



July 30, 2015

Attn: Control Documents  
Office of Nuclear Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
11545 Rockville Pike  
Rockville, MD 20852

**License SUA-1548, Docket No. 40-8964**  
**Surety Estimate Update for Gas Hills ISR Project**

**CAMECO RESOURCES**

**Project Development**  
550 N. Poplar Street  
Suite 100  
Casper, WY  
82601 USA

Tel: (307) 237 - 2128  
Fax: (307) 237 - 2142

[www.cameco.com](http://www.cameco.com)

Dear Sirs:

Pursuant to License Condition 9.5, Power Resources, Inc. d/b/a Cameco Resources (Cameco) is herein providing a copy of the proposed 2015-16 reclamation surety bond estimate for the Gas Hills ISR Project. The proposed surety estimate of \$3,002,339 covers the cost of existing building demolition and disposal, well abandonment, and other miscellaneous surface reclamation. This surety estimate has been submitted to the Wyoming Department of Environmental Quality (WDEQ) in an annual report dated August 7, 2015.

Cameco has not included groundwater restoration costs for the Gas Hills Satellite Facility as it is still within the developmental stage. If you have any questions or concerns regarding this estimate please feel free to contact Jeanie Wolford at 307-333-7644 or by email at [Jeanie\\_wolford@cameco.com](mailto:Jeanie_wolford@cameco.com).

Sincerely,

Cameco Resources

Larry McGonagle  
SHEQ Manager, Division

Enclosures:

Appendix B: 2015-16 GH Reclamation Surety Bond Estimate

JW:jmw

NM5520

## **Appendix B**

### **2015-16 RECLAMATION SURETY BOND ESTIMATE**

WDEQ Permit No. 687 Annual Report / NRC SUA-1548

Gas Hills ISR Project - Cameco Resources

#### **Bond Calculation Changes**

##### **I BLDGS**

Increase Building Demolition (App. K)	\$0.14
Increase Concrete Floor Demolition (App. K)	\$0.35
Increase Concrete Footing Demolition	\$1.31
Increase Concrete Disposal On-Site (App. K)	\$0.38
<b>Net Increase</b>	<b>\$57,263</b>

##### **II Well Abandonment**

Decrease Drill Hole Abandonment	-\$11,550.00
Increase Operator/Laborer Costs*	\$0.05
<b>Net Decrease</b>	<b>-\$11,446.00</b>

##### **III Miscellaneous Reclamation**

Decrease ripping costs	-\$0.70
Decrease Seeding costs	\$217.67
Decrease Culvert Removal Costs	\$1.61
Decrease Surface water station removal	-\$38.46
Decrease Air Mon. Station Removal	-\$25.17
<b>Net Decrease</b>	<b>-\$22,067.00</b>

<b>2014 Surety Calculation</b>	<b>\$2,975,027.00</b>
<b>2015 Proposed Surety Calculation</b>	<b>\$3,002,339.00</b>
<b>Net Increase + contingency</b>	<b>\$27,312</b>

## Appendix B

### 2015-16 RECLAMATION SURETY BOND ESTIMATE

WDEQ Permit No. 687 Annual Report / NRC SUA-1548  
Gas Hills ISR Project - Cameco Resources

#### Total Restoration and Reclamation Cost Estimate

I.	Building Demolition and Disposal Cost		\$1,892,942
II.	Well & Drill Hole Abandonment		\$320,977
III.	Miscellaneous Surface Reclamation Cost		\$396,811
	Subtotal Restoration and Reclamation Cost Estimate		\$2,610,729
	Contractor Profit & Overhead (10%) <sup>1</sup>	See Master Costs	
	Contingency (15%) <sup>2</sup>	15%	\$391,609
		<b>TOTAL<sup>3</sup></b>	<b>\$3,002,339</b>

<sup>1</sup>, Per WDEQ/LQD Guideline No. 12, Section 12(b)

<sup>2</sup>, Per WDEQ/LQD Guideline No. 12, Section 12(a) and (c-h), Section 13 and NRC License Condition 9.5 (SUA-1548)

<sup>3</sup>, Costs reflect both WDEQ & NRC requirements. No salvage value assumed.

