SUMMARY OF COSTS

CAPITAL COSTS	COMPONENT NAME	COST	TOTAL LIABILITY
OPEN PIT	Umwelt	$35,187	$35,187
	Llama	$18,846	$18,846
	Echo	$18,625	$18,625
	Goose Main	$53,390	$53,390
QUARRY (under OPEN PIT TAB estimate)	Airstrip Quarry	$3,800	$3,800
UNDERGROUND MINE	Umwelt	$310,467	$310,467
	Llama	$89,886	$89,886
	Goose Main	$157,010	$157,010
	Echo	$96,206	$96,206
TAILINGS FACILITIES	TSF	$186,719	$186,719
ROCK PILE	Umwelt, Llama, Echo and TSF	$14,400,000	$14,400,000
BUILDINGS AND EQUIPMENT		$1,939,431	$1,939,431
CHEMICALS AND CONTAMINATED SOIL MANAGEMENT		$1,385,630	$1,385,630
SURFACE AND GROUNDWATER MANAGEMENT		$158,608	$158,608
INTERIM CARE AND MAINTENANCE		$592,201	$592,201
	SUBTOTAL: Capital Costs	**$19,446,004**	**$19,446,004**
	PERCENT OF SUBTOTAL		**100%**

INDIRECT COSTS		COST	TOTAL LIABILITY
MOBILIZATION/DEMOBILIZATION		$4,165,738	$4,165,738
POST-CLOSURE MONITORING AND MAINTENANCE		$5,565,651	$5,565,651
ENGINEERING	5%	$972,300	$972,300
PROJECT MANAGEMENT	5%	$972,300	$972,300
HEALTH AND SAFETY PLANS/MONITORING & QA/QC	1%	$194,460	$194,460
BONDING/INSURANCE	1%	$194,460	$194,460
CONTINGENCY	20%	$3,889,201	$3,889,201
MARKET PRICE FACTOR ADJUSTMENT	0%	$0	$0
	SUBTOTAL: Indirect Costs	**$15,954,111**	**$15,954,111**

TOTAL COSTS	**$35,400,115**	**$35,400,115**

5 **Open Pit Name:** **Umwelt** **Pit #** **1** **1**

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	Total Cost
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs	Assumed	each	4	Sabina	$75.00	$300	$300
Berm at crest	Estimated for continous berm with 1m diameter boulders, no spacing between boulders - 0.52 m3/m - assumed 50 % done during Operations	m3	426	RB1H	$17.05	$7,263	$7,263
Block roads	Temporary gate installation to allow water monitoring. It includes decommissioning of gate when no longer required. Exposed area after gate has been decommissioned will be blocked with boulders (exposed area along with block of roads with boulders included in berm cost above)	allow	1	Sabina	$5,000.00	$5,000	$5,000
Other				#N/A	$0.00	$0	$0
STABILITY STUDY							
Conduct stability and setback study		allow	1	Sabina	$10,000.00	$10,000	$10,000
STABILIZE SLOPES							
Off-load crest, soil A		m3		#N/A	$0.00	$0	$0
Off-load crest, soil B		m3		#N/A	$0.00	$0	$0
Doze/trim overburden at crest		m3		#N/A	$0.00	$0	$0
Drill & blast pit crest		m3		#N/A	$0.00	$0	$0
Buttress slope		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
COVER/CONTOUR SLOPES							
Place fill, soil A		m3		#N/A	$0.00	$0	$0
Place fill, soil B		m3		#N/A	$0.00	$0	$0
Rip rap		m3		#N/A	$0.00	$0	$0
Vegetate slopes		ha		#N/A	$0.00	$0	$0
Vegetate pit floor		ha		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
CONSTRUCT DIVERSION DITCHES							
Excavate ditches -soil		m3		#N/A	$0.00	$0	$0
Excavate ditches -rock		m3		#N/A	$0.00	$0	$0
Rip rap in channel base		m3		#N/A	$0.00	$0	$0
CONSTRUCT SPILLWAY							
Excavate channel	200 m long, 6 m wide and 1 m deep	m3	1,200	SB1L	$4.30	$5,160	$5,160
Concrete		m3		#N/A	$0.00	$0	$0
Rip rap		m3	400	RR1L	$13.50	$5,400	$5,400
Other	Geotextile	m2	600	GSTL	$3.44	$2,064	$2,064
RECLAIM QUARRIES							
Contour slopes		m3		#N/A	$0.00	$0	$0
Place overburden		m3		#N/A	$0.00	$0	$0
Vegetate		m3		#N/A	$0.00	$0	$0
FLOOD PIT-Capital							
Remove stationary equipment (sump pumps) and Pipeline	Umwelt TF will be used to store tailings in Years 2 to 6 and it will then passively flood with site runoff and direct precipitation through the remainder of Operations and into the Closure Phase. Pipelines/pumps will be relocated for use in the other active pits (Llama Pit and Goose Main Pit) and removed to closure landfill once they are no longer needed. Dispose of fuel in diesel day tank and oil from pump and landfill cleaned pump. Remove of pumps and pipelines will occur during Operations.	m		#N/A	$0.00	$0	$0
Remove dewatering pipeline		m		#N/A	$0.00	$0	$0
Remove power lines		each		#N/A	$0.00	$0	$0
Construct diversion ditches		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l A		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l B		m3		#N/A	$0.00	$0	$0
Construct embankment/dam		m3		#N/A	$0.00	$0	$0
Supply/install pump station		each		#N/A	$0.00	$0	$0
Supply/install piping system		m		#N/A	$0.00	$0	$0
Remove pump post-closure		each		#N/A	$0.00	$0	$0
Remove pipeline post-closure		m		#N/A	$0.00	$0	$0
FLOOD PIT-Annual Cost							
Operate pumps (power)		m3		#N/A	$0.00	$0	$0
Maintain pump/pipeline		allow		#N/A	$0.00	$0	$0
Labour:fuel management, comissioning/decom		$/h		#N/A	$0.00	$0	$0
Chemical addition, _____ kg/m3 of water		tonne		#N/A	$0.00	$0	$0
Chemicals, purchase and shipping		tonne		#N/A	$0.00	$0	$0
Passive/biological additives		$/ha		#N/A	$0.00	$0	$0
Passive additives purchase and shipping		tonne		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
					Annual pumping costs	$0	
Number of years of pump flooding	passive pit flooding	years	0				
					Total pumping costs	$0	$0
					Total	$35,187	$35,187
					% of Total		100%

