

Appendix K2

Operating Cost Estimate

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - MITCHELL - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

PROCESS OPERATING COST SUMMARY

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMANPOWER			
OPERATING STAFF	34	\$4,338,000	\$0.091
OPERATING LABOUR	112	\$9,928,812	\$0.209
MAINTENANCE	80	\$8,216,018	\$0.173
SUB-TOTAL HUMANPOWER	226	\$22,482,829	\$0.474
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$72,570,466	\$1.529
REAGENT CONSUMABLES		\$103,990,537	\$2.192
SUPPLIES			
MAINTENANCE SUPPLIES		\$27,385,543	\$0.577
OPERATING SUPPLIES		\$2,892,321	\$0.061
SUB-TOTAL CONSUMABLES AND SUPPLIES		\$206,838,868	\$4.359
POWER SUPPLY			
POWER SUPPLY		\$51,784,437	\$1.091
SUB-TOTAL POWER		\$51,784,437	\$1.091
TOTAL (PROCESS)		\$281,106,135	\$5.924

Note: all the human power for on-site assaying, including mining and geological exploration assaying; the annual cost and unit cost excluding mining and geological exploration assaying.

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 Update On April/15/2012

PROCESS OPERATING COST SUMMARY

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$ /t milled)
DESCRIPTION			
GRINDING AND COPPER FLOTATION PLANT	147	\$186,750,353	\$3.936
TUNNEL	8	\$13,272,467	\$0.280
MOLYBDENUM FLOTATION PLANT	4	\$6,493,739	\$0.137
LEACH PLANT	51	\$36,873,015	\$0.777
CYANIDE SOLUTION/RESIDUE HANDLING	8	\$32,841,408	\$0.692
TAILING MANAGEMENT/RECLAIM WATER	8	\$4,490,700	\$0.095
WATER TREATMENT		\$384,452	\$0.008
TOTAL	226	\$281,106,135	\$5.924

*including mining and exploration assay

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
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SUMMARY - GRINDING AND COPPER FLOTATION CIRCUIT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING STAFF	23	\$2,754,000	\$0.058
OPERATING LABOUR	60	\$5,309,868	\$0.112
MAINTENANCE	64	\$6,709,962	\$0.141
SUB-TOTAL HUMANPOWER	147	\$14,773,830	\$0.311
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$71,892,502	\$1.515
REAGENT CONSUMABLES		\$39,482,414	\$0.832
SUPPLIES			
MAINTENANCE SUPPLIES		\$18,105,728	\$0.382
OPERATING SUPPLIES		\$1,187,372	\$0.025
POWER SUPPLY		\$41,308,507	\$0.871
SUB-TOTAL SUPPLIES		\$171,976,523	\$3.624
TOTAL	147	\$186,750,353	\$3.936

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - MITCHELL - HPGR

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GRINDING AND COPPER MILL MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Mill Superintendent	1	\$172,800	\$216,000	\$216,000
Chief Metallurgist	1	\$172,800	\$216,000	\$216,000
Plant Senior Metallurgist	1	\$134,400	\$168,000	\$168,000
Plant Metallurgist	1	\$115,200	\$144,000	\$144,000
General Foremen	1	\$134,400	\$168,000	\$168,000
Shift Foreman	4	\$110,400	\$138,000	\$552,000
Mill Clerk	2	\$57,600	\$72,000	\$144,000
SUB-TOTAL STAFF	11			\$1,608,000
HOURLY				
Crusher Operators-Mine Site	4	\$71,539	\$96,578	\$386,312
Grinding Operators -Mine Site				
Control Room Operators-Mine Site				
Helpers - Minesite	4	\$55,987	\$75,583	\$302,331
Control Room Operators - Plantsite	4	\$76,800	\$103,680	\$414,720
Crusher Operators - Plant Site	8	\$71,539	\$96,578	\$772,623
Grinding Operators - Plantsite	8	\$73,613	\$99,377	\$795,018
Flotation Operators Cu - Plantsite	4	\$73,613	\$99,377	\$397,509
Dewatering Operators - Plantsite	4	\$71,539	\$96,578	\$386,312
General Labours - Plantsite	12	\$55,987	\$75,583	\$906,993
Day Crew - Plantsite	6	\$55,987	\$75,583	\$453,496
SUB-TOTAL HOURLY	54			\$4,815,314
TOTAL MILL MANPOWER	65			\$6,423,314

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KERR-SULPHURETS-MITCHELL PROJECT
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MAIN (GRINDING AND Cu FLOTATION) MAINTENANCE HUMANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Maintenance Superintendent	1	\$134,400	\$168,000	\$168,000
Maintenance Planners	2	\$100,800	\$126,000	\$252,000
Maintenance Foremen	4	\$105,600	\$132,000	\$528,000
Electrical Superintendent	1	\$110,400	\$138,000	\$138,000
Instrumentation Supervisor	1	\$110,400	\$138,000	\$138,000
Maintenance Clerk	1	\$57,600	\$72,000	\$72,000
SUB-TOTAL STAFF	10			\$1,296,000
HOURLY				
Mechanics	12	\$81,907	\$110,575	\$1,326,897
Electrician	8	\$85,018	\$114,774	\$918,190
Electrician Apprentices	4	\$73,613	\$99,377	\$397,509
Instrument Technicians	4	\$87,091	\$117,573	\$470,292
Welders	4	\$81,907	\$110,575	\$442,299
Welder Apprentices	4	\$73,613	\$99,377	\$397,509
Crane / Equipment Operators	4	\$69,466	\$93,779	\$375,114
Tool Crib	2	\$66,355	\$89,580	\$179,159
Helpers	12	\$55,987	\$75,583	\$906,993
SUB-TOTAL HOURLY	54			\$5,413,962
TOTAL MILL MAINTENANCE	64			\$6,709,962

MET LAB

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Metallurgist	1	\$115,200	\$144,000	\$144,000
Lab Technicians	2	\$72,000	\$90,000	\$180,000
TOTAL MET LAB	3			\$324,000

ASSAY LAB*

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Chief Chemist	1	\$81,600	\$102,000	\$102,000
Assay Technicians - Senior	4	\$76,800	\$96,000	\$384,000
Assay Technicians - Junior	4	\$67,200	\$84,000	\$336,000
SUB-TOTAL STAFF	9			\$822,000
HOURLY				
Sample Prep Labours	6	\$61,056	\$82,426	\$494,554
SUB-TOTAL HOURLY	6			\$494,554
TOTAL ASSAY LAB (PROCESS+MINING)	15			\$1,316,554

*including mining and exploration assay

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SUMMARY - Main (Cu) CIRCUIT

POWER SUPPLY

Plant Power	kW	106,645
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
PLANT	878,157,041	\$0.047	41,308,507	\$0.871
TOTAL POWER SUPPLY *	878,157,041	\$0.047	41,308,507	\$0.871

* excluding tailing, leach, tunnel conveyors

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Crushing	allowance	\$1,608,779	\$0.034
Grinding	allowance	\$11,108,355	\$0.234
Flotation	allowance	\$3,456,875	\$0.073
Dewater	allowance	\$280,518	\$0.006
Reagents	allowance	\$96,000	\$0.002
Assaying	allowance	\$192,000	\$0.004
Miscellaneous Mill Supplies	allowance	\$288,000	\$0.006
Misc. Building Complex Supplies	allowance	\$1,075,200	\$0.023
SUB-TOTAL MTCE. SUPPLIES		\$18,105,728	\$0.382
OPERATING SUPPLIES			
Concentrate Filter Cloth		\$96,000	\$0.002
Screen Panels		\$251,136	\$0.005
Assay Laboratory Supplies (Mill+CIP+Mining)		\$240,000	\$0.005
Mill Light Vehicle and Rental Vehicle Operations		\$312,236	\$0.007
Miscellaneous		\$288,000	\$0.006
SUB-TOTAL OPERATING SUPPLIES		\$1,187,372	\$0.025
TOTAL SUPPLIES		\$19,293,100	\$0.407

MAJOR CONSUMABLE

SUPPLIES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
METAL CONSUMABLES							
LINERS							
Primary Crusher Liners	-	Calculation	-	ME	minesite	\$1,363,420.80	\$0.029
Cone Crusher Liners	-	Calculation	-	ME/Bradken	minesite	\$735,605.77	\$0.016
HPGR Mill Liners	-	Estimate	-	Koppers	minesite	\$11,253,053.95	\$0.237
PRIMARY Grinding - Ball Mill Liners	0.047	Calculation	\$3.169	ME/Bradken	minesite	\$7,120,240.63	\$0.150
Copper Regrind - Tower Mill Liners (Agitators)	Included in MTCE.	Calculation	-	Industry	minesite	\$1,420,241.81	\$0.030
Pyrite Regrind - Tower Mill Liners (Agitators)	Included in MTCE.	Calculation	-	Industry	minesite	\$1,590,908.70	\$0.034
BALLS							
PRIMARY Grinding - SAG Mill Balls	0.000	Calculation	-	Moly-Cop	minesite	\$0.00	\$0.000
PRIMARY Grinding - Ball Mill Balls	0.573	Calculation	\$1.314	Moly-Cop	minesite	\$35,721,411.42	\$0.753
Rougher Regrind Mill Balls	0.068	Calculation	\$1.901	Magotteaux	minesite	\$6,090,528.41	\$0.128
Scavenger Regrind Mill Balls	0.073	Calculation	\$1.901	Magotteaux	minesite	\$6,597,090.58	\$0.139
SUB-TOTAL METALS						\$71,892,502	\$1.515
REAGENT CONSUMABLES							
Lime	0.950	Test Reports	\$0.283	Graymont	minesite	\$12,772,240	\$0.269
PAX	0.040	Test Reports	\$2.352	Quadra	minesite	\$4,464,096	\$0.094
A208	0.048	Test Reports	\$4.330	Cytec	minesite	\$9,862,008	\$0.208
3418A	0.008	Test Reports	\$13.250	Cytec	minesite	\$5,029,700	\$0.106
Frothers (MIBC)	0.030	Test Reports	\$3.072	Quadra	minesite	\$4,372,992	\$0.092
Flocculant	0.009	Test Reports	\$4.848	Quadra	minesite	\$2,070,338	\$0.044
Anti-scalant	0.004	Estimate	\$4.800	Quadra	minesite	\$911,040	\$0.019
SUB-TOTAL METALS						\$39,482,414	\$0.832
TOTAL OPERATING SUPPLIES						\$111,374,916	\$2.347

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PROCESS OPERATING COSTS - MITCHELL - HPGR

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 Mill Availability 94%
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 Annual Throughput 47,450,000 t/y
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SUMMARY - Mo FLOTATION CIRCUIT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	4	\$397,509	\$0.008
SUB-TOTAL MANPOWER	4	\$397,509	\$0.008
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$677,964	\$0.014
REAGENT CONSUMABLES		\$3,766,341	\$0.079
SUPPLIES			
MAINTENANCE SUPPLIES		\$181,941	\$0.004
OPERATING SUPPLIES		\$24,000	\$0.0005
Mo CONC LEACH		\$1,298,816	\$0.0274
POWER SUPPLY		\$147,167	\$0.003
SUB-TOTAL SUPPLIES		\$6,096,230	\$0.128
TOTAL	4	\$6,493,739	\$0.137

*Included in flotation mill

Mo FLOTATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators - Flotation	4	\$73,613	\$99,377	\$397,509	\$0.008
Operators - Leach		included in leaching cost			
TOTAL OPERATING	4			\$397,509	\$0.008