**2015-16 RECLAMATION SURETY BOND ESTIMATE**  
**WDEQ Permit No. 687 Annual Report / NRC SUA-1548**  
**Gas Hills ISR Project - Cameco Resources**

**Part I. Building Demolition and Disposal**

<b>Building &amp; Other Miscellaneous Demolition and Disposal</b>	<b>Carol Shop</b>	<b>Tire Shop</b>	<b>Change House</b>	<b>Air Comp Building</b>	<b>Water Treat Building</b>	<b>BaCl Building</b>
<b>I. Demolition Costs</b>						
A. Building (Tanks)						
Volume of Building (ft <sup>3</sup> )	1,977,851	54,560	18,600	6,240	6,600	6,600
<u>Demolition Cost</u>	\$0.330	\$0.330	\$0.330	\$0.330	\$0.330	\$0.330
Subtotal Building Demolition Costs	\$652,691	\$18,005	\$6,138	\$2,059	\$2,178	\$2,178
B. Concrete Floor						
Area of Concrete Floor (ft <sup>2</sup> )	56,985	2,480	1,860	520	600	864
<u>Demolition Cost</u>	\$6.38	\$6.38	\$6.38	\$6.38	\$6.38	\$6.38
Subtotal Concrete Floor Demolition Costs	\$363,564	\$15,822	\$11,867	\$3,318	\$3,828	\$5,512
C. Concrete Footing						
Length of Concrete Footing (ft)	1,221	204	184	48	60	48
<u>Demolition Cost</u>	\$23.54	\$23.54	\$23.54	\$23.54	\$23.54	\$23.54
Subtotal Concrete Footing Demolition Costs	\$28,742	\$4,802	\$4,331	\$1,130	\$1,412	\$1,130
Subtotal Demolition Costs per Building	\$1,044,997	\$38,629	\$22,336	\$6,507	\$7,418	\$8,820
<b>Total Demolition Costs</b>	<b>\$1,128,707</b>					
<b>II. Disposal Costs</b>						
A. Building						
Volume of Building (cy)	48,838	2,021	689	231	244	244
Off-Site County Landfill						
Percentage (%)	100	100	100	100	100	100
Total Volume for Disposal - Incl. 33% Factor (cy)	16,117	667	227	76	81	81
<u>Disposal Cost Landfill (cy)</u>	\$42.17	\$42.17	\$42.17	\$42.17	\$42.17	\$42.17
Subtotal County Facility Off-Site Disposal Costs	\$679,585	\$28,119	\$9,586	\$3,216	\$3,401	\$3,401
B. Concrete Floor						
Area of Concrete Floor (ft <sup>2</sup> )	56,985	2,480	1,860	520	600	864
Average Thickness of Concrete Floor (ft)	0.75	0.75	0.75	0.75	0.75	0.75
Volume of Concrete Floor (ft <sup>3</sup> )	42,739	1,860	1,395	390	450	648
Volume of Concrete Floor (cy)	1,583	69	52	14	17	24
1. On-Site Concrete Disposal						
Percentage (%)	100	100	100	100	100	100
Volume for Disposal (cy)	1,583	69	52	14	17	24
<u>Concrete Disposal On Site (cy)</u>	\$9.94	\$9.94	\$9.94	\$9.94	\$9.94	\$9.94
Subtotal County Facility Off-Site Disposal Costs	\$15,741	\$685	\$514	\$144	\$166	\$239
Subtotal Concrete Floor Disposal Costs	\$15,741	\$685	\$514	\$144	\$166	\$239
C. Concrete Footing						
Length of Concrete Footing (ft)	1,221	204	184	48	60	48
Average Depth of Concrete Footing (ft)	4	4	4	4	4	4
Average Width of Concrete Footing (ft)	0.75	0.75	0.75	0.75	0.75	0.75
Volume of Concrete Footing (ft <sup>3</sup> )	3663	612	552	144	180	144
Volume of Concrete Footing (cy)	136	23	20	5	7	5
<u>Concrete Disposal On Site (cy)</u>	\$9.94	\$9.94	\$9.94	\$9.94	\$9.94	\$9.94
Subtotal Concrete Footing Disposal Costs	\$1,349	\$225	\$203	\$53	\$66	\$53
Subtotal Disposal Costs per Building	\$712,416	\$29,714	\$10,817	\$3,557	\$3,799	\$3,932
<b>Total Disposal Costs</b>	<b>\$764,235</b>					
<b>TOTAL BUILDING &amp; OTHER MISCELLANEOUS DEMOLITION AND DISPOSAL COSTS</b>						<b>\$1,892,942</b>