Open Pit Name:		Llama			Pit #	2	2
ACTIVITY/MATERIAL	**Notes**	**Units**	**Quantity**	**Cost Code**	**Unit Cost**	**Cost**	**Total Cost**
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs	Assumed	each	4	Sabina	$75.00	$300	$300
Berm at crest	Estimated for berm with 1m diameter boulders, no spacing between boulders - 0.52 m3/m; berm needed only where pit edge will not abute the final flooded lake footprint.	m3	208	RB1H	$17.05	$3,546	$3,546
Block roads	Temporary gate installation to allow water monitoring. It includes decommissioning of gate when no longer required. Exposed area after gate has been decommissioned will be blocked with boulders (exposed area along with block of roads with boulders included in berm cost above)	allow	1	Sabina	$5,000.00	$5,000	$5,000
Other				#N/A	$0.00	$0	$0
STABILITY STUDY							
Conduct stability and setback study		allow	1	Sabina	$10,000.00	$10,000	$10,000
STABILIZE SLOPES							
Off-load crest, soil A		m3		#N/A	$0.00	$0	$0
Off-load crest, soil B		m3		#N/A	$0.00	$0	$0
Doze/trim overburden at crest		m3		#N/A	$0.00	$0	$0
Drill & blast pit crest		m3		#N/A	$0.00	$0	$0
Buttress slope		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
COVER/CONTOUR SLOPES							
Place fill, soil A		m3		#N/A	$0.00	$0	$0
Place fill, soil B		m3		#N/A	$0.00	$0	$0
Rip rap		m3		#N/A	$0.00	$0	$0
Vegetate slopes		ha		#N/A	$0.00	$0	$0
Vegetate pit floor		ha		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
CONSTRUCT DIVERSION DITCHES							
Excavate ditches -soil		m3		#N/A	$0.00	$0	$0
Excavate ditches -rock		m3		#N/A	$0.00	$0	$0
Rip rap in channel base		m3		#N/A	$0.00	$0	$0
CONSTRUCT SPILLWAY							
Excavate channel	Spillway not required; will follow natural drainage to Umwelt Lake.	m3		#N/A	$0.00	$0	$0
Concrete		m3		#N/A	$0.00	$0	$0
Rip rap		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
RECLAIM QUARRIES							
Contour slopes		m3		#N/A	$0.00	$0	$0
Place overburden		m3		#N/A	$0.00	$0	$0
Vegetate		m3		#N/A	$0.00	$0	$0
FLOOD PIT-Captital							
Remove stationary equipment (sump pumps) and Pipeline	In Year 6, the exhausted Llama Pit will be converted to a water reservoir. Water from the Saline Water Pond will be pumped into Llama Reservoir between Year 4 and Year 9. The Llama Reservoir will continue to passively flood with site runoff and direct precipitation through the remainder of Operations and into the Closure Phase. Pipelines/pumps will be relocated for use in the other active pits (Goose Main Pit and Echo Pit) and removed to closure landfill once they are no longer needed. Dispose of fuel in diesel day tank and oil from pump and landfill cleaned pump. Remove of pumps and pipelines will occur during Operations.	m		#N/A	$0.00	$0	$0
Remove dewatering pipeline		m		#N/A	$0.00	$0	$0
Remove power lines		each		#N/A	$0.00	$0	$0
Construct diversion ditches		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l A		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l B		m3		#N/A	$0.00	$0	$0
Construct embankment/dam		m3		#N/A	$0.00	$0	$0
Supply/install pump station		each		#N/A	$0.00	$0	$0
Supply/install piping system		m		#N/A	$0.00	$0	$0
Remove pump post-closure		each		#N/A	$0.00	$0	$0
Remove pipeline post-closure		m		#N/A	$0.00	$0	$0
FLOOD PIT-Annual Cost							
Operate pumps (power)		m3		#N/A	$0.00	$0	$0
Maintain pump/pipeline		allow		#N/A	$0.00	$0	$0
Labour:fuel management, comissioning/decom		$/h		#N/A	$0.00	$0	$0
Chemical addition, _____ kg/m3 of water		tonne		#N/A	$0.00	$0	$0
Chemicals, purchase and shipping		tonne		#N/A	$0.00	$0	$0
Passive/biological additives		$/ha		#N/A	$0.00	$0	$0
Passive additives purchase and shipping		tonne		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
					Annual pumping costs	$0	
Number of years of pump flooding	passive pit flooding	years	0				
					Total pumping costs	$0	$0
					Total	$18,846	$18,846
					% of Total		100%

