



**CAMECO RESOURCES  
CROW BUTTE OPERATION**

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October 1, 2019

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

Semiannual Radiological Effluent and Environmental Monitoring Report  
Source Materials License No. SUA-1534, Docket No. 40-8943

Dear Document Control:

The First Half 2019 Semiannual Radiological Effluent and Environmental Monitoring Report was submitted on August 28, 2019. In that report, it was noted that the radium results for several quarterly private well and surface water samples were well above historical norms. A rerun had been ordered from the contract laboratory, but the results were not available at the time the report was submitted, so Appendix A was populated with the elevated data. Please find attached to this memo, a replacement page for Appendix A. The replacement page has been populated with the rerun data from the contract laboratory. The rerun data is much more in line with historical norms.

If you have any questions concerning the report, please feel free to call me at (308) 665-2215 Ext 117.

Sincerely,  
CAMECO RESOURCES  
CROW BUTTE OPERATION

Walter D. Nelson  
SHEQ Coordinator

cc: Ron Burrows – NRC  
CBO – File  
ec: Amanda Jones – NDEQ Program Coordinator  
CR – Electronic File

IE25  
IE48  
NM5520  
NM55

**CROW BUTTE RESOURCES, INC.**

**PRIVATE WELL AND SURFACE WATER RADIOLOGICAL MONITORING RESULTS**

**Second Quarter, 2019**

<b>SAMPLE ID</b>	<b>DATE SAMPLED</b>	<b>URANIUM mg/l</b>	<b>URANIUM µCi/ml</b>	<b>RADIUM-226 pCi/l</b>	<b>RADIUM-226 precision ±</b>
Well #8	06/18/19	0.0149	1.01E-08	0.4	0.1
Well #11	Well Inoperable				
Well #12	06/18/19	0.0038	2.60E-09	2.5	0.4
Well #26	06/18/19	0.0059	4.00E-09	1.0	0.2
Well #28	06/18/19	0.0061	4.10E-09	0.6	0.2
Well #38	06/18/19	0.0034	2.30E-09	0.9	0.4
Well #41	06/19/19	0.0119	8.10E-09	0.6	0.1
Well #61	06/19/19	<.0003	<2.0E-10	3.2	0.2
Well #63	06/18/19	0.0167	1.13E-08	0.7	0.1
Well #66	06/19/19	0.0218	1.48E-08	0.4	0.1
Well #125	06/19/19	0.0063	4.30E-09	0.3	0.1
Well #129	06/19/19	0.0059	4.00E-09	0.2	0.05
Well #131	06/18/19	0.0052	3.50E-09	1.0	0.1
Well #133	06/18/19	0.0096	6.50E-09	0.5	0.1
Well #134	06/18/19	0.0070	4.70E-09	0.4	0.1
Well #135	06/18/19	0.0171	1.16E-08	0.4	0.1
Well #138	06/19/19	0.0154	1.04E-08	1.0	0.1
Well #140	06/18/19	0.0087	5.90E-09	0.3	0.1
Well #435	06/19/19	0.0075	5.10E-09	0.4	0.1
Well #445	06/18/19	0.0118	8.00E-09	0.5	0.1
Drinking Water Well	06/18/19	0.0067	4.50E-09	0.6	0.5
Stream S-1	06/18/19	0.0048	3.30E-09	1.2	0.7
Stream S-2	06/18/19	0.0041	2.80E-09	2.4	0.2
Stream S-5	06/18/19	0.0045	3.00E-09	1.1	0.2
Stream E-1 & 2 Composite	06/18/19	0.0185	1.85E-08	0.7	0.1
Stream E-5	06/18/19	0.0041	2.80E-09	0.3	0.2
Impoundment I-3	06/18/19	0.0141	9.60E-09	0.7	0.1
Impoundment I-4	06/18/19	0.0084	5.70E-09	0.6	0.1
Impoundment I-5	06/18/19	0.0046	3.10E-09	0.3	0.2
<b>Reporting Limit</b>		<b>0.0003</b>	<b>2.00E-10</b>	<b>0.2</b>	<b>-</b>

ND-Not detected at the reporting limit