**2015-16 RECLAMATION SURETY BOND ESTIMATE**  
**WDEQ Permit No. 687 Annual Report / NRC SUA-1548**  
**Gas Hills ISR Project - Cameco Resources**

**Part II - Well and Drill Hole Abandonment**

<b>I. Well Abandonment</b>		<b>Water Wells</b>	<b>Misc Wells</b>
<b>A. Sealing Costs</b>			
Total # of Wells per Wellfield		2	54
Well Average Depth (ft)		1600	451
<u>Well Abandonment (Sealing) Costs (\$/ft)</u>		\$3.30	\$3.30
Subtotal Sealing Costs per Wellfield		\$10,560	\$80,368
<b>B. Casing Removal and Disposal Costs</b>			
Total # of Wells per Wellfield		2	54
Total # of Wells for Casing Removal and Disposal		2	54
<u>Remove and Dispose Casing (\$/well)</u>		\$33	\$33
Subtotal Casing Removal and Disposal Costs per Wellfield		\$99	\$1,881
Subtotal Well Abandonment Costs per Wellfield		\$10,659	\$82,249
<b>C. Incidental Costs</b>			
1 <u>Remove Pump, Wiring, and Drop Pipe</u>		\$0.44	\$0.44
Subtotal Removal of Pump, Wiring, and Drop Pipe		\$1,056.00	\$0.00
2 <u>Monitoring Well Concrete Pedestal Disposal</u>		\$110	\$110
Subtotal Monitoring Well Concrete Pedestal Disposal		\$0	\$5,940
Subtotal Incidental Costs		\$1,056.00	\$5,940.00
	Subtotal Well Abandonment Costs	\$22,275	\$168,557
	<b>Total Well Abandonment Costs</b>	<b>\$190,832</b>	
<b>II. Waste Disposal Well Abandonment</b>			
<b>A. Well Sealing</b>		<b>DDW #1</b>	<b>DDW #2</b>
Total Depth of Well (feet)		3794	5389
<u>Sealing cost per foot (in UIC permit)</u>		\$13.62	\$13.62
Subtotal Plugging Costs per Well (in UIC permit)		\$51,674	\$73,398
<b>B. Pump Dismantling and Decontamination</b>			
Number of Persons		2	2
Number of Pumps		2	2
Pumps/Day		0.5	0.5
Number of Days		4	4
<u>\$/Day/Person</u>		\$297.68	\$297.68
Subtotal Dismantling and Decon Costs per Well		\$2,381.47	\$2,381.47

**2015-16 RECLAMATION SURETY BOND ESTIMATE**  
**WDEQ Permit No. 687 Annual Report / NRC SUA-1548**  
**Gas Hills ISR Project - Cameco Resources**

C. Tubing String Disposal (C&D Landfill)

Length of Tubing String (ft)	3400	5100
Diameter of Tubing String (inches)	2.875	2.875
Volume of Tubing String (ft <sup>3</sup> )	79	119
<u>Transportation and Disposal Unit Cost (\$/ft<sup>3</sup>)</u>	\$1.56	\$1.56
Subtotal Tubing String Disposal Costs per Well	\$123.64	\$185.47
	\$54,179.39	\$75,965.11
<b>Total Waste Disposal Well Abandonment Costs</b>	<b>\$130,145</b>	
<b>Total Well Abandonment</b>	<b>\$320,977</b>	

**2015-16 RECLAMATION SURETY BOND ESTIMATE**  
**WDEQ Permit No. 687 Annual Report / NRC SUA-1548**  
**Gas Hills ISR Project - Cameco Resources**  
**Part III. Miscellaneous Surface Reclamation**

