



Inter-Mountain Labs

Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page 1 of 1

All shaded fields must be completed.

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#WEB

Client Name Crow Butte Resources		Project Identification Marsland Expansion Area		Sampler (Signature/Attestation of Authenticity) Rhonda Grantham		Telephone # (308) 665-2215 ext 115	
Report Address PO Box 169 Crawford, NE 69339		Contact Name Rhonda Grantham		ANALYSES / PARAMETERS			
Invoice Address same		Email Rhonda_Grantham@cameco.com					
		Phone (308) 665-2215 ext. 115					
		Purchase Order # 32258-000 OP		Quote # CR1106101			

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Uranium-Natural	Radium-226	Lead-210	Thorium-230					REMARKS
1	51207116-001			MA-1	FT	1	X	X	X	X					To be analyzed as per
2				MA-2	FT	1	X	X	X	X					Reg. Guide 4.14
3				MA-3	FT	1	X	X	X	X					
4				MA-4	FT	1	X	X	X	X					
5				MA-5	FT	1	X	X	X	X					MUST ACHIEVE
6															REG. GUIDE 4.14
7															DETECTION LIMITS
8															
9															
10				2nd Quarter, 2012 Environmental											
11				Air Sampling Composites											Report Results
12				as per attached air volumes											Prior To:
13															3-Aug-12
14															

LAB COMMENTS

Relinquished By (Signature/Printed)

DATE

TIME

Received By (Signature/Printed)

DATE

TIME

Rhonda Grantham

07/03/12

Kathy Boyd

7/9/12

10:49

7/9/12

SHIPPING INFO

MATRIX CODES

TURN AROUND TIMES

COMPLIANCE INFORMATION

ADDITIONAL REMARKS

<input type="checkbox"/> UPS	Water	WT	Check desired service	Compliance Monitoring ?	Y / N	
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)		Sample Air Volumes Attached
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #		
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated?	Y / N	Sampling Interval: 1/4/12 - 4/2/12
<input type="checkbox"/> Other	Other	OT	Rush & Urgent Surcharges will be applied	Sample Disposal: Lab	X	Client

Environmental Air Sampling

Marsland Expansion Area

Pump #	11114	Pump Location	MA-1
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Date	Volume (liters)
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4/18/2012	1.14E+06
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5/2/2012	1.00E+06
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5/16/2012	9.93E+05
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5/31/2012	1.07E+06
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6/13/2012	8.58E+05
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6/29/2012	1.13E+06
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Total Volume (liter	6196200
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Environmental Air Sampling

Marsland Expansion Area

Pump #	11110	Pump Location	MA-2
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Date	Volume (liters)
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4/18/2012	1.14E+06
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5/2/2012	1.00E+06
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5/16/2012	9.94E+05
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5/31/2012	1.07E+06
-----------	----------

6/13/2012	8.57E+05
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6/29/2012	1.13E+06
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Total Volume (liter	6203400
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Environmental Air Sampling

Marsland Expansion Area

Pump #	11111	Pump Location	MA-3
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Date	Volume (liters)
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4/18/2012	1.14E+06
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5/2/2012	1.00E+06
----------	----------

5/16/2012	9.91E+05
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5/31/2012	1.07E+06
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6/13/2012	8.28E+05
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6/29/2012	1.04E+06
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Total Volume (liters)	6067000
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Environmental Air Sampling

Marsland Expansion Area

Pump #	11115	Pump Location	MA-4
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Date	Volume (liters)
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4/18/2012	1.14E+06
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5/2/2012	1.00E+06
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5/16/2012	995000
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5/31/2012	1.07E+06
-----------	----------

6/13/2012	8.03E+05
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6/29/2012	1.04E+06
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Total Volume (liters)	6049000
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Environmental Air Sampling

Marsland Expansion Area

Pump #	11107	Pump Location	MA-5
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Date	Volume (liters)
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4/18/2012	1.14E+06
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5/2/2012	1.00E+06
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5/16/2012	992600
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5/31/2012	1.07E+06
-----------	----------