POWER SUPPLY

Mo Circuit Power	KW	380
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Mo Circuit Power	3,128,560	\$0.047	\$147,167	\$0.003
TOTAL POWER SUPPLY	3,128,560	\$0.047	\$147,167	\$0.003

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Mo/Cu Separation Circuit	allowance	\$181,941	\$0.004
SUB-TOTAL MAINTENANCE SUPPLIES		\$181,941	\$0.004
OPERATING SUPPLIES			
Concentrate Filter Cloth	allowance	\$14,400	\$0.0003
Miscellaneous	allowance	\$9,600	\$0.0002
SUB-TOTAL OPERATING SUPPLIES		\$24,000	\$0.0005
TOTAL SUPPLIES		\$205,941	\$0.004

MAJOR CONSUMABLE

SUPPLIES	CONSUMPTION (kg/t milled)		UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
METAL CONSUMABLES							
LINERS							
Moly Concentrate Regrind Mill Agitator Liners (Tower Mill)	-	Calculation	-	Industry	minesite	\$18,255	\$0.0004
BALLS							
Moly Concentrate Regrind Mill Balls	0.007	Calculation	\$1,901	Magotteaux	minesite	\$659,709	\$0.014
SUB-TOTAL METALS						\$677,964	\$0.014
REAGENT CONSUMABLES							
Fuel Oil	0.020	Estimate	\$1,296	Industry	minesite	\$1,229,904	\$0.026
Sodium Sulphide	0.033	Estimate	\$1,440	Quardra	minesite	\$2,270,312	\$0.048
Sodium Cyanide	0.000	Estimate	\$3,408	Quardra	minesite	\$0	\$0.000
Sodium Silicate	0.001	Estimate	\$2,018	Quardra	minesite	\$78,133	\$0.002
Frothers (MIBC)	0.001	Estimate	\$3,07	Quardra	minesite	\$72,974	\$0.002
Flocculant	0.001	Estimate	\$4,848	Quardra	minesite	\$115,019	\$0.0024
SUB-TOTAL METALS						\$3,766,341	\$0.079
Mo CONCENTRATE LEACH							
Mo Concentrate Leach	allowance	Estimate				\$1,298,816	\$0.027
SUB-TOTAL Mo CONC LEACH						\$1,298,816	\$0.027
TOTAL OPERATING SUPPLIES						\$5,743,121	\$0.121

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - MITCHELL - HPGR

Daily tonnes milled 130,000 t/d
 Mill Availability 94%
 Annual operating days 365 days
 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
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SUMMARY - LEACH PLANT/REFINERY

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMAN POWER				
OPERATING STAFF	11	\$1,584,000	\$0.288	\$0.033
OPERATING LABOUR	24	\$2,155,507	\$0.391	\$0.045
MAINTENANCE	16	\$1,506,056	\$0.273	\$0.032
SUB-TOTAL MANPOWER	51	\$5,245,563	\$0.952	\$0.111
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$29,267,338	\$5.314	\$0.617
SUPPLIES				
MAINTENANCE SUPPLIES		\$1,351,495	\$0.245	\$0.028
OPERATING SUPPLIES		\$96,000	\$0.017	\$0.002
POWER SUPPLY		\$912,619	\$0.166	\$0.019
SUB-TOTAL SUPPLIES		\$31,627,453	\$5.743	\$0.667
TOTAL	51	\$36,873,015	\$6.695	\$0.777

*included in flotation mill

LEACH PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
STAFF						
Leach Plant Superintendent	1	\$134,400	\$168,000	\$168,000	\$0.031	\$0.004
Plant Senior Metallurgist	1	\$134,400	\$168,000	\$168,000	\$0.031	\$0.004
Plant Metallurgist	1	\$115,200	\$144,000	\$144,000	\$0.026	\$0.003
Operating Foreman	4	\$110,400	\$138,000	\$552,000	\$0.100	\$0.012
Maintenance Foremen	4	\$110,400	\$138,000	\$552,000	\$0.100	\$0.012
SUB-TOTAL STAFF	11			\$1,584,000	\$0.288	\$0.033
OPERATING - HOURLY						
Leach / CIL Operators	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Stripping / Regeneration	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Refinery Operators	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Security Officers	4	\$66,355	\$89,580	\$358,318	\$0.065	\$0.008
General Labours	8	\$55,987	\$75,583	\$604,662	\$0.110	\$0.013
SUB-TOTAL OPERATING	24			\$2,155,507	\$0.391	\$0.045
MAINTENANCE						
Mechanics	4	\$81,907	\$110,575	\$442,299	\$0.080	\$0.009
Electricians	4	\$85,018	\$114,774	\$459,095	\$0.083	\$0.010
Helpers	8	\$55,987	\$75,583	\$604,662	\$0.110	\$0.013
Others (Shared with flotation mill)						
SUB-TOTAL MAINTENANCE	16			\$1,506,056	\$0.273	\$0.032
TOTAL STAFFING	51			\$5,245,563	\$0.952	\$0.111

POWER SUPPLY

Leach Plant Power	kW	2,356
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SUPPLIES	KWH	UNIT COST (US\$/kWh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Leach Plant Power	19,400,910	\$0.047	\$912,619	\$0.166	\$0.019
TOTAL POWER SUPPLY	19,400,910	\$0.047	\$912,619	\$0.166	\$0.019

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES	TOTAL COST (US\$/year)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
CIL allowance	\$623,402	\$0.113	\$0.013
Acid Wash/Elution/EW/Carbon Re allowance	\$200,093	\$0.036	\$0.004
Miscellaneous Mill Supplies allowance	\$96,000	\$0.017	\$0.002
Misc. Building Complex Supplies allowance	\$432,000	\$0.078	\$0.009
SUB-TOTAL MAINTENANCE SUPPLIES	\$1,351,495	\$0.245	\$0.028
OPERATING SUPPLIES			
Miscellaneous	\$96,000	\$0.017	\$0.002
SUB-TOTAL OPERATING SUPPLIES	\$96,000	\$0.017	\$0.002
TOTAL SUPPLIES	\$1,447,495	\$0.263	\$0.031

MAJOR CONSUMABLE

REAGENT and CONSUMABLES	CONSUMPTION (kg/t milled, lit milled)	SOURCE	UNIT COST (US\$/kg, US\$/l)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Lime	0.091	Test Reports	\$0.283	LimeChem/Graymont	minesite	\$1,225,902	\$0.223	\$0.026
NaCN	0.161	Test Reports	\$3.408	Quardra	minesite	\$26,015,886	\$4.724	\$0.548
Carbon	0.002	Experience	\$3.600	Quardra	minesite	\$358,280	\$0.065	\$0.008
Hydrochloric Acid - Carbon	0.008	Test Reports	\$0.672	Quardra	minesite	\$255,091	\$0.046	\$0.005
Sodium Hydroxide - Carbon	0.004	Test Reports	\$0.360	Quardra	minesite	\$182,208	\$0.033	\$0.004
Flocculant	0.0025	Estimate	\$4.848	Quardra	minesite	\$575,094	\$0.104	\$0.012
Antiscalant	0.0020	Estimate	\$4.800	Quardra	minesite	\$455,520	\$0.083	\$0.010
Propane	0.009	Estimate	\$0.480	Other	minesite	\$199,358	\$0.036	\$0.004
SUB-TOTAL REAGENTS						\$29,267,338	\$5.314	\$0.617
TOTAL CONSUMABLE						\$29,267,338	\$5.314	\$0.617

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Daily tonnes milled 130,000 t/d
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 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
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SUMMARY - CYANIDE DESTRUCTION PLANT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMANPOWER				
OPERATING LABOUR	8	\$688,643	\$0.125	\$0.015
SUB-TOTAL HUMANPOWER	8	\$688,643	\$0.125	\$0.015
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$31,260,154	\$5.676	\$0.659
SUPPLIES				
MAINTENANCE SUPPLIES		\$387,294	\$0.070	\$0.008
OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
POWER SUPPLY		\$486,117	\$0.088	\$0.010
SUB-TOTAL SUPPLIES		\$32,152,766	\$5.838	\$0.678
TOTAL	8	\$32,841,408	\$5.963	\$0.692

*included in flotation mill

CYANIDE DESTRUCTION PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
OPERATING - HOURLY						
Operators	4	\$71,539	\$96,578	\$386,312	\$0.070	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.055	\$0.006
SUB-TOTAL OPERATING	8			\$688,643	\$0.125	\$0.015
TOTAL STAFFING	8			\$688,643	\$0.125	\$0.015

POWER SUPPLY

Cyanide Destruction Plant	KW	1,255
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Cyanide Destruction Plant	10,334,115	\$0.047	486,117	0.088	0.010
TOTAL POWER SUPPLY	10,334,115	\$0.047	486,117	0.088	0.010

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES		TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Cyanide Recovery and Destruction	allowance	\$320,094	\$0.058	\$0.0067
Miscellaneous Mill Supplies	allowance	\$19,200	\$0.003	\$0.0004
Misc. Building Complex Supplies	allowance	\$48,000	\$0.009	\$0.0010
SUB-TOTAL MAINTENANCE SUPPLIES		\$387,294	\$0.070	\$0.008
OPERATING SUPPLIES				
Miscellaneous		\$19,200	\$0.003	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
TOTAL SUPPLIES		\$406,494	\$0.074	\$0.009

MAJOR CONSUMABLE

REAGENT CONSUMABLES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
MBS (SO2) -CN Destruction	0.125	Test Reports	\$0.912	Quadra	minesite	\$5,409,300	\$0.982	\$0.114
CuSO4.5H2O -CN Destruction	0.010	Test Reports	\$3.168	Quadra	minesite	\$1,503,216	\$0.273	\$0.032
H2SO4 -CN Rec	0.447	Test Reports	\$0.816	Quadra	minesite	\$17,321,242	\$3.145	\$0.365
Sodium Hydroxide -CN Rec	0.119	Test Reports	\$0.960	Quadra	minesite	\$5,420,688	\$0.984	\$0.114
Flocculant	0.0050	Estimate	\$4.848	Quadra	minesite	\$1,150,188	\$0.209	\$0.024
Antiscalant	0.0020	Estimate	\$4.800	Quadra	minesite	\$455,520	\$0.083	\$0.010
SUB-TOTAL REAGENTS						\$31,260,154	\$5.676	\$0.659
TOTAL CONSUMABLE						\$31,260,154	\$5.676	\$0.659

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - MITCHELL - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - TUNNEL CONVEYING OPERATION

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	8	\$688,643	\$0.015
SUB-TOTAL MANPOWER	8	\$688,643	\$0.015
SUPPLIES			
SUPPLIES			
MAINTENANCE SUPPLIES		\$6,082,873	\$0.128
OPERATING SUPPLIES		\$114,371	\$0.002
POWER SUPPLY		\$6,386,580	\$0.135
SUB-TOTAL SUPPLIES		\$12,583,824	\$0.265
TOTAL	8	\$13,272,467	\$0.280

*included in flotation mill

TUNNEL CONVEYING OPERATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators	4	\$71,539	\$96,578	\$386,312	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.006
TOTAL OPERATING	8			\$688,643	\$0.015

POWER SUPPLY

Tunnel Conveying	kW	16,488
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Tunnel Conveying	135,769,141	\$0.047	6,386,580	0.135
TOTAL POWER SUPPLY	135,769,141	\$0.047	6,386,580	0.135

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Tunnel Conveying	allowance	\$6,082,873	\$0.128
SUB-TOTAL MAINTENANCE SUPPLIES		\$6,082,873	\$0.128
OPERATING SUPPLIES			
Miscellaneous	allowance	\$96,000	\$0.002
Light Vehicle	allowance	\$18,371	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$114,371	\$0.002
TOTAL SUPPLIES		\$6,197,244	\$0.131

