

**CAMECO RESOURCES
CROW BUTTE OPERATION**



**86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169**

**(308) 665-2215
(308) 665-2341 – FAX**

August 22, 2022

ATTN: Document Control Desk, Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Source Materials License SUA-1534
Docket No. 40-8943
SM6-28 Monitor Well Excursion - Final Report Amendment

Dear Document Control Desk:

On May 2, 2019, during routine biweekly water sampling of Cameco Resources, Crow Butte Operation (CBO) shallow monitor well SM6-28, the multiple parameter upper control limits (MCL) for alkalinity and conductivity were exceeded. As required by License Condition 11.1.5 of Source Materials License SUA-1534, a second sample was collected within 24 hours and analyzed for the three excursion indicator parameters. The results of the second sample exceeded the MCL for alkalinity and conductivity.

In accordance with License Condition 11.2.2 of Source Materials License SUA-1534, CBO increased the sampling frequency for SM6-28 to weekly for natural uranium. Weekly samples were obtained from May 5, 2019, to November 12, 2019. It was identified during the Crow Butte Operation's scheduled NRC inspection that the results of the samples were not provided to the NRC within 60 days of the excursion confirmation as required. CBO removed SM6-28 from excursion status and returned it to routine biweekly sampling. Attached are the results of the weekly natural uranium samples. This letter and attachments are to serve as an amendment to the final notice letter dated January 29, 2020.

If you have any questions regarding this submittal, please feel free to contact me at (308) 665-2215, ext. 117.

Sincerely,
Cameco Resources
Crow Butte Operation


Casey Yada
SHEQ Coordinator

CROW BUTTE RESOURCES, INC.



Document Control Desk, Director

August 22, 2022

Page 2

Enclosures: As Stated

cc: NRC – Deputy Director
CBO - File

cc: CBO



Sample Analysis Report

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

Date Reported: 5/24/2019
Report ID: S1905379001

Project: EXCURSION MONITOR WELLS
Lab ID: S1905379-004
Client Sample ID: SM-6-28 (5-3-19)

Work Order: S1905379
Collection Date: 5/3/2019
Date Received: 5/21/2019 2:20:00 PM
Sampler:
Matrix: Water
COC: WEB


Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0566	0.0003		mg/L	05/22/2019 1723 MS	EPA 200.8

These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

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

Date Reported: 5/24/2019
Report ID: S1905379001

Project: EXCURSION MONITOR WELLS
Lab ID: S1905379-006
Client Sample ID: SM-6-28 (5-7-19)

Work Order: S1905379
Collection Date: 5/7/2019
Date Received: 5/21/2019 2:20:00 PM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0518	0.0003		mg/L	05/22/2019 1735 MS	EPA 200.8

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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

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

Date Reported: 5/24/2019
Report ID: S1905379001

Project: EXCURSION MONITOR WELLS
Lab ID: S1905379-010
Client Sample ID: SM-6-28 (5-14-19)

Work Order: S1905379
Collection Date: 5/14/2019
Date Received: 5/21/2019 2:20:00 PM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0545	0.0003		mg/L	05/22/2019 1811 MS	EPA 200.8


These results apply only to the samples tested.

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
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
X	Matrix Effect

RL - Reporting Limit

C	Calculated Value
G	Analyzed at IML Gillette laboratory
J	Analyte detected below quantitation limits
M	Value exceeds Monthly Ave or MCL or is less than LCL
O	Outside the Range of Dilutions
U	Analysis reported under the reporting limit

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

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

Date Reported: 6/18/2019
Report ID: S1906076001

Project: EXCURSION MONITOR WELLS 5/21/19-5/29/19
Lab ID: S1906076-002
Client Sample ID: SM6-28 (5-21-19)

Work Order: S1906076
Collection Date: 5/21/2019
Date Received: 6/5/2019 11:34:00 AM
Sampler:
Matrix: Water
COC: WEB