Open Pit Name:	Echo				Pit #	3	3
ACTIVITY/MATERIAL	**Notes**	**Units**	**Quantity**	**Cost Code**	**Unit Cost**	**Cost**	**Total Cost**
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs	Assumed	each	4	Sabina	$75.00	$300	$300
Berm at crest	Estimated for continous berm with 1m diameter boulders, no spacing between boulders - 0.52 m3/m - assumed 50 % done during Operations	m3	195	RB1H	$17.05	$3,325	$3,325
Block roads	Temporary gate installation to allow water monitoring. It includes decommissioning of gate when no longer required. Exposed area after gate has been decommissioned will be blocked with boulders (exposed area along with block of roads with boulders included in berm cost above)	allow	1	Sabina	$5,000.00	$5,000	$5,000
Other				#N/A	$0.00	$0	$0
STABILITY STUDY							
Conduct stability and setback study		allow	1	Sabina	$10,000.00	$10,000	$10,000
STABILIZE SLOPES							
Off-load crest, soil A		m3		#N/A	$0.00	$0	$0
Off-load crest, soil B		m3		#N/A	$0.00	$0	$0
Doze/trim overburden at crest		m3		#N/A	$0.00	$0	$0
Drill & blast pit crest		m3		#N/A	$0.00	$0	$0
Buttress slope		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
COVER/CONTOUR SLOPES							
Place fill, soil A		m3		#N/A	$0.00	$0	$0
Place fill, soil B		m3		#N/A	$0.00	$0	$0
Rip rap		m3		#N/A	$0.00	$0	$0
Vegetate slopes		ha		#N/A	$0.00	$0	$0
Vegetate pit floor		ha		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
CONSTRUCT DIVERSION DITCHES							
Excavate ditches -soil		m3		#N/A	$0.00	$0	$0
Excavate ditches -rock		m3		#N/A	$0.00	$0	$0
Rip rap in channel base		m3		#N/A	$0.00	$0	$0
CONSTRUCT SPILLWAY							
Excavate channel	Spillway not required; will follow natural drainage to Goose Lake.	m3		#N/A	$0.00	$0	$0
Concrete		m3		#N/A	$0.00	$0	$0
Rip rap		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
RECLAIM QUARRIES							
Contour slopes		m3		#N/A	$0.00	$0	$0
Place overburden		m3		#N/A	$0.00	$0	$0
Vegetate		m3		#N/A	$0.00	$0	$0
FLOOD PIT-Captital							
Remove stationary equipment (sump pumps) and Pipeline	Once mining of the Echo Pit concludes in Year 5, dewatering will continue until Year 9 (i.e., the end of Echo U/G mining) as the two mines will be connected. Starting in Year 10, Echo Pit will passively flood with site runoff and direct precipitation through the remainder of Operations and into the Closure Phase. Pipelines/pumps will be removed to closure landfill. Dispose of fuel in diesel day tank and oil from pump and landfill cleaned pump. Remove of pumps and pipeline will occur during Operations.	m		#N/A	$0.00	$0	$0
Remove dewatering pipeline		m		#N/A	$0.00	$0	$0
Remove power lines		each		#N/A	$0.00	$0	$0
Construct diversion ditches		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l A		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l B		m3		#N/A	$0.00	$0	$0
Construct embankment/dam		m3		#N/A	$0.00	$0	$0
Supply/install pump station		each		#N/A	$0.00	$0	$0
Supply/install piping system		m		#N/A	$0.00	$0	$0
Remove pump post-closure		each		#N/A	$0.00	$0	$0
Remove pipeline post-closure		m		#N/A	$0.00	$0	$0
FLOOD PIT-Annual Cost							
Operate pumps (power)		m3		#N/A	$0.00	$0	$0
Maintain pump/pipeline		allow		#N/A	$0.00	$0	$0
Labour:fuel management, comissioning/decom		$/h		#N/A	$0.00	$0	$0
Chemical addition, _____ kg/m3 of water		tonne		#N/A	$0.00	$0	$0
Chemicals, purchase and shipping		tonne		#N/A	$0.00	$0	$0
Passive/biological additives		$/ha		#N/A	$0.00	$0	$0
Passive additives purchase and shipping		tonne		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
					Annual pumping costs	$0	
Number of years of pump flooding	passive pit flooding	years	0				
					Total pumping costs	$0	$0
					Total	$18,625	$18,625
					% of Total		100%

Open Pit Name:	Goose Main				Pit #	4	4
ACTIVITY/MATERIAL	**Notes**	**Units**	**Quantity**	**Cost Code**	**Unit Cost**	**Cost**	**Total Cost**
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs	Assumed	each	4	Sabina	$75.00	$300	$300
Berm at crest	Estimated for continous berm with 1m diameter boulders, no spacing between boulders - 0.52 m3/m - assumed 50 % done during Operations	m3	494	RB1H	$17.05	$8,423	$8,423
Block roads	Temporary gate installation to allow water monitoring. It includes decommissioning of gate when no longer required. Exposed area after gate has been decommissioned will be blocked with boulders (exposed area along with block of roads with boulders included in berm cost above)	allow	1	Sabina	$5,000.00	$5,000	$5,000
Other				#N/A	$0.00	$0	$0
STABILITY STUDY							
Conduct stability and setback study		allow	1	Sabina	$10,000.00	$10,000	$10,000
STABILIZE SLOPES							
Off-load crest, soil A		m3		#N/A	$0.00	$0	$0
Off-load crest, soil B		m3		#N/A	$0.00	$0	$0
Doze/trim overburden at crest		m3		#N/A	$0.00	$0	$0
Drill & blast pit crest		m3		#N/A	$0.00	$0	$0
Buttress slope		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
COVER/CONTOUR SLOPES							
Place fill, soil A		m3		#N/A	$0.00	$0	$0
Place fill, soil B		m3		#N/A	$0.00	$0	$0
Rip rap		m3		#N/A	$0.00	$0	$0
Vegetate slopes		ha		#N/A	$0.00	$0	$0
Vegetate pit floor		ha		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
CONSTRUCT DIVERSION DITCHES							
Excavate ditches -soil		m3		#N/A	$0.00	$0	$0
Excavate ditches -rock		m3		#N/A	$0.00	$0	$0
Rip rap in channel base		m3		#N/A	$0.00	$0	$0
CONSTRUCT SPILLWAY							
Excavate channel	100 m long, 6 m wide and 1 m deep	m3	600	SB1L	$4.30	$2,580	$2,580
Concrete		m3		#N/A	$0.00	$0	$0
Rip rap		m3	200	RR1L	$13.50	$2,700	$2,700
Other	Geotextile	m2	300	GSTL	$3.44	$1,032	$1,032
RECLAIM QUARRIES							
Contour slopes		m3		#N/A	$0.00	$0	$0
Place overburden		m3		#N/A	$0.00	$0	$0
Vegetate		m3		#N/A	$0.00	$0	$0
FLOOD PIT-Captital							
Remove stationary equipment (sump pumps) and Pipeline	At closure, pump will be at top of TF and pipeline leads to WTP. Remove pipeline to closure landfill; dispose of fuel in diesel day tank and oil from pump and landfill cleaned pump.	m	4,325	Sabina	$5.40	$23,355	$23,355
Remove dewatering pipeline		m		#N/A	$0.00	$0	$0
Remove power lines		each		#N/A	$0.00	$0	$0
Construct diversion ditches		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l A		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l B		m3		#N/A	$0.00	$0	$0
Construct embankment/dam		m3		#N/A	$0.00	$0	$0
Supply/install pump station		each		#N/A	$0.00	$0	$0
Supply/install piping system		m		#N/A	$0.00	$0	$0
Remove pump post-closure		each		#N/A	$0.00	$0	$0
Remove pipeline post-closure		m		#N/A	$0.00	$0	$0
FLOOD PIT-Annual Cost							
Operate pumps (power)		m3		#N/A	$0.00	$0	$0
Maintain pump/pipeline		allow		#N/A	$0.00	$0	$0
Labour:fuel management, comissioning/decom		$/h		#N/A	$0.00	$0	$0
Chemical addition, _____ kg/m3 of water		tonne		#N/A	$0.00	$0	$0
Chemicals, purchase and shipping		tonne		#N/A	$0.00	$0	$0
Passive/biological additives		$/ha		#N/A	$0.00	$0	$0
Passive additives purchase and shipping		tonne		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
					Annual pumping costs	$0	
Number of years of pump flooding	passive pit flooding	years	0				
					Total pumping costs	$0	$0
					Total	$53,390	$53,390
					% of Total		100%