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - MITCHELL - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - TAILING/RECLAIM WATER OPERATION

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	8	\$688,643	\$0.015
SUB-TOTAL MANPOWER	8	\$688,643	\$0.015
SUPPLIES			
MAINTENANCE SUPPLIES		\$1,149,972	\$0.024
OPERATING SUPPLIES		\$133,363	\$0.003
POWER SUPPLY		\$2,518,723	\$0.053
SUB-TOTAL SUPPLIES		\$3,802,057	\$0.080
TOTAL	8	\$4,490,700	\$0.095

*included in flotation mill

TAILINGS/RECLAIM WATER OPERATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators	4	\$71,539	\$96,578	\$386,312	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.006
TOTAL OPERATING	8			\$688,643	\$0.015

POWER SUPPLY

Tailing/Reclaim Water Power	kW	6,503
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Tailing/Reclaim Water Power	53,544,274	\$0.047	2,518,723	0.053
TOTAL POWER SUPPLY	53,544,274	\$0.047	2,518,723	0.053

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Tailing/Reclaim Water Power	allowance	\$1,149,972	\$0.024
SUB-TOTAL MAINTENANCE SUPPLIES		\$1,149,972	\$0.024
OPERATING SUPPLIES			
Miscellaneous	allowance	\$96,000	\$0.002
Light Vehicle	allowance	\$37,363	\$0.001
SUB-TOTAL OPERATING SUPPLIES		\$133,363	\$0.003
TOTAL SUPPLIES		\$1,283,335	\$0.027

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - MITCHELL

Daily tonnes milled 130,000 t/d
 Mill Availability 94%
 Annual operating days 365 days
 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
 Revision: A
 Updated On April/15/2012

SUMMARY - WATER TREATMENT PLANT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMANPOWER				
OPERATING LABOUR	0	\$0	\$0.000	\$0.000
SUB-TOTAL HUMANPOWER	0	\$0	\$0.000	\$0.000
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$214,288	\$0.039	\$0.005
SUPPLIES				
MAINTENANCE SUPPLIES		\$126,240	\$0.023	\$0.003
OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
POWER SUPPLY		\$24,724	\$0.004	\$0.001
SUB-TOTAL SUPPLIES		\$384,452	\$0.070	\$0.008
TOTAL	0	\$384,452	\$0.070	\$0.008

*included in flotation mill

WATER TREATMENT PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
OPERATING - HOURLY						
Operators	0	\$70,794	\$95,572	\$0	\$0.000	\$0.000
Helpers	0	\$55,404	\$74,795	\$0	\$0.000	\$0.000
SUB-TOTAL OPERATING	0			\$0	\$0.000	\$0.000
TOTAL STAFFING	0			\$0	\$0.000	\$0.000

POWER SUPPLY

Water Treatment Plant	kW	64
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Water Treatment Plant	525,600	\$0.047	24,724	0.004	0.001
TOTAL POWER SUPPLY	525,600	\$0.047	24,724	0.004	0.001

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES		TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Water Treatment Plant	allowance	\$107,040	\$0.019	\$0.0023
Miscellaneous Mill Supplies	allowance	\$9,600	\$0.002	\$0.0002
Misc. Building Complex Supplies	allowance	\$9,600	\$0.002	\$0.0002
SUB-TOTAL MAINTENANCE SUPPLIES		\$126,240	\$0.023	\$0.003
OPERATING SUPPLIES				
Miscellaneous		\$19,200	\$0.003	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
TOTAL SUPPLIES		\$145,440	\$0.026	\$0.003

MAJOR CONSUMABLE

REAGENT CONSUMABLES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Flocculant	0.0004	Estimate	\$4.848	Quadra	minesite	\$97,353	\$0.018	\$0.002
Carbon	0.0007	Estimate	\$3.600	Quadra	minesite	\$116,935	\$0.021	\$0.002
SUB-TOTAL REAGENTS						\$214,288	\$0.039	\$0.005
TOTAL CONSUMABLE						\$214,288	\$0.039	\$0.005

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

PROCESS OPERATING COST SUMMARY (HPGR)

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMANPOWER			
OPERATING STAFF	34	\$4,338,000	\$0.091
OPERATING LABOUR	120	\$10,617,454	\$0.224
MAINTENANCE	80	\$8,216,018	\$0.173
SUB-TOTAL HUMANPOWER	234	\$23,171,472	\$0.488
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$93,220,097	\$1.965
REAGENT CONSUMABLES		\$103,990,537	\$2.192
SUPPLIES			
MAINTENANCE SUPPLIES		\$28,767,700	\$0.606
OPERATING SUPPLIES		\$2,892,321	\$0.061
SUB-TOTAL CONSUMABLES AND SUPPLIES		\$228,870,656	\$4.823
POWER SUPPLY			
POWER SUPPLY		\$60,410,710	\$1.273
SUB-TOTAL POWER		\$60,410,710	\$1.273
TOTAL (PROCESS)		\$312,452,837	\$6.585

Note: all the human power for on-site assaying, including mining and geological exploration assaying; the annual cost and unit cost excluding mining and geological exploration assaying.

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Update On April/15/2012

PROCESS OPERATING COST SUMMARY

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$ /t milled)
DESCRIPTION			
GRINDING AND COPPER FLOTATION PLANT	155	\$217,904,700	\$4.592
TUNNEL	8	\$13,272,467	\$0.280
MOLYBDENUM FLOTATION PLANT	4	\$6,686,095	\$0.141
LEACH PLANT	51	\$36,873,015	\$0.777
CYANIDE SOLUTION/RESIDUE HANDLING	8	\$32,841,408	\$0.692
TAILING MANAGEMENT/RECLAIM WATER	8	\$4,490,700	\$0.095
WATER TREATMENT		\$384,452	\$0.008
TOTAL	234	\$312,452,837	\$6.585

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - GRINDING AND COPPER FLOTATION CIRCUIT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING STAFF	23	\$2,754,000	\$0.058
OPERATING LABOUR	68	\$5,998,510	\$0.126
MAINTENANCE	64	\$6,709,962	\$0.141
SUB-TOTAL HUMANPOWER	155	\$15,462,472	\$0.326
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$92,349,777	\$1.946
REAGENT CONSUMABLES		\$39,482,414	\$0.832
SUPPLIES			
MAINTENANCE SUPPLIES		\$19,487,885	\$0.411
OPERATING SUPPLIES		\$1,187,372	\$0.025
POWER SUPPLY		\$49,934,779	\$1.052
SUB-TOTAL SUPPLIES		\$202,442,228	\$4.266
TOTAL	155	\$217,904,700	\$4.592

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

GRINDING AND COPPER MILL MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Mill Superintendent	1	\$172,800	\$216,000	\$216,000
Chief Metallurgist	1	\$172,800	\$216,000	\$216,000
Plant Senior Metallurgist	1	\$134,400	\$168,000	\$168,000
Plant Metallurgist	1	\$115,200	\$144,000	\$144,000
General Foremen	1	\$134,400	\$168,000	\$168,000
Shift Foreman	4	\$110,400	\$138,000	\$552,000
Mill Clerk	2	\$57,600	\$72,000	\$144,000
SUB-TOTAL STAFF	11			\$1,608,000
HOURLY				
Crusher Operators-Mitchell Site	4	\$71,539	\$96,578	\$386,312
Grinding Operators - Sulphurets Site	4	\$71,539	\$96,578	\$386,312
Control Room Operators-Mine Site				
Helpers - Mitchell/Sulphurets Site	8	\$55,987	\$75,583	\$604,662
Control Room Operators - Plantsite	4	\$76,800	\$103,680	\$414,720
Crusher Operators - Plant Site	8	\$71,539	\$96,578	\$772,623
Grinding Operators - Plantsite	8	\$73,613	\$99,377	\$795,018
Flotation Operators Cu - Plantsite	4	\$73,613	\$99,377	\$397,509
Dewatering Operators - Plantsite	4	\$71,539	\$96,578	\$386,312
General Labours - Plantsite	12	\$55,987	\$75,583	\$906,993
Day Crew - Plantsite	6	\$55,987	\$75,583	\$453,496
SUB-TOTAL HOURLY	62			\$5,503,956
TOTAL MILL MANPOWER	73			\$7,111,956

SEABRIDGE GOLD INC**KERR-SULPHURETS-MITCHELL PROJECT****PROCESS OPERATING COSTS - SULPHURETS - HPGR**

Daily tonnes milled	130,000	
Mill Availability	94%	
Annual operating days	365	
Annual Throughput	47,450,000	t/y
Revision:	A	
Updated On	April/15/2012	

MAIN (GRINDING AND Cu FLOTATION) MAINTENANCE HUMANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Maintenance Superintendent	1	\$134,400	\$168,000	\$168,000
Maintenance Planners	2	\$100,800	\$126,000	\$252,000
Maintenance Foremen	4	\$105,600	\$132,000	\$528,000
Electrical Superintendent	1	\$110,400	\$138,000	\$138,000
Instrumentation Supervisor	1	\$110,400	\$138,000	\$138,000
Maintenance Clerk	1	\$57,600	\$72,000	\$72,000
SUB-TOTAL STAFF	10			\$1,296,000
HOURLY				
Mechanics	12	\$81,907	\$110,575	\$1,326,897
Electrician	8	\$85,018	\$114,774	\$918,190
Electrician Apprentices	4	\$73,613	\$99,377	\$397,509
Instrument Technicians	4	\$87,091	\$117,573	\$470,292
Welders	4	\$81,907	\$110,575	\$442,299
Welder Apprentices	4	\$73,613	\$99,377	\$397,509
Crane / Equipment Operators	4	\$69,466	\$93,779	\$375,114
Tool Crib	2	\$66,355	\$89,580	\$179,159
Helpers	12	\$55,987	\$75,583	\$906,993
SUB-TOTAL HOURLY	54			\$5,413,962
TOTAL MILL MAINTENANCE	64			\$6,709,962

MET LAB

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Metallurgist	1	\$115,200	\$144,000	\$144,000
Lab Technicians	2	\$72,000	\$90,000	\$180,000
TOTAL MET LAB	3			\$324,000

ASSAY LAB*

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Chief Chemist	1	\$81,600	\$102,000	\$102,000
Assay Technicians - Senior	4	\$76,800	\$96,000	\$384,000
Assay Technicians - Junior	4	\$67,200	\$84,000	\$336,000
SUB-TOTAL STAFF	9			\$822,000
HOURLY				
Sample Prep Labours	6	\$61,056	\$82,426	\$494,554
SUB-TOTAL HOURLY	6			\$494,554
TOTAL ASSAY LAB (PROCESS+MINING)	15			\$1,316,554

*including mining and exploration assay

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - Main (Cu) CIRCUIT

POWER SUPPLY

Plant Power	kW	128,915
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
PLANT	1,061,538,678	\$0.047	49,934,779	\$1.052
TOTAL POWER SUPPLY *	1,061,538,678	\$0.047	49,934,779	\$1.052

