (04/28/14 14:34) RunNo: 107198 PrepDate: 04/23/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Polonium 210	12	1	12.5	ND	97.9	50 - 150	

Po210 in Animal Sample Type **MSD** Units: pCi/Kg

TAP MSD (04/28/14 14:34) RunNo: 107198 PrepDate: 04/23/14 0:00 BatchID 8140

Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
Polonium 210	13	1	12	4.25	102	20	

Qualifiers:

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L	Analyzed by a contract laboratory	ND	Not Detected at the Reporting Limit
O	Outside the Range of Dilutions	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	X	Matrix Effect

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ANALYTICAL QC SUMMARY REPORT

CLIENT: Cameco Resources, Crow Butte Operation
Work Order: S1404031
Project: Marsland Beef Samples

Date: 5/15/2014
Report ID: S1404031001

Radium 226 in Animal Sample Type **MBLK** Units: pCi/Kg

MB14-111 (04/28/14 15:33) RunNo: 107123 PrepDate: 04/22/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Radium 226	ND	0.05					

Radium 226 in Animal Sample Type **LCS** Units: pCi/Kg

LCS14-111 (04/28/14 13:19) RunNo: 107123 PrepDate: 04/22/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Radium 226	4.9	0.05	5		98.6	87.4 - 111	

Radium 226 in Animal Sample Type **MS** Units: pCi/Kg

TAP MS (04/28/14 13:19) RunNo: 107123 PrepDate: 04/22/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Radium 226	5.0	0.05	5	ND	99.5	70.8 - 130	

Radium 226 in Animal Sample Type **MSD** Units: pCi/Kg

TAP MSD (04/28/14 13:19) RunNo: 107123 PrepDate: 04/22/14 0:00 BatchID 8140

Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
Radium 226	5.3	0.05	5.0	6.30	106	20	

Thorium 230 in Animal Sample Type **MBLK** Units: pCi/Kg

MB14-111 (05/02/14 13:53) RunNo: 107266 PrepDate: 04/21/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Thorium230	0.0 ± 0.0	0.2					

Thorium 230 in Animal Sample Type **LCS** Units: pCi/Kg

LCS14-111 (05/01/14 09:35) RunNo: 107266 PrepDate: 04/21/14 0:00 BatchID 8140

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Thorium230	13.3	0.2	12.5		106	50 - 150	

Thorium 230 in Animal Sample Type **LCSD** Units: pCi/Kg

LCS14-111 DUP (05/01/14 09:35) RunNo: 107266 PrepDate: 04/21/14 0:00 BatchID 8140

Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
Thorium230	11.5	0.2	13.3	13.6	91.8	20	

Qualifiers:

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L	Analyzed by a contract laboratory	ND	Not Detected at the Reporting Limit
O	Outside the Range of Dilutions	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits	X	Matrix Effect

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ANALYTICAL QC SUMMARY REPORT

CLIENT: Cameco Resources, Crow Butte Operation
Work Order: S1404031
Project: Marsland Beef Samples

Date: 5/15/2014
Report ID: S1404031001

Total (3050) Metals by EPA 200.8 Sample Type **MBLK** Units: pCi/Kg

MBLK (04/22/14 15:02) RunNo: 106807

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Uranium	ND	0.2					

Total (3050) Metals by EPA 200.8 Sample Type **LCS** Units: pCi/Kg

LCS (04/22/14 14:57) RunNo: 106807

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Uranium	68.8	0.2	67.7		102	85 - 115	

Total (3050) Metals by EPA 200.8 Sample Type **MS** Units: pCi/Kg

S1404031-001AS (04/23/14 01:54) RunNo: 106807

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Uranium	574	0.2	602	0.9	95.2	70 - 130	

Total (3050) Metals by EPA 200.8 Sample Type **MSD** Units: pCi/Kg

S1404031-001AMSD (04/23/14 01:59) RunNo: 106807

Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
Uranium	578	0.2	574	0.859	96.0	20	

Total (3050) Metals by EPA 200.8 Sample Type **DUP** Units: pCi/Kg

S1404031-001AD (04/23/14 01:49) RunNo: 106807

Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
Uranium	0.9	0.2	0.9	2.64		20	

Qualifiers:

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