6/13/2012	8.57E+05
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6/29/2012	5.07E+05 Breaker Tripped
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Total Volume (liters)	5575200
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Date: 5/1/2015

CLIENT: Cameco Resources, Crow Butte Operation
Project: 2nd Quarter Composite Marshland Expansion Area
Lab Order: S1207116

CASE NARRATIVE

Report ID: S1207116002
(Replaces S1207116001)

Samples MA-1, MA-2, MA-3, MA-4, and MA-5 were received on July 9, 2012.

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

NRC radiological air particulate filters, animal, vegetation, soil and sediment samples may be composited by date and location per client's monitoring program requirements. Highly carbonaceous samples may require ashing. Samples are subjected to a modified USEPA SW-846 Method 3050B mineral acid digestion as appropriate. Analysis of the resulting solutions and digestates is performed using approved TNI, USEPA, and industry recognized analytical techniques. Where client-provided air volumes corresponding to the air filter composites exist, aqueous digestate results are converted to radiological particulate concentrations in air (e.g. $\mu\text{Ci/mL}$). Quality control parameters acceptance criteria are defined by USEPA programs, and in USNRC Regulatory Guide 4.14 (Radiological Effluent and Environmental Monitoring at Uranium Mills), USNRC Regulatory Guide 4.15 (Quality Assurance for Radiological Monitoring Programs – Effluent Streams and the Environment), the TNI Standard EL-V1-2009, and Inter-Mountain Labs internal quality procedures.

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

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

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

Date Reported 8/14/2012
Report ID: S1207116001

ProjectName: 2nd Quarter Composite Marshland Expansion Area
Lab ID: S1207116-001
ClientSample ID: MA-1
COC:

WorkOrder: S1207116
CollectionDate: 4/18/2012
DateReceived: 7/9/2012 10:49:00 AM
FieldSampler:
Matrix: Filter

Comments Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	6196200	Liters			Field	04/18/2012 000
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Radionuclides - Filter

Lead 210	68.9	pCi/Filter		2	OTW01	08/07/2012 1700	SH
Lead 210 Precision (±)	6.1	pCi/Filter			OTW01	08/07/2012 1700	SH
Lead 210	1.1E-14	µCi/mL		2.0E-15	Calculation	08/14/2012 1303	WN
Lead 210 Precision (±)	9.8E-16	µCi/mL			Calculation	08/14/2012 1303	WN
Radium 226	ND	pCi/Filter		0.3	SM 7500RAB	07/24/2012 1334	SH
Radium 226 Precision (±)	NA	pCi/Filter			SM 7500RAB	07/24/2012 1334	SH
Radium 226	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN
Radium 226 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303	WN
Thorium 230	ND	pCi/Filter		0.2	ACW10	07/27/2012 828	SH
Thorium 230 Precision (±)	NA	pCi/Filter			ACW10	07/27/2012 828	SH
Thorium 230	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN
Thorium 230 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303	WN
Uranium	ND	pCi/Filter		0.3	EPA 200.8	07/12/2012 1942	MS
Uranium	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN

These results apply only to the samples tested.**RL - Reporting Limit**

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- C Calculated Value
- H Holding times for preparation or analysis exceeded
- L Analyzed by a contract laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

- 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
- O Outside the Range of Dilutions

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

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

Date Reported 8/14/2012
Report ID: S1207116001

ProjectName: 2nd Quarter Composite Marshland Expansion Area
Lab ID: S1207116-002
ClientSample ID: MA-2
COC:

WorkOrder: S1207116
CollectionDate: 4/18/2012
DateReceived: 7/9/2012 10:49:00 AM
FieldSampler:
Matrix: Filter

Comments Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	6203400	Liters			Field	04/18/2012 000
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Radionuclides - Filter