* excluding tailing, leach, tunnel conveyors

SUPPLIES

AREA	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES		
Crushing allowance	\$2,990,936	\$0.063
Grinding allowance	\$11,108,355	\$0.234
Flotation allowance	\$3,456,875	\$0.073
Dewater allowance	\$280,518	\$0.006
Reagents allowance	\$96,000	\$0.002
Assaying allowance	\$192,000	\$0.004
Miscellaneous Mill Supplies allowance	\$288,000	\$0.006
Misc. Building Complex Supplies allowance	\$1,075,200	\$0.023
SUB-TOTAL MTCE. SUPPLIES	\$19,487,885	\$0.411
OPERATING SUPPLIES		
Concentrate Filter Cloth	\$96,000	\$0.002
Screen Panels	\$251,136	\$0.005
Assay Laboratory Supplies (Mill+CIP+Mining)	\$240,000	\$0.005
Mill Light Vehicle and Rental Vehicle Operations	\$312,236	\$0.007
Miscellaneous	\$288,000	\$0.006
SUB-TOTAL OPERATING SUPPLIES	\$1,187,372	\$0.025
TOTAL SUPPLIES	\$20,675,257	\$0.436

MAJOR CONSUMABLE

SUPPLIES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
METAL CONSUMABLES							
LINERS							
Primary Crusher Liners	-	Calculation	-	ME	minesite	\$1,636,104.96	\$0.034
Cone Crusher Liners	-	Calculation	-	ME/Bradken	minesite	\$980,807.69	\$0.021
HPGR Mill Liners	-	Estimate	-	Koppers	minesite	\$14,875,281.62	\$0.313
PRIMARY Grinding - Ball Mill Liners	0.061	Calculation	\$3.169	ME/Bradken	minesite	\$9,217,297.80	\$0.194
Copper Regrind - Tower Mill Liners (Agitators)	Included in MTCE.	Calculation	-	Industry	minesite	\$1,420,241.81	\$0.030
Pyrite Regrind - Tower Mill Liners (Agitators)	Included in MTCE.	Calculation	-	Industry	minesite	\$1,590,908.70	\$0.034
BALLS							
PRIMARY Grinding - SAG Mill Balls	0.000	Calculation	-	Moly-Cop	minesite	\$0.00	\$0.000
PRIMARY Grinding - Ball Mill Balls	0.742	Calculation	\$1.314	Moly-Cop	minesite	\$46,242,101.09	\$0.975
Rougher Regrind Mill Balls	0.087	Calculation	\$1.901	Magotteaux	minesite	\$7,866,384.74	\$0.166
Scavenger Regrind Mill Balls	0.094	Calculation	\$1.901	Magotteaux	minesite	\$8,520,648.65	\$0.180
SUB-TOTAL METALS						\$92,349,777	\$1.946
REAGENT CONSUMABLES							
Lime	0.950	Test Reports	\$0.283	Graymont	minesite	\$12,772,240	\$0.269
PAX	0.040	Test Reports	\$2.352	Quadra	minesite	\$4,464,096	\$0.094
A208	0.048	Test Reports	\$4.330	Cytec	minesite	\$9,862,008	\$0.208
3418A	0.008	Test Reports	\$13.250	Cytec	minesite	\$5,029,700	\$0.106
Frothers (MIBC)	0.030	Test Reports	\$3.072	Quadra	minesite	\$4,372,992	\$0.092
Flocculant	0.009	Test Reports	\$4.848	Quadra	minesite	\$2,070,338	\$0.044
Anti-scalant	0.004	Estimate	\$4.800	Quadra	minesite	\$911,040	\$0.019
SUB-TOTAL METALS						\$39,482,414	\$0.832
TOTAL OPERATING SUPPLIES						\$131,832,191	\$2.778

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - Mo FLOTATION CIRCUIT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	4	\$397,509	\$0.008
SUB-TOTAL MANPOWER	4	\$397,509	\$0.008
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$870,320	\$0.018
REAGENT CONSUMABLES		\$3,766,341	\$0.079
SUPPLIES			
MAINTENANCE SUPPLIES		\$181,941	\$0.004
OPERATING SUPPLIES		\$24,000	\$0.001
Mo CONC LEACH		\$1,298,816	\$0.027
POWER SUPPLY		\$147,167	\$0.003
SUB-TOTAL SUPPLIES		\$6,288,585	\$0.133
TOTAL	4	\$6,686,095	\$0.141

*included in flotation mill

Mo FLOTATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators - Flotation	4	\$73,613	\$99,377	\$397,509	\$0.008
TOTAL OPERATING	4			\$397,509	\$0.008

POWER SUPPLY

Mo Circuit Power	KW	380
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Mo Circuit Power	3,128,560	\$0.047	\$147,167	\$0.003
TOTAL POWER SUPPLY	3,128,560	\$0.047	\$147,167	\$0.003

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Mo/Cu Separation Circuit	allowance	\$181,941	\$0.004
SUB-TOTAL MAINTENANCE SUPPLIES		\$181,941	\$0.004
OPERATING SUPPLIES			
Concentrate Filter Cloth	allowance	\$14,400	\$0.0003
Miscellaneous	allowance	\$9,600	\$0.0002
SUB-TOTAL OPERATING SUPPLIES		\$24,000	\$0.0005
TOTAL SUPPLIES		\$205,941	\$0.004

MAJOR CONSUMABLE

SUPPLIES	CONSUMPTION (kg/t milled)		UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
METAL CONSUMABLES							
LINERS							
Moly Concentrate Regrind Mill Agitator Liners (Tower Mill)	-	Calculation	-	Industry	minesite	\$18,255	\$0.0004
BALLS							
Moly Concentrate Regrind Mill Balls	0.009	Calculation	\$1,901	Magotteaux	minesite	\$852,065	\$0.018
SUB-TOTAL METALS						\$870,320	\$0.018
REAGENT CONSUMABLES							
Fuel Oil	0.020	Estimate	\$1.30	Industry	minesite	\$1,229,904	\$0.026
Sodium Sulphide	0.033	Estimate	\$1,440	Quardra	minesite	\$2,270,312	\$0.048
Sodium Cyanide	0.000	Estimate	\$3,408	Quardra	minesite	\$0	\$0.000
Sodium Silicate	0.001	Estimate	\$2,018	Quardra	minesite	\$78,133	\$0.002
Frothers (MIBC)	0.001	Estimate	\$3.07	Quardra	minesite	\$72,974	\$0.002
Flocculant	0.001	Estimate	\$4,848	Quardra	minesite	\$115,019	\$0.002
SUB-TOTAL METALS						\$3,766,341	\$0.079
Mo CONCENTRATE LEACH							
Mo Concentrate Leach	allowance	Estimate				\$1,298,816	\$0.027
SUB-TOTAL Mo CONC LEACH						\$1,298,816	\$0.027
TOTAL OPERATING SUPPLIES						\$5,935,477	\$0.125

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000 t/d
 Mill Availability 94%
 Annual operating days 365 days
 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
 Revision: A
 Updated On April/15/2012

SUMMARY - LEACH PLANT/REFINERY

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMAN POWER				
OPERATING STAFF	11	\$1,584,000	\$0.288	\$0.033
OPERATING LABOUR	24	\$2,155,507	\$0.391	\$0.045
MAINTENANCE	16	\$1,506,056	\$0.273	\$0.032
SUB-TOTAL MANPOWER	51	\$5,245,563	\$0.952	\$0.111
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$29,267,338	\$5.314	\$0.617
SUPPLIES				
MAINTENANCE SUPPLIES		\$1,351,495	\$0.245	\$0.028
OPERATING SUPPLIES		\$96,000	\$0.017	\$0.002
POWER SUPPLY		\$912,619	\$0.166	\$0.019
SUB-TOTAL SUPPLIES		\$31,627,453	\$5.743	\$0.667
TOTAL	51	\$36,873,015	\$6.695	\$0.777

*included in flotation mill

LEACH PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
STAFF						
Leach Plant Superintendent	1	\$134,400	\$168,000	\$168,000	\$0.031	\$0.004
Plant Senior Metallurgist	1	\$134,400	\$168,000	\$168,000	\$0.031	\$0.004
Plant Metallurgist	1	\$115,200	\$144,000	\$144,000	\$0.026	\$0.003
Operating Foreman	4	\$110,400	\$138,000	\$552,000	\$0.100	\$0.012
Maintenance Foremen	4	\$110,400	\$138,000	\$552,000	\$0.100	\$0.012
SUB-TOTAL STAFF	11			\$1,584,000	\$0.288	\$0.033
OPERATING - HOURLY						
Leach / CIL Operators	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Stripping / Regeneration	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Refinery Operators	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Security Officers	4	\$66,355	\$89,580	\$358,318	\$0.065	\$0.008
General Labours	8	\$55,987	\$75,583	\$604,662	\$0.110	\$0.013
SUB-TOTAL OPERATING	24			\$2,155,507	\$0.391	\$0.045
MAINTENANCE						
Mechanics	4	\$81,907	\$110,575	\$442,299	\$0.080	\$0.009
Electricians	4	\$85,018	\$114,774	\$459,095	\$0.083	\$0.010
Helpers	8	\$55,987	\$75,583	\$604,662	\$0.110	\$0.013
Others (Shared with flotation mill)						
SUB-TOTAL MAINTENANCE	16			\$1,506,056	\$0.273	\$0.032
TOTAL STAFFING	51			\$5,245,563	\$0.952	\$0.111

POWER SUPPLY

Leach Plant Power	kW	2,356
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SUPPLIES	KWH	UNIT COST (US\$/kWh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Leach Plant Power	19,400,910	\$0.047	\$912,619	\$0.166	\$0.019
TOTAL POWER SUPPLY	19,400,910	\$0.047	\$912,619	\$0.166	\$0.019

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES	TOTAL COST (US\$/year)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
CIL allowance	\$623,402	\$0.113	\$0.013
Acid Wash/Elution/EW/Carbon Re allowance	\$200,093	\$0.036	\$0.004
Miscellaneous Mill Supplies allowance	\$96,000	\$0.017	\$0.002
Misc. Building Complex Supplies allowance	\$432,000	\$0.078	\$0.009
SUB-TOTAL MAINTENANCE SUPPLIES	\$1,351,495	\$0.245	\$0.028
OPERATING SUPPLIES			
Miscellaneous	\$96,000	\$0.017	\$0.002
SUB-TOTAL OPERATING SUPPLIES	\$96,000	\$0.017	\$0.002
TOTAL SUPPLIES	\$1,447,495	\$0.263	\$0.031

MAJOR CONSUMABLE

REAGENT and CONSUMABLES	CONSUMPTION (kg/t milled, lit milled)	SOURCE	UNIT COST (US\$/kg, US\$/l)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Lime	0.091	Test Reports	\$0.283	LimeChem/Graymont	minesite	\$1,225,902	\$0.223	\$0.026
NaCN	0.161	Test Reports	\$3.408	Quardra	minesite	\$26,015,886	\$4.724	\$0.548
Carbon	0.002	Experience	\$3.600	Quardra	minesite	\$358,280	\$0.065	\$0.008
Hydrochloric Acid - Carbon	0.008	Test Reports	\$0.672	Quardra	minesite	\$255,091	\$0.046	\$0.005
Sodium Hydroxide -Carbon	0.004	Test Reports	\$0.360	Quardra	minesite	\$182,208	\$0.033	\$0.004
Flocculant	0.0025	Estimate	\$4.848	Quardra	minesite	\$575,094	\$0.104	\$0.012
Antiscalant	0.0020	Estimate	\$4.800	Quardra	minesite	\$455,520	\$0.083	\$0.010
Propane	0.009	Estimate	\$0.480	Other	minesite	\$199,358	\$0.036	\$0.004
SUB-TOTAL REAGENTS						\$29,267,338	\$5.314	\$0.617
TOTAL CONSUMABLE						\$29,267,338	\$5.314	\$0.617

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000 t/d
 Mill Availability 94%
 Annual operating days 365 days
 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
 Revision: A
 Updated On April/15/2012