Quarry Name:	Airstrip Quarry				Quarry #	1	1
ACTIVITY/MATERIAL	**Notes**	**Units**	**Quantity**	**Cost Code**	**Unit Cost**	**Cost**	**Total Cost**
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs		each		#N/A	$0.00	$0	$0
Berm at crest		m3		RB1H	$17.05	$0	$0
Block roads		allow		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
STABILITY STUDY							
Conduct stability and setback study	Not required for quarry	allow		#N/A	$0.00	$0	$0
STABILIZE SLOPES							
Off-load crest, soil A		m3		#N/A	$0.00	$0	$0
Off-load crest, soil B		m3		#N/A	$0.00	$0	$0
Doze/trim overburden at crest		m3		#N/A	$0.00	$0	$0
Drill & blast pit crest		m3		#N/A	$0.00	$0	$0
Buttress slope		m3		#N/A	$0.00	$0	$0
Other	Backhoe to pull down loose rock on bedrock backslope - assumed	hrs	20	exc-sL	$190.00	$3,800	$3,800
COVER/CONTOUR SLOPES							
Place fill, soil A		m3		#N/A	$0.00	$0	$0
Place fill, soil B		m3		#N/A	$0.00	$0	$0
Rip rap		m3		#N/A	$0.00	$0	$0
Vegetate slopes	Allow to revegetate naturally	ha		#N/A	$0.00	$0	$0
Vegetate pit floor		ha		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
CONSTRUCT DIVERSION DITCHES							
Excavate ditches -soil		m3		#N/A	$0.00	$0	$0
Excavate ditches -rock		m3		#N/A	$0.00	$0	$0
Rip rap in channel base		m3		#N/A	$0.00	$0	$0
CONSTRUCT SPILLWAY							
Excavate channel	Not required. Quarry base will be graded for sheet drainage.	m3		SB1L	$4.30	$0	$0
Concrete		m3		#N/A	$0.00	$0	$0
Rip rap		m3		RR1L	$13.50	$0	$0
Other		m2		GSTL	$3.44	$0	$0
RECLAIM QUARRIES							
Contour slopes	Quarry will not be flooded - development will occur below water level and the areas will be contoured to drain positively	m3		#N/A	$0.00	$0	$0
Place overburden		m3		#N/A	$0.00	$0	$0
Vegetate		m3		#N/A	$0.00	$0	$0
FLOOD PIT-Capital							
Remove stationary equipment (sump pumps) and Pipeline		m		#N/A	$0.00	$0	$0
Remove dewatering pipeline		m		#N/A	$0.00	$0	$0
Remove power lines		each		#N/A	$0.00	$0	$0
Construct diversion ditches		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l A		m3		#N/A	$0.00	$0	$0
-Ditch, mat'l B		m3		#N/A	$0.00	$0	$0
Construct embankment/dam		m3		#N/A	$0.00	$0	$0
Supply/install pump station		each		#N/A	$0.00	$0	$0
Supply/install piping system		m		#N/A	$0.00	$0	$0
Remove pump post-closure		each		#N/A	$0.00	$0	$0
Remove pipeline post-closure		m		#N/A	$0.00	$0	$0
FLOOD PIT-Annual Cost							
Operate pumps (power)		m3		#N/A	$0.00	$0	$0
Maintain pump/pipeline		allow		#N/A	$0.00	$0	$0
Labour:fuel management, comissioning/decom		$/h		#N/A	$0.00	$0	$0
Chemical addition, _____ kg/m3 of water		tonne		#N/A	$0.00	$0	$0
Chemicals, purchase and shipping		tonne		#N/A	$0.00	$0	$0
Passive/biological additives		$/ha		#N/A	$0.00	$0	$0
Passive additives purchase and shipping		tonne		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
					Annual pumping costs	$0	
Number of years of pump flooding	No flooding	years	0				
					Total pumping costs	$0	$0
					Total	$3,800	$3,800
					% of Total		100%