**I. Carol Shop/Office Area**

Assumptions	
Surface grade	0%
Surface Area (acres)	21.00
A. Ripping Overburden with Dozer	
Overburden Surface Area (acres)	21.00
<u>Ripping Cost (per acre)</u>	\$1,380.50
Subtotal Ripping Overburden Costs	\$28,991
B. Topsoil Application	
Area of surface disturbance (ft <sup>2</sup> )	21.00
Average thickness of topsoil (ft)	0.5
Average haul distance (ft)	500
Surface grade (%)	0%
Volume of Topsoil (cy)	16940
<u>Moving Materials (0% Grade)</u>	\$1.44
Subtotal Topsoil Application Costs	\$24,429
C. Discing/Seeding	
Surface Area (acres)	21.00
<u>Discing/Seeding Unit Cost (\$/acre)</u>	\$330
Subtotal Discing/Seeding Costs	\$6,930
<b>Total Carol Shop/Office Area Reclamation</b>	<b>\$60,350</b>

**II. Carol Shop Road**

Assumptions	
Surface grade	0%
Length of Road (ft)	26400
Width of Road (ft)	50
Area of road (acres)	30.30
Culverts (per 20' Section)	40
A. Ripping Overburden with Dozer	
Overburden Surface Area (acres)	30.30
<u>Ripping Cost (per acre)</u>	\$1,380.50
Subtotal Ripping Overburden Costs	\$41,833

**2015-16 RECLAMATION SURETY BOND ESTIMATE**  
**WDEQ Permit No. 687 Annual Report / NRC SUA-1548**  
**Gas Hills ISR Project - Cameco Resources**  
**Part III. Miscellaneous Surface Reclamation**

B.	Gravel Road Base Removal	
	Average haul distance (ft)	1000
	Gravel Road Base Width (ft)	50
	Gravel Road Base Area (acres)	1320000
	Average Road Base Depth (ft)	0.5
	Volume of Road Base (cy)	24444
	<u>Moving Materials (0% Grade)</u>	\$1.44
	Subtotal Gravel Road Base Removal Costs	\$35,251
C.	Topsoil Application	
	Average haul distance (ft)	1000
	Topsoil Surface Area (ft <sup>2</sup> )	1320000
	Depth of Topsoil (ft)	0.5
	Volume of Topsoil (cy)	24444
	<u>Moving Materials (0% Grade)</u>	\$1.44
	Subtotal Topsoil Application Costs	\$35,251
D.	Discing/Seeding	
	Surface Area (acres)	30.3
	<u>Discing/Seeding Unit Cost (\$/acre)</u>	\$330
	Subtotal Discing/Seeding Costs	\$10,000
E.	Culvert Removal	
	Culverts (per 20' Section)	40
	<u>Culvert Removal Unit Cost</u>	\$151
	Fill Removal/Drainage Reestablishment	\$500
	Subtotal Culvert Removal	\$26,057.04
	<b>Total Carol Shop Road Reclamation</b>	<b>\$148,392.71</b>

**III. AML Road Reclamation**

	Assumptions	
	Surface grade	0%
	Length of Road (ft)	22704
	Width of Road (ft)	66
	Area of road (acres)	34.40
	Culverts (per 20' Section)	20
A.	Ripping Overburden with Dozer	
	Overburden Surface Area (acres)	34.40
	<u>Ripping Cost (per acre)</u>	\$1,380.50
	Subtotal Ripping Overburden Costs	\$47,489



**2015-16 RECLAMATION SURETY BOND ESTIMATE**  
**WDEQ Permit No. 687 Annual Report / NRC SUA-1548**  
**Gas Hills ISR Project - Cameco Resources**  
**Part III. Miscellaneous Surface Reclamation**