Lead 210	82.7	pCi/Filter		2	OTW01	08/07/2012 1700	SH
Lead 210 Precision (±)	5.4	pCi/Filter			OTW01	08/07/2012 1700	SH
Lead 210	1.3E-14	µCi/mL		2.0E-15	Calculation	08/14/2012 1303	WN
Lead 210 Precision (±)	8.7E-16	µCi/mL			Calculation	08/14/2012 1303	WN
Radium 226	ND	pCi/Filter		0.3	SM 7500RAB	07/24/2012 1334	SH
Radium 226 Precision (±)	NA	pCi/Filter			SM 7500RAB	07/24/2012 1334	SH
Radium 226	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN
Radium 226 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303	WN
Thorium 230	ND	pCi/Filter		0.2	ACW10	07/30/2012 1132	SH
Thorium 230 Precision (±)	NA	pCi/Filter			ACW10	07/30/2012 1132	SH
Thorium 230	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN
Thorium 230 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303	WN
Uranium	ND	pCi/Filter		0.3	EPA 200.8	07/12/2012 2001	MS
Uranium	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN

These results apply only to the samples tested.**RL - Reporting Limit**

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- C Calculated Value
- H Holding times for preparation or analysis exceeded
- L Analyzed by a contract laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

- 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
- O Outside the Range of Dilutions

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

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

Date Reported 8/14/2012
Report ID: S1207116001

ProjectName: 2nd Quarter Composite Marshland Expansion Area
Lab ID: S1207116-003
ClientSample ID: MA-3
COC:

WorkOrder: S1207116
CollectionDate: 4/18/2012
DateReceived: 7/9/2012 10:49:00 AM
FieldSampler:
Matrix: Filter

Comments Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	6067000	Liters			Field	04/18/2012 000
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Radionuclides - Filter

Lead 210	75.7	pCi/Filter		2	OTW01	08/07/2012 1700	SH
Lead 210 Precision (±)	5.1	pCi/Filter			OTW01	08/07/2012 1700	SH
Lead 210	1.2E-14	µCi/mL		2.0E-15	Calculation	08/14/2012 1303	WN
Lead 210 Precision (±)	8.4E-16	µCi/mL			Calculation	08/14/2012 1303	WN
Radium 226	0.5	pCi/Filter		0.3	SM 7500RAB	07/24/2012 1334	SH
Radium 226 Precision (±)	0.1	pCi/Filter			SM 7500RAB	07/24/2012 1334	SH
Radium 226	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN
Radium 226 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303	WN
Thorium 230	ND	pCi/Filter		0.2	ACW10	07/30/2012 1132	SH
Thorium 230 Precision (±)	NA	pCi/Filter			ACW10	07/30/2012 1132	SH
Thorium 230	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN
Thorium 230 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303	WN
Uranium	0.3	pCi/Filter		0.3	EPA 200.8	07/12/2012 2006	MS
Uranium	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN

These results apply only to the samples tested.**RL - Reporting Limit**

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- C Calculated Value
- H Holding times for preparation or analysis exceeded
- L Analyzed by a contract laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

- 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
- O Outside the Range of Dilutions

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

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

Date Reported 8/14/2012
Report ID: S1207116001

ProjectName: 2nd Quarter Composite Marshland Expansion Area
Lab ID: S1207116-004
ClientSample ID: MA-4
COC:

WorkOrder: S1207116
CollectionDate: 4/18/2012
DateReceived: 7/9/2012 10:49:00 AM
FieldSampler:
Matrix: Filter

Comments Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	6049000	Liters			Field	04/18/2012 000
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Radionuclides - Filter