4 **Underground Mine Name Umwelt** **UG Mine # 1** **1**

ACTIVITY/MATERIAL	Notes	Unit	Qty	Cost Code	Unit Cost	Cost	Total Cost
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs		each		#N/A	$0.00	$0	$0
Block roads		m3		#N/A	$0.00	$0	$0
Berm		m3		#N/A	$0.00	$0	$0
Backfill Portal (NPAG waste rock plug)	At least 5 m deep into 5x4.5m portal and slope at least 2:1 outside of portal	m3	150	PORL	$18.80	$2,820	$2,820
Backfill portal #2		m3		#N/A	$0.00	$0	$0
Cap raise # 1	Concrete plug over 4m-dia. vent raise	m3	28	SRH	$2,132.00	$60,336	$60,336
Cap raise #2	Concrete plug over 4m-dia. vent raise	m3	28	SRH	$2,132.00	$60,336	$60,336
Cap shaft #1	Concrete plug over 4m-dia. fresh air vent	m3	28	SRH	$2,132.00	$60,336	$60,336
Cap shaft #2		m3		#N/A	$0.00	$0	$0
Backfill adits		m3		#N/A	$0.00	$0	$0
Backfill open stope		m3		#N/A	$0.00	$0	$0
Concrete cap over open stope		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
REMOVE HAZARDOUS MATERIALS							
Remove hazardous materials, U/G labor	Two shifts with loader, incl. operator and fuel	manhour	20	load-s	$175.00	$3,500	$3,500
Remove/decontam. stationary & elect. equip		mandays		#N/A	$0.00	$0	$0
Remove/decontam. mobile equipment		each		#N/A	$0.00	$0	$0
Remove misc. haz. mat & explosives	Dispose of up to 1 week's inventory of explosives	kg	100	Sabina	$50.00	$5,000	$5,000
Decommission Pipeline	Clean Umwelt UG to SWP pipeline, decommission and landfill	m	1,200	Sabina	$4.90	$5,880	$5,880
INSTALL BULKHEADS							
Bulkheads to control water flow		each		#N/A	$0.00	$0	$0
Grout bulkhead		m3		#N/A	$0.00	$0	$0
FLOOD MINE							
Supply/install pump	UG mine is expected to be flooded in Year 10 and active flooding will take about a year, relocation of pipelines and flooding will occur as part of operations but cost is provided as a conservative approach	each		#N/A	$0.00	$0	$0
Relocate Pipeline	Move SWP-Llama UG pipeline discharge to Umwelt UG	m	800	Sabina	$4.73	$3,780	$3,780
Operate pumps to flood workings		m3	763,134	Sabina	$0.13	$98,480	$98,480
Decommission of pipeline				#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
INSTALL GROUNDWATER COLLECTION SYSTEM							
Excavate/install sumps		m2		#N/A	$0.00	$0	$0
Install pumping wells		m3		#N/A	$0.00	$0	$0
Install pumps/pipelines/power supply		LS		#N/A	$0.00	$0	$0
SPECIALIZED ITEMS							
Install water quality monitoring pipes		each		#N/A	$0.00	$0	$0
Install permanent pumping system		each		#N/A	$0.00	$0	$0
Assess underground stability	Rock mechanics inspection before closure	each	1	Sabina	$10,000.00	$10,000	$10,000
					Total	$310,467	$310,467
					% of Total		100%

Underground Mine Name **Llama** **UG Mine # 2** **2**

ACTIVITY/MATERIAL	Notes	Unit	Qty	Cost Code	Unit Cost	Cost	Total Cost
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs		each		#N/A	$0.00	$0	$0
Block roads		m3		#N/A	$0.00	$0	$0
Berm		m3		#N/A	$0.00	$0	$0
Backfill Portal (NPAG waste rock plug)	At least 5 m deep into 5x4.5m portal and slope at least 2:1 outside of portal	m3	150	PORL	$18.80	$2,820	$2,820
Backfill portal #2		m3		#N/A	$0.00	$0	$0
Cap raise # 1	Concrete plug over 4m-dia. vent raise	LS	28	SRH	$2,132.00	$60,336	$60,336
Cap raise #2		m3		#N/A	$0.00	$0	$0
Cap shaft #1		m3		#N/A	$0.00	$0	$0
Cap shaft #2		m3		#N/A	$0.00	$0	$0
Backfill adits		m3		#N/A	$0.00	$0	$0
Backfill open stope		m3		#N/A	$0.00	$0	$0
Concrete cap over open stope		m3		#N/A	$0.00	$0	$0
Other							
REMOVE HAZARDOUS MATERIALS							
Remove hazardous materials, U/G labor	Two shifts with loader, incl. operator and fuel	manhour	20	load-s	$175.00	$3,500	$3,500
Remove/decontam. stationary & elect. equip		mandays		#N/A	$0.00	$0	$0
Remove/decontam. mobile equipment		each		#N/A	$0.00	$0	$0
Remove misc. haz. mat & explosives	Mining will cease before closure	kg		#N/A	$0.00	$0	$0
Decommission Pipeline	Clean Llama UG to SWP pipeline, decommission and landfill	m	2700	Sabina	$4.90	$13,230	$13,230
INSTALL BULKHEADS							
Bulkheads to control water flow		each		#N/A	$0.00	$0	$0
Grout bulkhead		m3		#N/A	$0.00	$0	$0
FLOOD MINE							
Supply/install pump	UG mine is expected to be flooded in Year 5 and active flooding will take about a year, relocation of pipelines and flooding will occur as part of operations	each		#N/A	$0.00	$0	$0
Supply/install piping system		m		#N/A	$0.00	$0	$0
Operate pumps to flood workings		m3		#N/A	$0.00	$0	$0
Decommission of pipelines				#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
INSTALL GROUNDWATER COLLECTION SYSTEM							
Excavate/install sumps		m2		#N/A	$0.00	$0	$0
Install pumping wells		m3		#N/A	$0.00	$0	$0
Install pumps/pipelines/power supply		LS		#N/A	$0.00	$0	$0
SPECIALIZED ITEMS							
Install water quality monitoring pipes		each		#N/A	$0.00	$0	$0
Install permanent pumping system		each		#N/A	$0.00	$0	$0
Assess underground stability	Rock mechanics inspection before closure	each	1	Sabina	$10,000.00	$10,000	$10,000
					Total	$89,886	$89,886
					% of Total		100%