B.	Gravel Road Base Removal	
	Average haul distance (ft)	1000
	Gravel Road Base Width (ft)	66
	Gravel Road Base Area (acres)	1498464
	Average Road Base Depth (ft)	0.5
	Volume of Road Base (cy)	27749
	<u>Moving Materials (0% Grade)</u>	\$1.44
	Subtotal Gravel Road Base Removal Costs	\$40,017
C.	Topsoil Application	
	Average haul distance (ft)	1000
	Topsoil Surface Area (ft <sup>2</sup> )	1498464
	Depth of Topsoil (ft)	0.5
	Volume of Topsoil (cy)	27749
	<u>Moving Materials (0% Grade)</u>	\$1.44
	Subtotal Topsoil Application Costs	\$40,017
D.	Discing/Seeding	
	Surface Area (acres)	34.4
	<u>Discing/Seeding Unit Cost (\$/acre)</u>	\$330
	Subtotal Discing/Seeding Costs	\$11,352
E.	Culvert Removal	
	Culverts (per 20' Section)	20
	<u>Culvert Removal Unit Cost</u>	\$102
	Fill Removal/Drainage Reestablishment	\$500
	Subtotal Culvert Removal	\$12,048.20
	<b>Total AML Road Reclamation</b>	<b>\$150,923.71</b>

**IV. Waste Disposal Injection Well Pads and Access Road**

	Assumptions	
	Surface grade	0%
	Surface Area (acres)	3.00
	Length of Road (ft)	1000
	Width of Road (ft)	20
	Area of road (acres)	0.46
	Quantity	2
A.	Ripping Overburden with Dozer	
	Overburden Surface Area (acres)	3.00
	<u>Ripping Cost (per acre)</u>	\$1,380.50
	Subtotal Ripping Overburden Costs	\$8,283

**2015-16 RECLAMATION SURETY BOND ESTIMATE**  
**WDEQ Permit No. 687 Annual Report / NRC SUA-1548**  
**Gas Hills ISR Project - Cameco Resources**  
**Part III. Miscellaneous Surface Reclamation**

B.	Topsoil Application	
	Area of surface disturbance (ft <sup>2</sup> )	3.00
	Average thickness of topsoil (ft)	0.5
	Average haul distance (ft)	500
	Surface grade (%)	0%
	Volume of Topsoil (cy)	2420
	<u>Moving Materials (0% Grade)</u>	\$1.44
	Subtotal Topsoil Application Costs	\$6,980
C.	Discing/Seeding	
	Surface Area (acres)	3.00
	<u>Discing/Seeding Unit Cost (\$/acre)</u>	\$330
	Subtotal Discing/Seeding Costs	\$1,980
	<b>Total Waste Disposal Injection Well Pads and Access Road</b>	<b>\$17,243.00</b>
V.	Water Supply Wells and Access Road	
	Assumptions	
	Surface grade	0%
	Surface Area (acres)	1
	Length of Road (ft)	2500
	Width of Road (ft)	20
	Area of road (acres)	1.15
	Quantity	2
A.	Ripping Overburden with Dozer	
	Overburden Surface Area (acres)	1.00
	<u>Ripping Cost (per acre)</u>	\$1,380.50
	Subtotal Ripping Overburden Costs	\$2,761
B.	Topsoil Application	
	Area of surface disturbance (ft <sup>2</sup> )	1.00
	Average thickness of topsoil (ft)	0.5
	Average haul distance (ft)	500
	Surface grade (%)	0%
	Volume of Topsoil (cy)	807
	<u>Moving Materials (0% Grade)</u>	\$1.44
	Subtotal Topsoil Application Costs	\$2,326

**2015-16 RECLAMATION SURETY BOND ESTIMATE**  
**WDEQ Permit No. 687 Annual Report / NRC SUA-1548**  
**Gas Hills ISR Project - Cameco Resources**  
**Part III. Miscellaneous Surface Reclamation**

C.	Discing/Seeding	
	Surface Area (acres)	1.00
	<u>Discing/Seeding Unit Cost (\$/acre)</u>	\$330.00
	Subtotal Discing/Seeding Costs	\$660
	<b>Total Water Supply Wells and Access Road</b>	<b>\$5,747</b>
VI.	<b>Removal of Monitoring Stations</b>	
A.	Surface Water Monitoring Stations	3
	<u>Removal Unit Cost</u>	\$2,900.92
	Subtotal Surface Water Monitoring Stations	\$8,703
B.	Air Quality Monitoring Stations	5
	<u>Removal Unit Cost</u>	\$1,090.36
	Subtotal Air Quality Monitoring Stations	\$5,452
	<b>Total Removal of Monitoring Stations</b>	<b>\$14,155</b>
	<b>Total Miscellaneous Surface Reclamation</b>	<b>\$396,810.50</b>