SUMMARY - CYANIDE DESTRUCTION PLANT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMANPOWER				
OPERATING LABOUR	8	\$688,643	\$0.125	\$0.015
SUB-TOTAL HUMANPOWER	8	\$688,643	\$0.125	\$0.015
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$31,260,154	\$5.676	\$0.659
SUPPLIES				
MAINTENANCE SUPPLIES		\$387,294	\$0.070	\$0.008
OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
POWER SUPPLY		\$486,117	\$0.088	\$0.010
SUB-TOTAL SUPPLIES		\$32,152,766	\$5.838	\$0.678
TOTAL	8	\$32,841,408	\$5.963	\$0.692

*included in flotation mill

CYANIDE DESTRUCTION PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
OPERATING - HOURLY						
Operators	4	\$71,539	\$96,578	\$386,312	\$0.070	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.055	\$0.006
SUB-TOTAL OPERATING	8			\$688,643	\$0.125	\$0.015
TOTAL STAFFING	8			\$688,643	\$0.125	\$0.015

POWER SUPPLY

Cyanide Destruction Plant	kW	1,255
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Cyanide Destruction Plant	10,334,115	\$0.047	486,117	0.088	0.010
TOTAL POWER SUPPLY	10,334,115	\$0.047	486,117	0.088	0.010

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES		TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Cyanide Recovery and Destruction	allowance	\$320,094	\$0.058	\$0.0067
Miscellaneous Mill Supplies	allowance	\$19,200	\$0.003	\$0.0004
Misc. Building Complex Supplies	allowance	\$48,000	\$0.009	\$0.0010
SUB-TOTAL MAINTENANCE SUPPLIES		\$387,294	\$0.070	\$0.008
OPERATING SUPPLIES				
Miscellaneous		\$19,200	\$0.003	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
TOTAL SUPPLIES		\$406,494	\$0.074	\$0.009

MAJOR CONSUMABLE

REAGENT CONSUMABLES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
MBS (SO2) -CN Destruction	0.125	Test Reports	\$0.912	Quardra	minesite	\$5,409,300	\$0.982	\$0.114
CuSO4.5H2O -CN Destruction	0.010	Test Reports	\$3.168	Quardra	minesite	\$1,503,216	\$0.273	\$0.032
H2SO4 -CN Rec	0.447	Test Reports	\$0.816	Quardra	minesite	\$17,321,242	\$3.145	\$0.365
Sodium Hydroxide -CN Rec	0.119	Test Reports	\$0.960	Quardra	minesite	\$5,420,688	\$0.984	\$0.114
Flocculant	0.0050	Estimate	\$4.848	Quardra	minesite	\$1,150,188	\$0.209	\$0.024
Antiscalant	0.0020	Estimate	\$4.800	Quardra	minesite	\$455,520	\$0.083	\$0.010
SUB-TOTAL REAGENTS						\$31,260,154	\$5.676	\$0.659
TOTAL CONSUMABLE						\$31,260,154	\$5.676	\$0.659

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - TUNNEL CONVEYING OPERATION

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	8	\$688,643	\$0.015
SUB-TOTAL MANPOWER	8	\$688,643	\$0.015
SUPPLIES			
SUPPLIES			
MAINTENANCE SUPPLIES		\$6,082,873	\$0.128
OPERATING SUPPLIES		\$114,371	\$0.002
POWER SUPPLY		\$6,386,580	\$0.135
SUB-TOTAL SUPPLIES		\$12,583,824	\$0.265
TOTAL	8	\$13,272,467	\$0.280

*included in flotation mill

TUNNEL CONVEYING OPERATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators	4	\$71,539	\$96,578	\$386,312	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.006
TOTAL OPERATING	8			\$688,643	\$0.015

POWER SUPPLY

Tunnel Conveying	kW	16,488
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Tunnel Conveying	135,769,141	\$0.047	6,386,580	0.135
TOTAL POWER SUPPLY	135,769,141	\$0.047	6,386,580	0.135

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Tunnel Conveying	allowance	\$6,082,873	\$0.128
SUB-TOTAL MAINTENANCE SUPPLIES		\$6,082,873	\$0.128
OPERATING SUPPLIES			
Miscellaneous	allowance	\$96,000	\$0.002
Light Vehicle	allowance	\$18,371	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$114,371	\$0.002
TOTAL SUPPLIES		\$6,197,244	\$0.131

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - TAILING/RECLAIM WATER OPERATION

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	8	\$688,643	\$0.015
SUB-TOTAL MANPOWER	8	\$688,643	\$0.015
SUPPLIES			
MAINTENANCE SUPPLIES		\$1,149,972	\$0.024
OPERATING SUPPLIES		\$133,363	\$0.003
POWER SUPPLY		\$2,518,723	\$0.053
SUB-TOTAL SUPPLIES		\$3,802,057	\$0.080
TOTAL	8	\$4,490,700	\$0.095

*included in flotation mill

TAILINGS/RECLAIM WATER OPERATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators	4	\$71,539	\$96,578	\$386,312	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.006
TOTAL OPERATING	8			\$688,643	\$0.015

POWER SUPPLY

Tailing/Reclaim Water Power	kW	6,503
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Tailing/Reclaim Water Power	53,544,274	\$0.047	2,518,723	0.053
TOTAL POWER SUPPLY	53,544,274	\$0.047	2,518,723	0.053

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Tailing/Reclaim Water Power	allowance	\$1,149,972	\$0.024
SUB-TOTAL MAINTENANCE SUPPLIES		\$1,149,972	\$0.024
OPERATING SUPPLIES			
Miscellaneous	allowance	\$96,000	\$0.002
Light Vehicle	allowance	\$37,363	\$0.001
SUB-TOTAL OPERATING SUPPLIES		\$133,363	\$0.003
TOTAL SUPPLIES		\$1,283,335	\$0.027

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - SULPHURETS - HPGR

Daily tonnes milled 130,000 t/d
 Mill Availability 94%
 Annual operating days 365 days
 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
 Revision: A
 Updated On April/15/2012

SUMMARY - WATER TREATMENT PLANT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMANPOWER				
OPERATING LABOUR	0	\$0	\$0.000	\$0.000
SUB-TOTAL HUMANPOWER	0	\$0	\$0.000	\$0.000
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$214,288	\$0.039	\$0.005
SUPPLIES				
MAINTENANCE SUPPLIES		\$126,240	\$0.023	\$0.003
OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
POWER SUPPLY		\$24,724	\$0.004	\$0.001
SUB-TOTAL SUPPLIES		\$384,452	\$0.070	\$0.008
TOTAL	0	\$384,452	\$0.070	\$0.008

*included in flotation mill

WATER TREATMENT PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
OPERATING - HOURLY						
Operators	0	\$70,794	\$95,572	\$0	\$0.000	\$0.000
Helpers	0	\$55,404	\$74,795	\$0	\$0.000	\$0.000
SUB-TOTAL OPERATING	0			\$0	\$0.000	\$0.000
TOTAL STAFFING	0			\$0	\$0.000	\$0.000

POWER SUPPLY

Water Treatment Plant	kW	64
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Water Treatment Plant	525,600	\$0.047	24,724	0.004	0.001
TOTAL POWER SUPPLY	525,600	\$0.047	24,724	0.004	0.001

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES		TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Water Treatment Plant	allowance	\$107,040	\$0.019	\$0.0023
Miscellaneous Mill Supplies	allowance	\$9,600	\$0.002	\$0.0002
Misc. Building Complex Supplies	allowance	\$9,600	\$0.002	\$0.0002
SUB-TOTAL MAINTENANCE SUPPLIES		\$126,240	\$0.023	\$0.003
OPERATING SUPPLIES				
Miscellaneous		\$19,200	\$0.003	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
TOTAL SUPPLIES		\$145,440	\$0.026	\$0.003

MAJOR CONSUMABLE

REAGENT CONSUMABLES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Flocculant	0.0004	Estimate	\$4.848	Quadra	minesite	\$97,353	\$0.018	\$0.002
Carbon	0.0007	Estimate	\$3.600	Quadra	minesite	\$116,935	\$0.021	\$0.002
SUB-TOTAL REAGENTS						\$214,288	\$0.039	\$0.005
TOTAL CONSUMABLE						\$214,288	\$0.039	\$0.005

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

PROCESS OPERATING COST SUMMARY (HPGR)

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMANPOWER			
OPERATING STAFF	34	\$4,338,000	\$0.091
OPERATING LABOUR	120	\$10,617,454	\$0.224
MAINTENANCE	80	\$8,216,018	\$0.173
SUB-TOTAL HUMANPOWER	234	\$23,171,472	\$0.488
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$70,605,172	\$1.488
REAGENT CONSUMABLES		\$103,990,537	\$2.192
SUPPLIES			
MAINTENANCE SUPPLIES		\$31,819,404	\$0.671
OPERATING SUPPLIES		\$2,892,321	\$0.061
SUB-TOTAL CONSUMABLES AND SUPPLIES		\$209,307,434	\$4.411
POWER SUPPLY			
POWER SUPPLY		\$52,053,664	\$1.097
SUB-TOTAL POWER		\$52,053,664	\$1.097
TOTAL (PROCESS)		\$284,532,571	\$5.996

Note: all the human power for on-site assaying, including mining and geological exploration assaying; the annual cost and unit cost excluding mining and geological exploration assaying.

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
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 Revision: A
 Update On April/15/2012

PROCESS OPERATING COST SUMMARY

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$ /t milled)
DESCRIPTION			
GRINDING AND COPPER FLOTATION PLANT	155	\$190,203,901	\$4.009
TUNNEL	8	\$13,272,467	\$0.280
MOLYBDENUM FLOTATION PLANT	4	\$6,466,627	\$0.136
LEACH PLANT	51	\$36,873,015	\$0.777
CYANIDE SOLUTION/RESIDUE HANDLING	8	\$32,841,408	\$0.692
TAILING MANAGEMENT/RECLAIM WATER	8	\$4,490,700	\$0.095
WATER TREATMENT		\$384,452	\$0.008
TOTAL	234	\$284,532,571	\$5.996

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - GRINDING AND COPPER FLOTATION CIRCUIT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING STAFF	23	\$2,754,000	\$0.058
OPERATING LABOUR	68	\$5,998,510	\$0.126
MAINTENANCE	64	\$6,709,962	\$0.141
SUB-TOTAL HUMANPOWER	155	\$15,462,472	\$0.326
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$69,954,319	\$1.474
REAGENT CONSUMABLES		\$39,482,414	\$0.832
SUPPLIES			
MAINTENANCE SUPPLIES		\$22,539,589	\$0.475
OPERATING SUPPLIES		\$1,187,372	\$0.025
POWER SUPPLY		\$41,577,734	\$0.876
SUB-TOTAL SUPPLIES		\$174,741,428	\$3.683
TOTAL	155	\$190,203,901	\$4.009