Underground Mine Name	Goose Main	UG Mine # 3	3

ACTIVITY/MATERIAL	Notes	Unit	Qty	Cost Code	Unit Cost	Cost	Total Cost
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs		each		#N/A	$0.00	$0	$0
Block roads		m3		#N/A	$0.00	$0	$0
Berm		m3		#N/A	$0.00	$0	$0
Backfill Portal (NPAG waste rock plug)	At least 5 m deep into 5x4.5m portal and slope at least 2:1 outside of portal	m3	150	PORL	$18.80	$2,820	$2,820
Backfill portal #2		m3		#N/A	$0.00	$0	$0
Cap raise # 1	Concrete plug over 4m-dia. vent raise	LS	28	SRH	$2,132.00	$60,336	$60,336
Cap raise #2		m3		#N/A	$0.00	$0	$0
Cap shaft #1		m3		#N/A	$0.00	$0	$0
Cap shaft #2		m3		#N/A	$0.00	$0	$0
Backfill adits		m3		#N/A	$0.00	$0	$0
Backfill open stope		m3		#N/A	$0.00	$0	$0
Concrete cap over open stope		m3		#N/A	$0.00	$0	$0
Other							
REMOVE HAZARDOUS MATERIALS							
Remove hazardous materials, U/G labor	Two shifts with loader, incl. operator and fuel	manhour	20	load-s	$175.00	$3,500	$3,500
Remove/decontam. stationary & elect. equip		mandays		#N/A	$0.00	$0	$0
Remove/decontam. mobile equipment		each		#N/A	$0.00	$0	$0
Remove misc. haz. mat & explosives	Mining will cease before closure	kg		#N/A	$0.00	$0	$0
Decommission WTP - Goose Lake Pipeline	In Water Management tab	m		#N/A	$0.00	$0	$0
INSTALL BULKHEADS							
Bulkheads to control water flow		each		#N/A	$0.00	$0	$0
Grout bulkhead		m3		#N/A	$0.00	$0	$0
FLOOD MINE							
Supply/install pump	UG mine is expected to be flooded in Year 10 and active flooding will take about a year, relocation of pipelines and flooding will occur as progressive reclamation but cost is provided as a conservative approach	each		#N/A	$0.00	$0	$0
Supply/install piping system	Adjust pipe line to route to Goose UG in Year 10	m	4,500	Sabina	$3.91	$17,575	$17,575
Operate pumps to flood workings		m3	391,630	Sabina	$0.13	$52,259	$52,259
Decommission SWP to Goose UG pipeline		m	10,800	#N/A	$1.90	$20,520	$20,520
Other				#N/A	$0.00	$0	$0
INSTALL GROUNDWATER COLLECTION SYSTEM							
Excavate/install sumps		m2		#N/A	$0.00	$0	$0
Install pumping wells		m3		#N/A	$0.00	$0	$0
Install pumps/pipelines/power supply		LS		#N/A	$0.00	$0	$0
SPECIALIZED ITEMS							
Install water quality monitoring pipes		each		#N/A	$0.00	$0	$0
Install permanent pumping system		each		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
					Total	$157,010	$157,010
					% of Total		100%

Underground Mine Name	Echo	UG Mine # 4	4

ACTIVITY/MATERIAL	Notes	Unit	Qty	Cost Code	Unit Cost	Cost	Total Cost
CONTROL ACCESS							
Fence		m		#N/A	$0.00	$0	$0
Signs		each		#N/A	$0.00	$0	$0
Block roads		m3		#N/A	$0.00	$0	$0
Berm		m3		#N/A	$0.00	$0	$0
Backfill Portal (NPAG waste rock plug)	At least 5 m deep into 5x4.5m portal and slope at least 2:1 outside of portal	m3	150	PORL	$18.80	$2,820	$2,820
Backfill portal #2		m3		#N/A	$0.00	$0	$0
Cap raise # 1	Concrete plug over 4m-dia. vent raise	LS	28	SRH	$2,132.00	$60,336	$60,336
Cap raise #2		m3		#N/A	$0.00	$0	$0
Cap shaft #1		m3		#N/A	$0.00	$0	$0
Cap shaft #2		m3		#N/A	$0.00	$0	$0
Backfill adits		m3		#N/A	$0.00	$0	$0
Backfill open stope		m3	3,550	Sabina	$6.00	$21,300	$21,300
Concrete cap over open stope		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
REMOVE HAZARDOUS MATERIALS							
Remove hazardous materials, U/G labor	One shift with loader, incl. operator and fuel	manhour	10	load-s	$175.00	$1,750	$1,750
Remove/decontam. stationary & elect. equip		mandays		#N/A	$0.00	$0	$0
Remove/decontam. mobile equipment		each		#N/A	$0.00	$0	$0
Remove misc. haz. mat & explosives	Mining will cease before closure	kg		#N/A	$0.00	$0	$0
Decommission Pipeline		m		#N/A	$0.00	$0	$0
INSTALL BULKHEADS							
Bulkheads to control water flow		each		#N/A	$0.00	$0	$0
Grout bulkhead		m3		#N/A	$0.00	$0	$0
FLOOD MINE							
Supply/install pump	Passive flooding of Echo UG in Year 10, complete flooding is expected to occur within a few months.	each		#N/A	$0.00	$0	$0
Supply/install piping system		each		#N/A	$0.00	$0	$0
Operate pumps to flood workings		m3		#N/A	$0.00	$0	$0
Decommission				#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
INSTALL GROUNDWATER COLLECTION SYSTEM							
Excavate/install sumps		m2		#N/A	$0.00	$0	$0
Install pumping wells		m3		#N/A	$0.00	$0	$0
Install pumps/pipelines/power supply		LS		#N/A	$0.00	$0	$0
SPECIALIZED ITEMS							
Install water quality monitoring pipes		each		#N/A	$0.00	$0	$0
Install permanent pumping system		each		#N/A	$0.00	$0	$0
Assess underground stability	Rock mechanics inspection before closure	each	1	Sabina	$10,000.00	$10,000	$10,000
					Total	$96,206	$96,206
					% of Total		100%