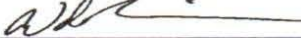
Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0564	0.0003		mg/L	06/07/2019 1321 MS	EPA 200.8

These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

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

Date Reported: 6/18/2019
Report ID: S1906076001

Project: EXCURSION MONITOR WELLS 5/21/19-5/29/19
Lab ID: S1906076-006
Client Sample ID: SM 6-28 (5-28-19)

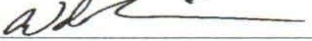
Work Order: S1906076
Collection Date: 5/28/2019
Date Received: 6/5/2019 11:34:00 AM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0628	0.0003		mg/L	06/07/2019 1357 MS	EPA 200.8

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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

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

Date Reported: 6/24/2019
Report ID: S1906359001

Project: EXCURSION MONITOR WELLS 615-6/19
Lab ID: S1906359-002
Client Sample ID: SM6-28 (6-4-19)

Work Order: S1906359
Collection Date: 6/4/2019
Date Received: 6/21/2019
Sampler: WN
Matrix: Water
COC: WEB


Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0717	0.0003		mg/L	06/22/2019 0154 MS	EPA 200.8

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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager



Sample Analysis Report

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

Date Reported: 6/24/2019
Report ID: S1906359001

Project: EXCURSION MONITOR WELLS 615-6/19
Lab ID: S1906359-006
Client Sample ID: SM6-28 (6-11-19)

Work Order: S1906359
Collection Date: 6/11/2019
Date Received: 6/21/2019
Sampler: WN
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0731	0.0003		mg/L	06/22/2019 0220 MS	EPA 200.8


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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported: 6/24/2019
Report ID: S1906359001

Project: EXCURSION MONITOR WELLS 615-6/19
Lab ID: S1906359-010
Client Sample ID: SM6-28 (6-18-19)

Work Order: S1906359
Collection Date: 6/18/2019
Date Received: 6/21/2019
Sampler: WN
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0568	0.0003		mg/L	06/22/2019 0318 MS	EPA 200.8

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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:

Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported 8/5/2019
Report ID S1907318001

ProjectName: EXCURSION MONITOR WELLS 6/26/19-7/17

WorkOrder: S1907318

Lab ID: S1907318-006

CollectionDate: 6/25/2019

ClientSample ID: SM6-28 6-25-19

DateReceived: 7/19/2019 11:57:00 AM

COC: WEB

FieldSampler:

PWS ID:

Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved


Uranium	0.0678	mg/L		0.0003	EPA 200.8	07/23/2019 108 MS
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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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager



Sample Analysis Report

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

Date Reported 8/5/2019
Report ID S1907318001

ProjectName: EXCURSION MONITOR WELLS 6/26/19-7/17

WorkOrder: S1907318

Lab ID: S1907318-007

CollectionDate: 7/2/2019

ClientSample ID: SM6-28 7-2-19

DateReceived: 7/19/2019 11:57:00 AM

COC: WEB

FieldSampler:

PWS ID:

Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved

Uranium	0.0604	mg/L		0.0003	EPA 200.8	07/23/2019 114 MS
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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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported 8/5/2019
Report ID S1907318001

ProjectName: EXCURSION MONITOR WELLS 6/26/19-7/17

WorkOrder: S1907318

Lab ID: S1907318-008

CollectionDate: 7/9/2019

ClientSample ID: SM6-28 7-9-19

DateReceived: 7/19/2019 11:57:00 AM

COC: WEB

FieldSampler:

PWS ID:

Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved


Uranium	0.0562	mg/L		0.0003	EPA 200.8	07/23/2019 121 MS
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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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported 8/5/2019
Report ID S1907318001

ProjectName: EXCURSION MONITOR WELLS 6/26/19-7/17

Lab ID: S1907318-009

ClientSample ID: SM6-28 7-16-19

COC: WEB

PWS ID:

WorkOrder: S1907318

CollectionDate: 7/16/2019

DateReceived: 7/19/2019 11:57:00 AM

FieldSampler:

Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved

Uranium	0.0696	mg/L		0.0003	EPA 200.8	07/23/2019 127 MS
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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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager



Sample Analysis Report

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

Date Reported 8/15/2019
Report ID S1908028001

ProjectName: EXCURSION MONITOR WELLS 7/23/19-7/31

Lab ID: S1908028-002

ClientSample ID: SM6-28 7-23-19

COC: WEB

PWS ID:

Comments

WorkOrder: S1908028
CollectionDate: 7/23/2019
DateReceived: 8/2/2019 11:55:00 AM
FieldSampler:
Matrix: Water

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved


Uranium	0.0615	mg/L		0.0003	EPA 200.8	08/02/2019 2113 MS
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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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager



Inter-Mountain Labs

Your Environmental Monitoring Partner

1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Sample Analysis Report

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

Date Reported 8/15/2019
Report ID S1908028001

ProjectName: EXCURSION MONITOR WELLS 7/23/19-7/31

WorkOrder: S1908028

Lab ID: S1908028-006

CollectionDate: 7/30/2019

ClientSample ID: SM6-28 7-30-19

DateReceived: 8/2/2019 11:55:00 AM

COC: WEB

FieldSampler:

PWS ID:

Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved

Uranium	0.0747	mg/L		0.0003	EPA 200.8	08/02/2019 2137 MS
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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
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
X Matrix Effect

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager

Page 6 of 8



Inter-Mountain Laboratories

1673 Terra Avenue Sheridan, WY 82801

Your Environmental Monitoring Partner

ph: (307) 672-8945

Sample Analysis Report

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

Date Reported: 8/28/2019
Report ID: S1908321001

Project: EXCURSION MONITOR WELLS 08/06-08/20
Lab ID: S1908321-001
Client Sample ID: SM6-28 8-6-19

Work Order: S1908321
Collection Date: 8/6/2019
Date Received: 8/21/2019 12:05:00 PM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0764	0.0003		mg/L	08/24/2019 1216 MS	EPA 200.8

These results apply only to the samples tested.

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
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
X	Matrix Effect

RL - Reporting Limit

C	Calculated Value
G	Analyzed at IML Gillette laboratory
J	Analyte detected below quantitation limits
M	Value exceeds Monthly Ave or MCL or is less than LCL
O	Outside the Range of Dilutions
U	Analysis reported under the reporting limit

Reviewed by:



Jessica Nixon, Project Manager



Inter-Mountain Laboratories

Your Environmental Monitoring Partner

1673 Terra Avenue Sheridan, WY 82801

ph: (307) 672-8945

Sample Analysis Report

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

Date Reported: 8/28/2019
Report ID: S1908321001

Project: EXCURSION MONITOR WELLS 08/06-08/20
Lab ID: S1908321-002
Client Sample ID: SM6-28 8-13-19

Work Order: S1908321
Collection Date: 8/13/2019
Date Received: 8/21/2019 12:05:00 PM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0776	0.0003		mg/L	08/24/2019 1234 MS	EPA 200.8

These results apply only to the samples tested.

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
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
X	Matrix Effect

RL - Reporting Limit

C	Calculated Value
G	Analyzed at IML Gillette laboratory
J	Analyte detected below quantitation limits
M	Value exceeds Monthly Ave or MCL or is less than LCL
O	Outside the Range of Dilutions
U	Analysis reported under the reporting limit

Reviewed by: 
Jessica Nixon, Project Manager

Page 2 of 5



Sample Analysis Report

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

Date Reported: 8/28/2019
Report ID: S1908321001

Project: EXCURSION MONITOR WELLS 08/06-08/20
Lab ID: S1908321-003
Client Sample ID: SM6-28 8-20-19