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

GRINDING AND COPPER MILL MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Mill Superintendent	1	\$172,800	\$216,000	\$216,000
Chief Metallurgist	1	\$172,800	\$216,000	\$216,000
Plant Senior Metallurgist	1	\$134,400	\$168,000	\$168,000
Plant Metallurgist	1	\$115,200	\$144,000	\$144,000
General Foremen	1	\$134,400	\$168,000	\$168,000
Shift Foreman	4	\$110,400	\$138,000	\$552,000
Mill Clerk	2	\$57,600	\$72,000	\$144,000
SUB-TOTAL STAFF	11			\$1,608,000
HOURLY				
Crusher Operators-Mitchell Site	4	\$71,539	\$96,578	\$386,312
Crusher Operators-Kerr Site	4	\$71,539	\$96,578	\$386,312
Control Room Operators-Mine Site				
Helpers - Mitchell/Kerr Site	8	\$55,987	\$75,583	\$604,662
Control Room Operators - Plantsite	4	\$76,800	\$103,680	\$414,720
Crusher Operators - Plant Site	8	\$71,539	\$96,578	\$772,623
Grinding Operators - Plantsite	8	\$73,613	\$99,377	\$795,018
Flotation Operators Cu - Plantsite	4	\$73,613	\$99,377	\$397,509
Dewatering Operators - Plantsite	4	\$71,539	\$96,578	\$386,312
General Labours - Plantsite	12	\$55,987	\$75,583	\$906,993
Day Crew - Plantsite	6	\$55,987	\$75,583	\$453,496
SUB-TOTAL HOURLY	62			\$5,503,956
TOTAL MILL MANPOWER	73			\$7,111,956

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 120,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

MAIN (GRINDING AND Cu FLOTATION) MAINTENANCE HUMANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Maintenance Superintendent	1	\$134,400	\$168,000	\$168,000
Maintenance Planners	2	\$100,800	\$126,000	\$252,000
Maintenance Foremen	4	\$105,600	\$132,000	\$528,000
Electrical Superintendent	1	\$110,400	\$138,000	\$138,000
Instrumentation Supervisor	1	\$110,400	\$138,000	\$138,000
Maintenance Clerk	1	\$57,600	\$72,000	\$72,000
SUB-TOTAL STAFF	10			\$1,296,000
HOURLY				
Mechanics	12	\$81,907	\$110,575	\$1,326,897
Electrician	8	\$85,018	\$114,774	\$918,190
Electrician Apprentices	4	\$73,613	\$99,377	\$397,509
Instrument Technicians	4	\$87,091	\$117,573	\$470,292
Welders	4	\$81,907	\$110,575	\$442,299
Welder Apprentices	4	\$73,613	\$99,377	\$397,509
Crane / Equipment Operators	4	\$69,466	\$93,779	\$375,114
Tool Crib	2	\$66,355	\$89,580	\$179,159
Helpers	12	\$55,987	\$75,583	\$906,993
SUB-TOTAL HOURLY	54			\$5,413,962
TOTAL MILL MAINTENANCE	64			\$6,709,962

MET LAB

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Metallurgist	1	\$115,200	\$144,000	\$144,000
Lab Technicians	2	\$72,000	\$90,000	\$180,000
TOTAL MET LAB	3			\$324,000

ASSAY LAB*

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)
STAFF				
Chief Chemist	1	\$81,600	\$102,000	\$102,000
Assay Technicians - Senior	4	\$76,800	\$96,000	\$384,000
Assay Technicians - Junior	4	\$67,200	\$84,000	\$336,000
SUB-TOTAL STAFF	9			\$822,000
HOURLY				
Sample Prep Labours	6	\$61,056	\$82,426	\$494,554
SUB-TOTAL HOURLY	6			\$494,554
TOTAL ASSAY LAB (PROCESS+MINING)	15			\$1,316,554

*including mining and exploration assay

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000
Mill Availability 94%
Annual operating days 365
Annual Throughput 47,450,000 t/y
Revision: A
Updated On April/15/2012

SUMMARY - Main (Cu) CIRCUIT

POWER SUPPLY

Plant Power	kW	107,340
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
PLANT	883,880,403	\$0.047	41,577,734	\$0.876
TOTAL POWER SUPPLY *	883,880,403	\$0.047	41,577,734	\$0.876

* excluding tailing, leach, tunnel conveyors

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Crushing	allowance	\$6,042,640	\$0.127
Grinding	allowance	\$11,108,355	\$0.234
Flotation	allowance	\$3,456,875	\$0.073
Dewater	allowance	\$280,518	\$0.006
Reagents	allowance	\$96,000	\$0.002
Assaying	allowance	\$192,000	\$0.004
Miscellaneous Mill Supplies	allowance	\$288,000	\$0.006
Misc. Building Complex Supplies	allowance	\$1,075,200	\$0.023
SUB-TOTAL MTCE. SUPPLIES		\$22,539,589	\$0.475
OPERATING SUPPLIES			
Concentrate Filter Cloth		\$96,000	\$0.002
Screen Panels		\$251,136	\$0.005
Assay Laboratory Supplies (Mill+CIP+Mining)		\$240,000	\$0.005
Mill Light Vehicle and Rental Vehicle Operations		\$312,236	\$0.007
Miscellaneous		\$288,000	\$0.006
SUB-TOTAL OPERATING SUPPLIES		\$1,187,372	\$0.025
TOTAL SUPPLIES		\$23,726,961	\$0.500

MAJOR CONSUMABLE

SUPPLIES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
METAL CONSUMABLES							
LINERS							
Primary Crusher Liners	-	Calculation	-	ME	minesite	\$1,363,420.80	\$0.029
Cone Crusher Liners	-	Calculation	-	ME/Bradken	minesite	\$653,871.79	\$0.014
HPGR Mill Liners	-	Estimate	-	Koppers	minesite	\$10,975,332.17	\$0.231
PRIMARY Grinding - Ball Mill Liners	0.046	Calculation	\$3.169	ME/Bradken	minesite	\$6,944,515.36	\$0.146
Copper Re grind - Tower Mill Liners (Agitators)	Included in MTCE.	Calculation	-	Industry	minesite	\$1,420,241.81	\$0.030
Pyrite Re grind - Tower Mill Liners (Agitators)	Included in MTCE.	Calculation	-	Industry	minesite	\$1,590,908.70	\$0.034
BALLS							
PRIMARY Grinding - SAG Mill Balls	0.000	Calculation	-	Moly-Cop	minesite	\$0.00	\$0.000
PRIMARY Grinding - Ball Mill Balls	0.559	Calculation	\$1.314	Moly-Cop	minesite	\$34,839,818.38	\$0.734
Rougher Re grind Mill Balls	0.065	Calculation	\$1.901	Magotteaux	minesite	\$5,840,232.72	\$0.123
Scavenger Re grind Mill Balls	0.070	Calculation	\$1.901	Magotteaux	minesite	\$6,325,977.27	\$0.133
SUB-TOTAL METALS						\$69,954,319	\$1.474
REAGENT CONSUMABLES							
Lime	0.950	Test Reports	\$0.283	Graymont	minesite	\$12,772,240	\$0.269
PAX	0.040	Test Reports	\$2.352	Quadra	minesite	\$4,464,096	\$0.094
A208	0.048	Test Reports	\$4.330	Cytec	minesite	\$9,862,008	\$0.208
3418A	0.008	Test Reports	\$13.250	Cytec	minesite	\$5,029,700	\$0.106
Frothers (MIBC)	0.030	Test Reports	\$3.072	Quadra	minesite	\$4,372,992	\$0.092
Flocculant	0.009	Test Reports	\$4.848	Quadra	minesite	\$2,070,338	\$0.044
Anti-scalant	0.004	Estimate	\$4.800	Quadra	minesite	\$911,040	\$0.019
SUB-TOTAL METALS						\$39,482,414	\$0.832
TOTAL OPERATING SUPPLIES						\$109,436,733	\$2.306

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - Mo FLOTATION CIRCUIT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	4	\$397,509	\$0.008
SUB-TOTAL MANPOWER	4	\$397,509	\$0.008
SUPPLIES			
MAJOR CONSUMABLES			
METAL CONSUMABLES		\$650,853	\$0.014
REAGENT CONSUMABLES		\$3,766,341	\$0.079
SUPPLIES			
MAINTENANCE SUPPLIES		\$181,941	\$0.004
OPERATING SUPPLIES		\$24,000	\$0.0005
Mo CONC LEACH		\$1,298,816	\$0.027
POWER SUPPLY		\$147,167	\$0.003
SUB-TOTAL SUPPLIES		\$6,069,118	\$0.128
TOTAL	4	\$6,466,627	\$0.136

*Included in flotation mill

Mo FLOTATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators - Flotation	4	\$73,613	\$99,377	\$397,509	\$0.008
Operators - Leach		included in leaching cost			
TOTAL OPERATING	4			\$397,509	\$0.008

POWER SUPPLY

Mo Circuit Power	KW	380
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Mo Circuit Power	3,128,560	\$0.047	\$147,167	\$0.003
TOTAL POWER SUPPLY	3,128,560	\$0.047	\$147,167	\$0.003

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Mo/Cu Separation Circuit	allowance	\$181,941	\$0.004
SUB-TOTAL MAINTENANCE SUPPLIES		\$181,941	\$0.004
OPERATING SUPPLIES			
Concentrate Filter Cloth	allowance	\$14,400	\$0.0003
Miscellaneous	allowance	\$9,600	\$0.0002
SUB-TOTAL OPERATING SUPPLIES		\$24,000	\$0.0005
TOTAL SUPPLIES		\$205,941	\$0.004

MAJOR CONSUMABLE

SUPPLIES	CONSUMPTION (kg/t milled)		UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
METAL CONSUMABLES							
LINERS							
Moly Concentrate Regrind Mill Agitator Liners (Tower Mill)	-	Calculation	-	Industry	minesite	\$18,255	\$0.0004
BALLS							
Moly Concentrate Regrind Mill Balls	0.007	Calculation	\$1,901	Magotteaux	minesite	\$632,598	\$0.013
SUB-TOTAL METALS						\$650,853	\$0.014
REAGENT CONSUMABLES							
Fuel Oil	0.020	Estimate	\$1,296	Industry	minesite	\$1,229,904	\$0.026
Sodium Sulphide	0.033	Estimate	\$1,440	Quardra	minesite	\$2,270,312	\$0.048
Sodium Cyanide	0.000	Estimate	\$3,408	Quardra	minesite	\$0	\$0.000
Sodium Silicate	0.001	Estimate	\$2,018	Quardra	minesite	\$78,133	\$0.002
Frothers (MIBC)	0.001	Estimate	\$3,07	Quardra	minesite	\$72,974	\$0.002
Flocculant	0.001	Estimate	\$4,848	Quardra	minesite	\$115,019	\$0.0024
SUB-TOTAL METALS						\$3,766,341	\$0.079
Mo CONCENTRATE LEACH							
Mo Concentrate Leach	allowance	Estimate				\$1,298,816	\$0.027
SUB-TOTAL Mo CONC LEACH						\$1,298,816	\$0.027
TOTAL OPERATING SUPPLIES						\$5,716,010	\$0.120

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000 t/d
 Mill Availability 94%
 Annual operating days 365 days
 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
 Revision: A
 Updated On April/15/2012

SUMMARY - LEACH PLANT/REFINERY

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMAN POWER				
OPERATING STAFF	11	\$1,584,000	\$0.288	\$0.033
OPERATING LABOUR	24	\$2,155,507	\$0.391	\$0.045
MAINTENANCE	16	\$1,506,056	\$0.273	\$0.032
SUB-TOTAL MANPOWER	51	\$5,245,563	\$0.952	\$0.111
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$29,267,338	\$5.314	\$0.617
SUPPLIES				
MAINTENANCE SUPPLIES		\$1,351,495	\$0.245	\$0.028
OPERATING SUPPLIES		\$96,000	\$0.017	\$0.002
POWER SUPPLY		\$912,619	\$0.166	\$0.019
SUB-TOTAL SUPPLIES		\$31,627,453	\$5.743	\$0.667
TOTAL	51	\$36,873,015	\$6.695	\$0.777