1 **Tailings Impoundment Name:** **TSF** **Pond # 1**

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Total Cost
CONTROL ACCESS									
Fence		m		#N/A	$0.00	$0		$0	$0
Signs		each		#N/A	$0.00	$0		$0	$0
Berm		m3		#N/A	$0.00	$0		$0	$0
Block roads		m3		#N/A	$0.00	$0		$0	$0
Other				#N/A	$0.00	$0		$0	$0
STABILIZE EMBANKMENT(S)									
Toe buttress, drainage layer		m3		#N/A	$0.00	$0		$0	$0
Toe buttress, bulk fill		m3		#N/A	$0.00	$0		$0	$0
Rip rap		m3		#N/A	$0.00	$0		$0	$0
Vegetate		ha		#N/A	$0.00	$0		$0	$0
Raise crest		m3		#N/A	$0.00	$0		$0	$0
Flatten slopes		m3		#N/A	$0.00	$0		$0	$0
Other				#N/A	$0.00	$0		$0	$0
COVER TAILINGS									
Grade/shape tailings surface		m3		#N/A	$0.00	$0		$0	$0
Liner bedding		m3		#N/A	$0.00	$0		$0	$0
Subgrade preparation - compact		m2		#N/A	$0.00	$0		$0	$0
Supply geotextile/geosynthetic		m2		#N/A	$0.00	$0		$0	$0
Install geotextile/geosynthetic		m2		#N/A	$0.00	$0		$0	$0
Soil cover		m3		#N/A	$0.00	$0		$0	$0
Rock cover	Included in the quantity for waste rock pile cover (5m of NPAG). See Rock Pile tab.	m3		#N/A	$0.00	$0		$0	$0
Vegetate		m2		#N/A	$0.00	$0		$0	$0
Other				#N/A	$0.00	$0		$0	$0
BURY PAG ROCK									
Relocate PAG rock		m3		#N/A	$0.00	$0		$0	$0
Place cover over PAG rock		m3		#N/A	$0.00	$0		$0	$0
Raise crest of dam		m3		#N/A	$0.00	$0		$0	$0
Other				#N/A	$0.00	$0		$0	$0
STABILIZE DECANT SYSTEM									
Excavate and replace		m3		#N/A	$0.00	$0		$0	$0
Plug/backfill with concrete or clay		m3		#N/A	$0.00	$0		$0	$0
Other				#N/A	$0.00	$0		$0	$0
REMOVE TAILINGS DISCHARGE									
Cyclones		m3		#N/A	$0.00	$0		$0	$0
Pipe		m3		#N/A	$0.00	$0		$0	$0
Remove reclaim barge		allow		#N/A	$0.00	$0		$0	$0
CONSTRUCT DIVERSION DITCHES									
Excavate ditches -soil		m3		#N/A	$0.00	$0		$0	$0
Excavate ditches -rock		m3		#N/A	$0.00	$0		$0	$0
Rip rap in channel base (liner)		m2		#N/A	$0.00	$0		$0	$0
FLOOD TAILINGS									
Doze tailings to final contour		m3		#N/A	$0.00	$0		$0	$0
Raise crest of dam		m3		#N/A	$0.00	$0		$0	$0
Other				#N/A	$0.00	$0		$0	$0
UPGRADE SPILLWAY									
Excavate channel on TSF	Breach west end of dam to existing drainage reporting to Goose Main Pit; 100 m channel.	m3	11,000.0	Sabina	$7.30	$80,300		$0	$80,300
Excavate channel, soil		m3		#N/A	$0.00	$0		$0	$0
Concrete		m3		#N/A	$0.00	$0		$0	$0
Rip rap		m3	7,000	RR1L	$13.50	$94,500		$0	$94,500
Other	Geotextile	m2	2,860	GSTL	$3.44	$9,838		$0	$9,838
CONSTRUCT SEEPAGE COLLECTION POND									
Excavate seepage collection pond		m3		#N/A	$0.00	$0		$0	$0
Doze & spread excavated material		m3		#N/A	$0.00	$0		$0	$0
Vegetate spread material		ha		#N/A	$0.00	$0		$0	$0
Bedding layer		m3		#N/A	$0.00	$0		$0	$0
Supply geomembrane		m2		#N/A	$0.00	$0		$0	$0
Install geomembrane		m2		#N/A	$0.00	$0		$0	$0
Erosion protection layer		m3		#N/A	$0.00	$0		$0	$0
Breach seepage diversion berm		m3	285	Sabina	$7.30	$2,081		$0	$2,081
INSTALL GROUNDWATER COLLECTION SYSTEM									
Excavate/install sumps		m3		#N/A	$0.00	$0		$0	$0
Install pumping wells		m3		#N/A	$0.00	$0		$0	$0
Install pumps/pipelines/power supply		LS		#N/A	$0.00	$0		$0	$0
SPECIALIZED ITEMS									
Install permanent instrumentation, supply & technican		each		#N/A	$0.00	$0		$0	$0
Install permanent instrumentation, drilling		each		#N/A	$0.00	$0			$0
TREAT SEEPAGE - see "Water Management" and "Water Treatment"									
TREAT SUPERNATANT									
Pump water (to pit, U/G)		m3		#N/A	$0.00	$0		$0	$0
Equipment maintenance and parts		allow		#N/A	$0.00	$0		$0	$0
Supply reagents		tonne		#N/A	$0.00	$0		$0	$0
				Annual treatment costs		$0			
Number of years of treatment		years	0						
				Total treatment costs		$0			$0
					Total	$186,719		$0	$186,719
					% of Total			0%	100%