Lead 210	78.2	pCi/Filter		2	OTW01	08/07/2012 1700	SH
Lead 210 Precision (±)	5.2	pCi/Filter			OTW01	08/07/2012 1700	SH
Lead 210	1.3E-14	µCi/mL		2.0E-15	Calculation	08/14/2012 1303	WN
Lead 210 Precision (±)	8.6E-16	µCi/mL			Calculation	08/14/2012 1303	WN
Radium 226	0.3	pCi/Filter		0.3	SM 7500RAB	07/24/2012 1334	SH
Radium 226 Precision (±)	0.1	pCi/Filter			SM 7500RAB	07/24/2012 1334	SH
Radium 226	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN
Radium 226 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303	WN
Thorium 230	ND	pCi/Filter		0.2	ACW10	07/30/2012 1132	SH
Thorium 230 Precision (±)	NA	pCi/Filter			ACW10	07/30/2012 1132	SH
Thorium 230	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN
Thorium 230 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303	WN
Uranium	0.4	pCi/Filter		0.3	EPA 200.8	07/12/2012 2011	MS
Uranium	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303	WN

These results apply only to the samples tested.**RL - Reporting Limit**

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- C Calculated Value
- H Holding times for preparation or analysis exceeded
- L Analyzed by a contract laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

- 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
- O Outside the Range of Dilutions

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

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

Date Reported 8/14/2012
Report ID: S1207116001

ProjectName: 2nd Quarter Composite Marshland Expansion Area
Lab ID: S1207116-005
ClientSample ID: MA-5
COC:

WorkOrder: S1207116
CollectionDate: 4/18/2012
DateReceived: 7/9/2012 10:49:00 AM
FieldSampler:
Matrix: Filter

Comments Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
Field						
Actual Volume	5575200	Liters			Field	04/18/2012 000
Radionuclides - Filter						
Lead 210	62.2	pCi/Filter		2	OTW01	08/07/2012 1700 SH
Lead 210 Precision (±)	4.8	pCi/Filter			OTW01	08/07/2012 1700 SH
Lead 210	1.1E-14	µCi/mL		2.0E-15	Calculation	08/14/2012 1303 WN
Lead 210 Precision (±)	8.6E-16	µCi/mL			Calculation	08/14/2012 1303 WN
Radium 226	ND	pCi/Filter		0.3	SM 7500RAB	07/24/2012 1334 SH
Radium 226 Precision (±)	NA	pCi/Filter			SM 7500RAB	07/24/2012 1334 SH
Radium 226	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303 WN
Radium 226 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303 WN
Thorium 230	ND	pCi/Filter		0.2	ACW10	07/30/2012 1132 SH
Thorium 230 Precision (±)	NA	pCi/Filter			ACW10	07/30/2012 1132 SH
Thorium 230	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303 WN
Thorium 230 Precision (±)	NA	µCi/mL			Calculation	08/14/2012 1303 WN
Uranium	ND	pCi/Filter		0.3	EPA 200.8	07/12/2012 2016 MS
Uranium	ND	µCi/mL		1.0E-16	Calculation	08/14/2012 1303 WN

These results apply only to the samples tested.

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- C Calculated Value
- H Holding times for preparation or analysis exceeded
- L Analyzed by a contract laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

RL - Reporting Limit

- 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
- O Outside the Range of Dilutions

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager

**ANALYTICAL QC SUMMARY REPORT**

CLIENT: Cameco Resources, Crow Butte Operation
Work Order: S1207116
Project: 2nd Quarter Composite Marshland Expansion Area

Date: 8/14/2012
Report ID: S1207116001

Uranium, Air Filter AnalysisSample Type **MBLK** Units: pCi/Filter

Sample ID	RunNo: 84790	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MBLK	07/12/12 12:48	Uranium	ND	0.003					

Sample Type **LCS** Units: pCi/Filter

Sample ID	RunNo: 84790	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS	07/12/12 12:43	Uranium	68.2	0.3	67.7		101	85 - 115	

Sample Type **MS** Units: pCi/Filter

Sample ID	RunNo: 84790	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1207116-001BS	07/12/12 19:52	Uranium	726	0.3	745	ND	97.4	70 - 130	