*included in flotation mill

LEACH PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
STAFF						
Leach Plant Superintendent	1	\$134,400	\$168,000	\$168,000	\$0.031	\$0.004
Plant Senior Metallurgist	1	\$134,400	\$168,000	\$168,000	\$0.031	\$0.004
Plant Metallurgist	1	\$115,200	\$144,000	\$144,000	\$0.026	\$0.003
Operating Foreman	4	\$110,400	\$138,000	\$552,000	\$0.100	\$0.012
Maintenance Foremen	4	\$110,400	\$138,000	\$552,000	\$0.100	\$0.012
SUB-TOTAL STAFF	11			\$1,584,000	\$0.288	\$0.033
OPERATING - HOURLY						
Leach / CIL Operators	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Stripping / Regeneration	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Refinery Operators	4	\$73,613	\$99,377	\$397,509	\$0.072	\$0.008
Security Officers	4	\$66,355	\$89,580	\$358,318	\$0.065	\$0.008
General Labours	8	\$55,987	\$75,583	\$604,662	\$0.110	\$0.013
SUB-TOTAL OPERATING	24			\$2,155,507	\$0.391	\$0.045
MAINTENANCE						
Mechanics	4	\$81,907	\$110,575	\$442,299	\$0.080	\$0.009
Electricians	4	\$85,018	\$114,774	\$459,095	\$0.083	\$0.010
Helpers	8	\$55,987	\$75,583	\$604,662	\$0.110	\$0.013
Others (Shared with flotation mill)						
SUB-TOTAL MAINTENANCE	16			\$1,506,056	\$0.273	\$0.032
TOTAL STAFFING	51			\$5,245,563	\$0.952	\$0.111

POWER SUPPLY

Leach Plant Power	kW	2,356
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SUPPLIES	KWH	UNIT COST (US\$/kWh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Leach Plant Power	19,400,910	\$0.047	\$912,619	\$0.166	\$0.019
TOTAL POWER SUPPLY	19,400,910	\$0.047	\$912,619	\$0.166	\$0.019

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES	TOTAL COST (US\$/year)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
CIL allowance	\$623,402	\$0.113	\$0.013
Acid Wash/Elution/EW/Carbon Re allowance	\$200,093	\$0.036	\$0.004
Miscellaneous Mill Supplies allowance	\$96,000	\$0.017	\$0.002
Misc. Building Complex Supplies allowance	\$432,000	\$0.078	\$0.009
SUB-TOTAL MAINTENANCE SUPPLIES	\$1,351,495	\$0.245	\$0.028
OPERATING SUPPLIES			
Miscellaneous	\$96,000	\$0.017	\$0.002
SUB-TOTAL OPERATING SUPPLIES	\$96,000	\$0.017	\$0.002
TOTAL SUPPLIES	\$1,447,495	\$0.263	\$0.031

MAJOR CONSUMABLE

REAGENT and CONSUMABLES	CONSUMPTION (kg/t milled, lit milled)	SOURCE	UNIT COST (US\$/kg, US\$/l)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Lime	0.091	Test Reports	\$0.283	LimeChem/Graymont	minesite	\$1,225,902	\$0.223	\$0.026
NaCN	0.161	Test Reports	\$3.408	Quardra	minesite	\$26,015,886	\$4.724	\$0.548
Carbon	0.002	Experience	\$3.600	Quardra	minesite	\$358,280	\$0.065	\$0.008
Hydrochloric Acid - Carbon	0.008	Test Reports	\$0.672	Quardra	minesite	\$255,091	\$0.046	\$0.005
Sodium Hydroxide -Carbon	0.004	Test Reports	\$0.360	Quardra	minesite	\$182,208	\$0.033	\$0.004
Flocculant	0.0025	Estimate	\$4.848	Quardra	minesite	\$575,094	\$0.104	\$0.012
Antiscalant	0.0020	Estimate	\$4.800	Quardra	minesite	\$455,520	\$0.083	\$0.010
Propane	0.009	Estimate	\$0.480	Other	minesite	\$199,358	\$0.036	\$0.004
SUB-TOTAL REAGENTS						\$29,267,338	\$5.314	\$0.617
TOTAL CONSUMABLE						\$29,267,338	\$5.314	\$0.617

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000 t/d
 Mill Availability 94%
 Annual operating days 365 days
 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
 Revision: A
 Updated On April/15/2012

SUMMARY - CYANIDE DESTRUCTION PLANT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMANPOWER				
OPERATING LABOUR	8	\$688,643	\$0.125	\$0.015
SUB-TOTAL HUMANPOWER	8	\$688,643	\$0.125	\$0.015
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$31,260,154	\$5.676	\$0.659
SUPPLIES				
MAINTENANCE SUPPLIES		\$387,294	\$0.070	\$0.008
OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
POWER SUPPLY		\$486,117	\$0.088	\$0.010
SUB-TOTAL SUPPLIES		\$32,152,766	\$5.838	\$0.678
TOTAL	8	\$32,841,408	\$5.963	\$0.692

*included in flotation mill

CYANIDE DESTRUCTION PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
OPERATING - HOURLY						
Operators	4	\$71,539	\$96,578	\$386,312	\$0.070	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.055	\$0.006
SUB-TOTAL OPERATING	8			\$688,643	\$0.125	\$0.015
TOTAL STAFFING	8			\$688,643	\$0.125	\$0.015

POWER SUPPLY

Cyanide Destruction Plant	KW	1,255
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Cyanide Destruction Plant	10,334,115	\$0.047	486,117	0.088	0.010
TOTAL POWER SUPPLY	10,334,115	\$0.047	486,117	0.088	0.010

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES		TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Cyanide Recovery and Destruction	allowance	\$320,094	\$0.058	\$0.0067
Miscellaneous Mill Supplies	allowance	\$19,200	\$0.003	\$0.0004
Misc. Building Complex Supplies	allowance	\$48,000	\$0.009	\$0.0010
SUB-TOTAL MAINTENANCE SUPPLIES		\$387,294	\$0.070	\$0.008
OPERATING SUPPLIES				
Miscellaneous		\$19,200	\$0.003	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
TOTAL SUPPLIES		\$406,494	\$0.074	\$0.009

MAJOR CONSUMABLE

REAGENT CONSUMABLES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
MBS (SO2) -CN Destruction	0.125	Test Reports	\$0.912	Quadra	minesite	\$5,409,300	\$0.982	\$0.114
CuSO4.5H2O -CN Destruction	0.010	Test Reports	\$3.168	Quadra	minesite	\$1,503,216	\$0.273	\$0.032
H2SO4 -CN Rec	0.447	Test Reports	\$0.816	Quadra	minesite	\$17,321,242	\$3.145	\$0.365
Sodium Hydroxide -CN Rec	0.119	Test Reports	\$0.960	Quadra	minesite	\$5,420,688	\$0.984	\$0.114
Flocculant	0.0050	Estimate	\$4.848	Quadra	minesite	\$1,150,188	\$0.209	\$0.024
Antiscalant	0.0020	Estimate	\$4.800	Quadra	minesite	\$455,520	\$0.083	\$0.010
SUB-TOTAL REAGENTS						\$31,260,154	\$5.676	\$0.659
TOTAL CONSUMABLE						\$31,260,154	\$5.676	\$0.659

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - TUNNEL CONVEYING OPERATION

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	8	\$688,643	\$0.015
SUB-TOTAL MANPOWER	8	\$688,643	\$0.015
SUPPLIES			
SUPPLIES			
MAINTENANCE SUPPLIES		\$6,082,873	\$0.128
OPERATING SUPPLIES		\$114,371	\$0.002
POWER SUPPLY		\$6,386,580	\$0.135
SUB-TOTAL SUPPLIES		\$12,583,824	\$0.265
TOTAL	8	\$13,272,467	\$0.280

*included in flotation mill

TUNNEL CONVEYING OPERATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators	4	\$71,539	\$96,578	\$386,312	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.006
TOTAL OPERATING	8			\$688,643	\$0.015

POWER SUPPLY

Tunnel Conveying	kW	16,488
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Tunnel Conveying	135,769,141	\$0.047	6,386,580	0.135
TOTAL POWER SUPPLY	135,769,141	\$0.047	6,386,580	0.135

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Tunnel Conveying	allowance	\$6,082,873	\$0.128
SUB-TOTAL MAINTENANCE SUPPLIES		\$6,082,873	\$0.128
OPERATING SUPPLIES			
Miscellaneous	allowance	\$96,000	\$0.002
Light Vehicle	allowance	\$18,371	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$114,371	\$0.002
TOTAL SUPPLIES		\$6,197,244	\$0.131

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000
 Mill Availability 94%
 Annual operating days 365
 Annual Throughput 47,450,000 t/y
 Revision: A
 Updated On April/15/2012

SUMMARY - TAILING/RECLAIM WATER OPERATION

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
HUMAN POWER			
OPERATING LABOUR	8	\$688,643	\$0.015
SUB-TOTAL MANPOWER	8	\$688,643	\$0.015
SUPPLIES			
MAINTENANCE SUPPLIES		\$1,149,972	\$0.024
OPERATING SUPPLIES		\$133,363	\$0.003
POWER SUPPLY		\$2,518,723	\$0.053
SUB-TOTAL SUPPLIES		\$3,802,057	\$0.080
TOTAL	8	\$4,490,700	\$0.095

*included in flotation mill

TAILINGS/RECLAIM WATER OPERATION MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t milled)
OPERATING - HOURLY					
Operators	4	\$71,539	\$96,578	\$386,312	\$0.008
Helpers	4	\$55,987	\$75,583	\$302,331	\$0.006
TOTAL OPERATING	8			\$688,643	\$0.015

POWER SUPPLY

Tailing/Reclaim Water Power	kW	6,503
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
Tailing/Reclaim Water Power	53,544,274	\$0.047	2,518,723	0.053
TOTAL POWER SUPPLY	53,544,274	\$0.047	2,518,723	0.053

SUPPLIES

AREA		TOTAL COST (US\$/year)	UNIT COST (US\$/t milled)
MAINTENANCE SUPPLIES			
Tailing/Reclaim Water Power	allowance	\$1,149,972	\$0.024
SUB-TOTAL MAINTENANCE SUPPLIES		\$1,149,972	\$0.024
OPERATING SUPPLIES			
Miscellaneous	allowance	\$96,000	\$0.002
Light Vehicle	allowance	\$37,363	\$0.001
SUB-TOTAL OPERATING SUPPLIES		\$133,363	\$0.003
TOTAL SUPPLIES		\$1,283,335	\$0.027

SEABRIDGE GOLD INC
KERR-SULPHURETS-MITCHELL PROJECT
PROCESS OPERATING COSTS - KERR - HPGR

Daily tonnes milled 130,000 t/d
 Mill Availability 94%
 Annual operating days 365 days
 Annual Throughput 47,450,000 t/y
 CIL Feed 15,089 t/d
 Revision: A
 Updated On April/15/2012

SUMMARY - WATER TREATMENT PLANT

DESCRIPTION	HUMANPOWER	ANNUAL COST (US\$)	UNIT COST (US\$/CIL)	UNIT COST (US\$/t milled)
HUMANPOWER				
OPERATING LABOUR	0	\$0	\$0.000	\$0.000
SUB-TOTAL HUMANPOWER	0	\$0	\$0.000	\$0.000
SUPPLIES				
MAJOR CONSUMABLES				
REAGENT CONSUMABLES		\$214,288	\$0.039	\$0.005
SUPPLIES				
MAINTENANCE SUPPLIES		\$126,240	\$0.023	\$0.003
OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
POWER SUPPLY		\$24,724	\$0.004	\$0.001
SUB-TOTAL SUPPLIES		\$384,452	\$0.070	\$0.008
TOTAL	0	\$384,452	\$0.070	\$0.008