Work Order: S1908321
Collection Date: 8/20/2019
Date Received: 8/21/2019 12:05:00 PM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0683	0.0003		mg/L	08/24/2019 1240 MS	EPA 200.8


These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager



Inter-Mountain Laboratories
1673 Terra Avenue Sheridan, WY 82801

Your Environmental Monitoring Partner
ph: (307) 672-8945

Sample Analysis Report

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

Date Reported 10/9/2019
Report ID S1910037001

ProjectName: EXCURSION MONITOR WELLS 8/27/19-9/24/19
Lab ID: S1910037-001
ClientSample ID: SM6-28 8-27-19
COC: WEB
PWS ID:
Comments

WorkOrder: S1910037
CollectionDate: 8/27/2019
DateReceived: 10/3/2019 7:08:00 AM
FieldSampler:
Matrix: Water

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved

Uranium	0.0657	mg/L		0.000300	EPA 200.8	10/04/2019 405 MS
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These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by: 
Jessica Nixon, Project Manager



Inter-Mountain Laboratories
1673 Terra Avenue Sheridan, WY 82801

Your Environmental Monitoring Partner
ph: (307) 672-8945

Sample Analysis Report

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

Date Reported 10/9/2019
Report ID S1910037001

ProjectName: EXCURSION MONITOR WELLS 8/27/19-9/24/19
Lab ID: S1910037-002
ClientSample ID: SM6-28 9-3-19
COC: WEB
PWS ID:

WorkOrder: S1910037
CollectionDate: 9/3/2019
DateReceived: 10/3/2019 7:08:00 AM
FieldSampler:
Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved


Uranium	0.0708	mg/L		0.000300	EPA 200.8	10/04/2019 411 MS
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These results apply only to the samples tested.

Qualifiers:
B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by: 
Jessica Nixon, Project Manager



Inter-Mountain Laboratories
1673 Terra Avenue Sheridan, WY 82801

Your Environmental Monitoring Partner
ph: (307) 672-8945

Sample Analysis Report

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

Date Reported 10/9/2019
Report ID S1910037001

ProjectName: EXCURSION MONITOR WELLS 8/27/19-9/24/19
Lab ID: S1910037-003
ClientSample ID: SM6-28 9-10-19
COC: WEB
PWS ID:

WorkOrder: S1910037
CollectionDate: 9/10/2019
DateReceived: 10/3/2019 7:08:00 AM
FieldSampler:
Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved

Uranium	0.0683	mg/L		0.000300	EPA 200.8	10/04/2019 417 MS
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These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by: 
Jessica Nixon, Project Manager



Inter-Mountain Laboratories
1673 Terra Avenue Sheridan, WY 82801

Your Environmental Monitoring Partner
ph: (307) 672-8945

Sample Analysis Report

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

Date Reported 10/9/2019
Report ID S1910037001

ProjectName: EXCURSION MONITOR WELLS 8/27/19-9/24/19
Lab ID: S1910037-004
ClientSample ID: SM6-28 9-17-19
COC: WEB
PWS ID:

WorkOrder: S1910037
CollectionDate: 9/17/2019
DateReceived: 10/3/2019 7:08:00 AM
FieldSampler:
Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved


Uranium	0.0695	mg/L		0.000300	EPA 200.8	10/04/2019 435 MS
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These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by: 
Jessica Nixon, Project Manager



Inter-Mountain Laboratories
1673 Terra Avenue Sheridan, WY 82801

Your Environmental Monitoring Partner
ph: (307) 672-8945

Sample Analysis Report

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

Date Reported 10/9/2019
Report ID S1910037001

ProjectName: EXCURSION MONITOR WELLS 8/27/19-9/24/19
Lab ID: S1910037-005
ClientSample ID: SM6-28 9-24-19
COC: WEB
PWS ID:

WorkOrder: S1910037
CollectionDate: 9/24/2019
DateReceived: 10/3/2019 7:08:00 AM
FieldSampler:
Matrix: Water