Sample Type **MSD** Units: pCi/Filter

Sample ID	RunNo: 84790	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1207116-001BMSD	07/12/12 19:56	Uranium	736	0.3	726	1.43	98.8	20	

Sample Type **DUP** Units: pCi/Filter

Sample ID	RunNo: 84790	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1207116-001BD	07/12/12 19:47	Uranium	ND	0.3	ND			20	

Lead 210 in FiltersSample Type **MBLK** Units: pCi/Filter

Sample ID	RunNo: 85717	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB12-207	08/07/12 14:14	Lead 210	ND	2					

Sample Type **LCS** Units: pCi/Filter

Sample ID	RunNo: 85717	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS12-207	08/07/12 14:14	Lead 210	11	2	12.6		87.1	70 - 130	

Sample Type **MS** Units: pCi/Filter

Sample ID	RunNo: 85717	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
TAP WATER MS	08/07/12 17:00	Lead 210	15	2	12.4	ND	111	70 - 130	

Sample Type **MSD** Units: pCi/Filter

Sample ID	RunNo: 85717	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
TAP WATER MSD	08/07/12 17:00	Lead 210	14	2	15	5.45	104	30	

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		

**ANALYTICAL QC SUMMARY REPORT**

CLIENT: Cameco Resources, Crow Butte Operation
Work Order: S1207116
Project: 2nd Quarter Composite Marshland Expansion Area

Date: 8/14/2012
Report ID: S1207116001

Radium 226 Air Filter Analysis

Sample Type **MBLK** Units: pCi/Filter

Sample ID	RunNo: 85444	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB12-198	07/24/12 13:34	Radium 226	ND	0.3					

Sample Type **LCS** Units: pCi/Filter

Sample ID	RunNo: 85444	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS12-198	07/24/12 13:34	Radium 226	5.3	0.3	5.06		104	70 - 130	

Sample Type **MS** Units: pCi/Filter

Sample ID	RunNo: 85444	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
TAP WATER MS	07/24/12 17:41	Radium 226	5.1	0.3	5.06	ND	101	70 - 130	

Sample Type **MSD** Units: pCi/Filter

Sample ID	RunNo: 85444	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
TAP WATER MSD	07/24/12 17:41	Radium 226	5.0	0.3	5.1	1.89	99.2	30	

Thorium Air Filter Analysis

Sample Type **MBLK** Units: pCi/Filter

Sample ID	RunNo: 85772	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
AMB12-199	07/27/12 8:28	Thorium-230	ND	0.2					

Sample Type **LCS** Units: pCi/Filter

Sample ID	RunNo: 85772	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS	07/26/12 0:00	Thorium-230	12.4	0.2	12.5		99.3	70 - 130	

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		

**Air Filter Summary Report****Client: Cameco Resources, Crow Butte Operation****Client Sample ID: MA-1****Lab ID: S1207116-001****Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)****Sample Air Volume: 6196200 Liters**

Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	68.9	6.1	1E-14	1E-15	2E-15	6 E-13	Day	1.67
Radium 226	<0.3		<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	<0.2		<1E-16		1E-16	3 E-14	Year	0.00
Uranium	<0.3		<1E-16		1E-16	9 E-14	Year	0.00

Lab ID: S1204105-001**Sampled 1/4/12 to 4/2/12 (2012 1st Qtr)****Sample Air Volume: 6334637 Liters**

Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	115	7.5	2E-14	1E-15	2E-15	6 E-13	Day	3.33
Radium 226	<0.3		<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	<0.2		<1E-16		1E-16	3 E-14	Year	0.00
Uranium	1.4		2E-16		1E-16	9 E-14	Year	0.22

**Air Filter Summary Report****Client: Cameco Resources, Crow Butte Operation****Client Sample ID: MA-2****Lab ID: S1207116-002****Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)****Sample Air Volume: 6203400 Liters**

Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	82.7	5.4	1E-14	9E-16	2E-15	6 E-13	Day	1.67
Radium 226	<0.3		<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	<0.2		<1E-16		1E-16	3 E-14	Year	0.00
Uranium	<0.3		<1E-16		1E-16	9 E-14	Year	0.00

Lab ID: S1204105-002**Sampled 1/4/12 to 4/2/12 (2012 1st Qtr)****Sample Air Volume: 6337547 Liters**

Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	108	7.7	2E-14	1E-15	2E-15	6 E-13	Day	3.33
Radium 226	<0.3		<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	<0.2		<1E-16		1E-16	3 E-14	Year	0.00
Uranium	1.8		3E-16		1E-16	9 E-14	Year	0.33

**Air Filter Summary Report****Client: Cameco Resources, Crow Butte Operation****Client Sample ID: MA-3**

Lab ID: S1207116-003			Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)					
			Sample Air Volume: 6067000 Liters					
Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	75.7	5.1	1E-14	8E-16	2E-15	6 E-13	Day	1.67
Radium 226	0.5	0.1	<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	<0.2		<1E-16		1E-16	3 E-14	Year	0.00
Uranium	0.3		<1E-16		1E-16	9 E-14	Year	0.00

Lab ID: S1204105-003			Sampled 1/4/12 to 4/2/12 (2012 1st Qtr)					
			Sample Air Volume: 6322001 Liters					
Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	109	7.0	2E-14	1E-15	2E-15	6 E-13	Day	3.33
Radium 226	0.6	0.2	1E-16	3E-17	1E-16	9 E-13	Week	0.01
Thorium 230	1.0	0.4	2E-16	6E-17	1E-16	3 E-14	Year	0.67
Uranium	1.9		3E-16		1E-16	9 E-14	Year	0.33

**Air Filter Summary Report****Client: Cameco Resources, Crow Butte Operation****Client Sample ID: MA-4****Lab ID: S1207116-004****Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)****Sample Air Volume: 6049000 Liters**

Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	78.2	5.2	1E-14	9E-16	2E-15	6 E-13	Day	1.67
Radium 226	0.3	0.1	<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	<0.2		<1E-16		1E-16	3 E-14	Year	0.00
Uranium	0.4		<1E-16		1E-16	9 E-14	Year	0.00

Lab ID: S1204105-004**Sampled 1/4/12 to 4/2/12 (2012 1st Qtr)****Sample Air Volume: 6333500 Liters**

Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	120	7.9	2E-14	1E-15	2E-15	6 E-13	Day	3.33
Radium 226	0.4	0.1	<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	0.3	0.2	<1E-16		1E-16	3 E-14	Year	0.00
Uranium	1.6		3E-16		1E-16	9 E-14	Year	0.33

**Air Filter Summary Report****Client: Cameco Resources, Crow Butte Operation****Client Sample ID: MA-5****Lab ID: S1207116-005****Sampled 4/2/2012-6/29/2012 (2012 2nd Qtr)****Sample Air Volume: 5575200 Liters**

Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	62.2	4.8	1E-14	9E-16	2E-15	6 E-13	Day	1.67
Radium 226	<0.3		<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	<0.2		<1E-16		1E-16	3 E-14	Year	0.00
Uranium	<0.3		<1E-16		1E-16	9 E-14	Year	0.00

Lab ID: S1204105-005**Sampled 1/4/12 to 4/2/12 (2012 1st Qtr)****Sample Air Volume: 6338171 Liters**

Analyte	Result pCi/filter	Precision ± pCi/filter	Result µCi/ml	Precision ± µCi/ml	RL	10 CFR Pt 20 Effluent Limit	Effluent Class	% Effluent Conc.
Lead 210	116	7.2	2E-14	1E-15	2E-15	6 E-13	Day	3.33
Radium 226	<0.3		<1E-16		1E-16	9 E-13	Week	0.00
Thorium 230	0.2	0.2	<1E-16		1E-16	3 E-14	Year	0.00
Uranium	1.4		2E-16		1E-16	9 E-14	Year	0.22