*included in flotation mill

WATER TREATMENT PLANT MANPOWER

DESCRIPTION	HUMANPOWER	BASE SALARY (US\$)	LOADED SALARY (US\$)	ANNUAL COST (US\$)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
OPERATING - HOURLY						
Operators	0	\$70,794	\$95,572	\$0	\$0.000	\$0.000
Helpers	0	\$55,404	\$74,795	\$0	\$0.000	\$0.000
SUB-TOTAL OPERATING	0			\$0	\$0.000	\$0.000
TOTAL STAFFING	0			\$0	\$0.000	\$0.000

POWER SUPPLY

Water Treatment Plant	kW	64
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SUPPLIES	KWH	UNIT COST (US\$/kwh)	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Water Treatment Plant	525,600	\$0.047	24,724	0.004	0.001
TOTAL POWER SUPPLY	525,600	\$0.047	24,724	0.004	0.001

MAINTENANCE SUPPLIES

MAINTENANCE SUPPLIES		TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Water Treatment Plant	allowance	\$107,040	\$0.019	\$0.0023
Miscellaneous Mill Supplies	allowance	\$9,600	\$0.002	\$0.0002
Misc. Building Complex Supplies	allowance	\$9,600	\$0.002	\$0.0002
SUB-TOTAL MAINTENANCE SUPPLIES		\$126,240	\$0.023	\$0.003
OPERATING SUPPLIES				
Miscellaneous		\$19,200	\$0.003	\$0.0004
SUB-TOTAL OPERATING SUPPLIES		\$19,200	\$0.003	\$0.000
TOTAL SUPPLIES		\$145,440	\$0.026	\$0.003

MAJOR CONSUMABLE

REAGENT CONSUMABLES	CONSUMPTION (kg/t milled)	SOURCE	UNIT COST (US\$/kg)	SOURCE	UNIT COST FOB POINT*	TOTAL COST (US\$/year)	UNIT COST (US\$/t CIL)	UNIT COST (US\$/t milled)
Flocculant	0.0004	Estimate	\$4.848	Quadra	minesite	\$97,353	\$0.018	\$0.002
Carbon	0.0007	Estimate	\$3.600	Quadra	minesite	\$116,935	\$0.021	\$0.002
SUB-TOTAL REAGENTS						\$214,288	\$0.039	\$0.005
TOTAL CONSUMABLE						\$214,288	\$0.039	\$0.005

Client: SEABRIDGE GOLD INC
Project Name: KERR-SULPHURETS-MITCHELL PROJECT (PFS Update)
Project Number: 12528801.00
Revision: A
Updated On: April/15/2012

GENERAL & ADMINISTRATIVE EXPENSES

G & A	Humanpower	Base Rate (US\$/year)	Loaded Salary (US\$/year)	Total Cost (US\$/year)	Unit Cost (US\$/t milled)
GENERAL & ADMINISTRATIVE HUMANPOWER					
- GENERAL & ADMINISTRATIVE - MINESITE					
General Manager	1	\$288,000	\$360,000	\$360,000	\$0.008
Assistant General Manager	1	\$192,000	\$240,000	\$240,000	\$0.005
Operations Manager	1	\$192,000	\$240,000	\$240,000	\$0.005
Logistics Manager-Transportation	1	\$172,800	\$216,000	\$216,000	\$0.005
Camp Logistics Manager	1	\$134,400	\$168,000	\$168,000	\$0.004
Human Resources Superintendent	1	\$124,800	\$156,000	\$156,000	\$0.003
Payroll Supervisor	1	\$96,000	\$120,000	\$120,000	\$0.003
Admin Manager	1	\$144,000	\$180,000	\$180,000	\$0.004
Administrative Assistants	2	\$72,000	\$90,000	\$180,000	\$0.004
Environmental Superintendent	1	\$134,400	\$168,000	\$168,000	\$0.004
Waste Management Technologists	4	\$86,400	\$108,000	\$432,000	\$0.009
Environmental Sampling Technicians	4	\$67,200	\$84,000	\$336,000	\$0.007
Wildlife Technologists	4	\$86,400	\$108,000	\$432,000	\$0.009
Aquatics Coordinator	1	\$115,200	\$144,000	\$144,000	\$0.003
Aquatics Technologists	2	\$86,400	\$108,000	\$216,000	\$0.005
Records/GIS Coordinators	1	\$86,400	\$108,000	\$108,000	\$0.002
Safety and Training Superintendent	1	\$115,200	\$144,000	\$144,000	\$0.003
Training Supervisors	4	\$86,400	\$108,000	\$432,000	\$0.009
Warehouse Supervisor	1	\$96,000	\$120,000	\$120,000	\$0.003
IT Technicians	4	\$81,600	\$102,000	\$408,000	\$0.009
Shipping & Transport Supervisor	1	\$105,600	\$132,000	\$132,000	\$0.003
Shipping & Transport Coordinator	1	\$76,800	\$96,000	\$96,000	\$0.002
General Clerks	8	\$57,600	\$72,000	\$576,000	\$0.012
Warehouse Assistants/First Aid	8	\$62,208	\$77,760	\$622,080	\$0.013
First Aid /Safety Coordinators	8	\$72,576	\$90,720	\$725,760	\$0.015
Security Manager	1	\$96,000	\$120,000	\$120,000	\$0.003
Security Officers	8	\$66,355	\$82,944	\$663,552	\$0.014
- STEWART					
Stewart Port Supervisor	1	\$86,400	\$108,000	\$108,000	\$0.002
Stewart Port Assistants	3	\$72,000	\$90,000	\$270,000	\$0.006
Security Officers	2	\$66,355	\$82,944	\$165,888	\$0.003
- SMITHERS/TERRANCE					
Office Manager	1	\$134,400	\$168,000	\$168,000	\$0.004
Community Coordinator	1	\$115,200	\$144,000	\$144,000	\$0.003
Assistant Community Coordinator	1	\$76,800	\$96,000	\$96,000	\$0.002
Human Resources -Recruiting Manager	1	\$134,400	\$168,000	\$168,000	\$0.004
Chief Purchasing/Logistics Mng	1	\$105,600	\$132,000	\$132,000	\$0.003
Purchasing Agent	1	\$76,800	\$96,000	\$96,000	\$0.002
Employee Travel - Site Transportation Supt	2	\$105,600	\$132,000	\$264,000	\$0.006
Chief Accountant	1	\$153,600	\$192,000	\$192,000	\$0.004
Controller/ Accountant	1	\$110,400	\$138,000	\$138,000	\$0.003
Environmental Manager	1	\$153,600	\$192,000	\$192,000	\$0.004
Assistant Environmental Manager	1	\$115,200	\$144,000	\$144,000	\$0.003
Permitting Coordinator	1	\$115,200	\$144,000	\$144,000	\$0.003
Compliance Specialists	4	\$86,400	\$108,000	\$432,000	\$0.009
Permitting- Govm't Relations Coordinator	1	\$115,200	\$144,000	\$144,000	\$0.003
Public Relations Officer	1	\$115,200	\$144,000	\$144,000	\$0.003
Employee Training/Safety Mng	1	\$105,600	\$132,000	\$132,000	\$0.003
Staff Employees (Accounting, Logistics, Training)	8	\$57,600	\$72,000	\$576,000	\$0.012
SUB-TOTAL 1	106			\$11,585,280	\$0.244
G&A EXPENSIVES					
Insurances				\$1,977,600	\$0.042
External Assays/Testings				\$1,186,560	\$0.025
Safety & Training				\$3,850,000	\$0.081
Medical Service/First Aid				\$197,760	\$0.004
Security Supplies				\$197,760	\$0.004
Legal Services - Allowance				\$200,000	\$0.004
Regulatory Compliance/Permits - Allowance				\$380,000	\$0.008
Consulting - Allowance				\$346,080	\$0.007
Small Vehicles				\$896,000	\$0.019
Site & Off-Site Offices Expenses/General Administration				\$340,000	\$0.007
Corp Head Office Expense, incl. Manpower				\$4,280,400	\$0.090
Recruitment				\$300,000	\$0.006
Communications				\$200,000	\$0.004
Travel				\$381,550	\$0.008
Community Improvements/Support				\$3,955,200	\$0.083
Accounting Services, incl. Auditing				\$500,000	\$0.011
System Management/Computer Services/Rents/Furniture				\$1,330,000	\$0.028
Professional Associations				\$98,880	\$0.002
Accommodation/Camp Costs				\$9,357,852	\$0.197
Regional Taxes & Licences Allowance				\$1,483,200	\$0.031
Environmental Expenses				\$988,800	\$0.021
Crew Air Transportation				\$6,005,007	\$0.127
Bus Transportation				\$1,342,278	\$0.028
Warehouse				\$1,977,600	\$0.042
Miscellaneous				\$197,760	\$0.004
SUB-TOTAL 2				\$41,970,288	\$0.885
TOTAL	106			\$53,555,568	\$1.129

Client: SEABRIDGE GOLD INC
Project Name: KERR-SULPHURETS-MITCHELL PROJECT (PFS Update)
Project Number: 12528801.00
Revision: A
Updated On: April/15/2012

SURFACE SERVICE EXPENSES

SURFACE SERVICE	Humanpower	Base Rate (US \$/year)	Loaded Salary (US\$/year)	Total Cost (US\$/year)	Unit Cost (US\$/t milled)
SURFACE SERVICE PERSONNEL					
Surface Foreman	2	\$96,000	\$120,000	\$240,000	\$0.005
Electrician-Surface Shops	2	\$85,018	\$114,774	\$229,548	\$0.005
Mechanic-Surface Shops	2	\$81,907	\$110,575	\$221,149	\$0.005
Carpenter-Surface Shops	1	\$72,576	\$97,978	\$97,978	\$0.002
Labourers-Yard/Surface Shops	4	\$55,987	\$75,583	\$302,331	\$0.006
Tunnel Maintenance	16	\$72,576	\$97,978	\$1,567,642	\$0.033
Surface Foreman-Offsite	2	\$96,000	\$120,000	\$240,000	\$0.005
Operators-Offsite	4	\$71,539	\$96,578	\$386,312	\$0.008
Helpers-Offsite	4	\$55,987	\$75,583	\$302,331	\$0.006
SUB-TOTAL 1	37			\$3,587,290	\$0.0756
SURFACE SERVICE EXPENSIVES					
Small Vehicles/Equipment				\$383,734	\$0.008
Potable Water & Waste Management					
Potable Water				\$49,440	\$0.001
Domestic Waste				\$197,760	\$0.004
Hazardous Waste				\$197,760	\$0.004
Sewage				\$29,664	\$0.001
Supplies				\$197,760	\$0.004
Building Maintenance					
Supplies Operating				\$296,640	\$0.006
Supplies Repairs				\$296,640	\$0.006
Tool Allowance				\$197,760	\$0.004
Services Purchased				\$148,320	\$0.003
Building Heating				\$2,966,400	\$0.063
Tunnel Ventilation/Maintenance				\$257,500	\$0.005
Road Maintenance				\$2,472,000	\$0.052
Power Line Maintenance				\$257,500	\$0.005
Power Supply				\$1,841,460	\$0.039
Avalanche Control				\$1,375,318	\$0.029
Off-Site Operation Expensive				\$206,000	\$0.004
SUB-TOTAL 2				\$11,371,656	\$0.240
TOTAL	37			\$14,958,946	\$0.315