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Metals - Dissolved


Uranium	0.0717	mg/L		0.000300	EPA 200.8	10/04/2019 441 MS
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These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by: 
Jessica Nixon, Project Manager



Sample Analysis Report

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

Date Reported: 11/25/2019
Report ID: S1911263001

Project: EXCURSION MONITOR WELLS 10/1-11/12
Lab ID: S1911263-001
Client Sample ID: SM6-28 10-1-19

Work Order: S1911263
Collection Date: 10/1/2019
Date Received: 11/20/2019 11:46:00 AM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0716	0.0003		mg/L	11/21/2019 0128 MS	EPA 200.8

These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:

Jessica Nixon, Project Manager



Sample Analysis Report

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

Date Reported: 11/25/2019
Report ID: S1911263001

Project: EXCURSION MONITOR WELLS 10/1-11/12
Lab ID: S1911263-002
Client Sample ID: SM6-28 10-8-19

Work Order: S1911263
Collection Date: 10/18/2019
Date Received: 11/20/2019 11:46:00 AM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0606	0.0003		mg/L	11/21/2019 0203 MS	EPA 200.8


These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported: 11/25/2019
Report ID: S1911263001

Project: EXCURSION MONITOR WELLS 10/1-11/12
Lab ID: S1911263-003
Client Sample ID: SM6-28 10-15-19

Work Order: S1911263
Collection Date: 10/15/2019
Date Received: 11/20/2019 11:46:00 AM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0704	0.0003		mg/L	11/21/2019 0209 MS	EPA 200.8

These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:

Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported: 11/25/2019
Report ID: S1911263001

Project: EXCURSION MONITOR WELLS 10/1-11/12
Lab ID: S1911263-004
Client Sample ID: SM6-28 10-22-19

Work Order: S1911263
Collection Date: 10/22/2019
Date Received: 11/20/2019 11:46:00 AM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0696	0.0003		mg/L	11/21/2019 0215 MS	EPA 200.8

These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:

Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported: 11/25/2019
Report ID: S1911263001

Project: EXCURSION MONITOR WELLS 10/1-11/12
Lab ID: S1911263-005
Client Sample ID: SM6-28 10-29-19

Work Order: S1911263
Collection Date: 10/29/2019
Date Received: 11/20/2019 11:46:00 AM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0724	0.0003		mg/L	11/21/2019 0221 MS	EPA 200.8


These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported: 11/25/2019
Report ID: S1911263001

Project: EXCURSION MONITOR WELLS 10/1-11/12
Lab ID: S1911263-006
Client Sample ID: SM6-28 11-5-19

Work Order: S1911263
Collection Date: 11/5/2019
Date Received: 11/20/2019 11:46:00 AM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0710	0.0003		mg/L	11/21/2019 0227 MS	EPA 200.8


These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager

**Sample Analysis Report**

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

Date Reported: 11/25/2019
Report ID: S1911263001

Project: EXCURSION MONITOR WELLS 10/1-11/12
Lab ID: S1911263-007
Client Sample ID: SM6-28 11-12-19

Work Order: S1911263
Collection Date: 11/12/2019
Date Received: 11/20/2019 11:46:00 AM
Sampler:
Matrix: Water
COC: WEB

Analyses	Result	RL	Qual	Units	Date Analyzed/Init	Method
Dissolved Metals						
Uranium	0.0692	0.0003		mg/L	11/21/2019 0233 MS	EPA 200.8


These results apply only to the samples tested.

Qualifiers: B Analyte detected in the associated Method Blank
E Value above quantitation range
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
X Matrix Effect

RL - Reporting Limit

C Calculated Value
G Analyzed at IML Gillette laboratory
J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL or is less than LCL
O Outside the Range of Dilutions
U Analysis reported under the reporting limit

Reviewed by:


Jessica Nixon, Project Manager