* for construction of passive treatment system refer to "Water Management"

1 **Rock Pile Name:** **Umwelt, Llama, Echo and TSF**

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	Total Cost
STABILIZE SLOPES							
Flatten slopes with dozer		m3		#N/A	$0.00	$0	$0
Flatten "bubble dump" areas		m3		#N/A	$0.00	$0	$0
Divert runon, ditch mat'l A		m3		#N/A	$0.00	$0	$0
Divert runon, ditch mat'l B		m3		#N/A	$0.00	$0	$0
Toe buttress, drain mat'l		m3		#N/A	$0.00	$0	$0
Toe buttress, fill mat'l A		m3		#N/A	$0.00	$0	$0
Toe buttress, fill mat'l B		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
COVER ROCK PILE							
Subgrade preparation - doze surface		m3		#N/A	$0.00	$0	$0
Soil cover - excavate,haul,spread&compact		m3		#N/A	$0.00	$0	$0
Rock cover - excavate,haul & spread	Cover 4 rock piles: Umwelt, Llama, Echo and TSF. Note all WRSAs will be covered progressively by direct hauling NPAG during mining; however Sabina is assuming that 48 ha will still require covering at Closure.	m3	2,400,000	Sabina	$6.00	$14,400,000	$14,400,000
Excavate downslope drainage channel & chute		m3		#N/A	$0.00	$0	$0
Rip rap drainage channel and chute		m3		#N/A	$0.00	$0	$0
Vegetate		ha		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
VERY LOW PERMEABILITY COVER (in addition to above)							
Liner subgrade preparation - compact		m2		#N/A	$0.00	$0	$0
Supply geomembrame		m2		#N/A	$0.00	$0	$0
Install geomembrane		m2		#N/A	$0.00	$0	$0
Protective cover - excavate,haul,spread&compact		m3		#N/A	$0.00	$0	$0
Vegetate		ha		#N/A	$0.00	$0	$0
Install infiltration/seepage instrumentation		allow		#N/A	$0.00	$0	$0
CONSTRUCT DIVERSION DITCHES							
Excavate ditches -soil		m3		#N/A	$0.00	$0	$0
Excavate ditches -rock		m3		#N/A	$0.00	$0	$0
Rip rap in channel base		m3		#N/A	$0.00	$0	$0
CONSTRUCT SEEPAGE COLLECTION POND							
Excavate seepage collection pond	See Water Management tab for berm breaching	m3		#N/A	$0.00	$0	$0
Doze & spread excavated material		m3		#N/A	$0.00	$0	$0
Vegetate spread material		ha		#N/A	$0.00	$0	$0
Bedding layer		m3		#N/A	$0.00	$0	$0
Supply geomembrane		m2		#N/A	$0.00	$0	$0
Install geomembrane		m2		#N/A	$0.00	$0	$0
Erosion protection layer		m3		#N/A	$0.00	$0	$0
INSTALL GROUNDWATER COLLECTION SYSTEM							
Excavate/install sumps		m3		#N/A	$0.00	$0	$0
Install pumping wells		m3		#N/A	$0.00	$0	$0
Install pumps/pipelines/power supply		allow		#N/A	$0.00	$0	$0
RELOCATE DUMPS							
Load, haul, dump or doze		m3		#N/A	$0.00	$0	$0
Add lime		tonne		#N/A	$0.00	$0	$0
Contour reclaimed area		ha		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
SPECIALIZED ITEMS							
Install ground temperature monitoring cable	Will be installed during Operations to meet opertional monitoring commitments	each		#N/A	$0.00	$0	$0
Install permanent instrumentation, drilling		each		#N/A	$0.00	$0	$0
TREAT ROCK PILE SEEPAGE - see "Water Management"							
HEAP LEACH SEEPAGE TREATMENT - Cyanide Detox							
Cyanide destruction water treatment pumping		m3		#N/A	$0.00	$0	$0
Reagents		tonnes		#N/A	$0.00	$0	$0
Electrician/mechanic to maintain treatment plant		allow		#N/A	$0.00	$0	$0
Equipment maintenance and parts		allow		#N/A	$0.00	$0	$0
					Annual treatment costs	$0	
Number of years of treatment		years	0				
					Total treatment costs	$0	$0
HEAP LEACH SEEPAGE TREATMENT - ARD/ML							
Upgrade/modify pumping system - report to WTP		allow		#N/A	$0.00	$0	$0
					Total	$14,400,000	$14,400,000
					% of Total		100%

* For construction of passive treatment system refer to "Water Management".

1 **Building / Equip Name:** **Bldg / Equip #: 1**

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	Total Cost
DISPOSE MOBILE EQUIPMENT							
Decontaminate and ship off-site		allow		#N/A	$0.00	$0	$0
Decontaminate and dispose on-site	Drive or transport to landfill; drain fluids; NPAG cover cost below	allow	1	Sabina	$20,000.00	$20,000	$20,000
Other				#N/A	$0.00	$0	$0
REMOVE BUILDINGS - see note below							
Accomodation Complex	Goose Admin: Kitchen/camp. Landfill building materials and pad	m2	1,980	BRS1L	$45.00	$89,100	$89,100
Process Facilities		m2	6,464	BRS1H	$65.00	$420,160	$420,160
Crusher		m2	1,630	BRS1H	$65.00	$105,950	$105,950
Power plant		m2	2,040	BRS1H	$65.00	$132,600	$132,600
Emergency power plant		m2	300	BRS1H	$65.00	$19,500	$19,500
Truck Shop/Office	Goose Admin building	m2	2,349	BRS1L	$45.00	$105,725	$105,725
Cold storage	Goose Admin building	m2	840	BRS1L	$45.00	$37,800	$37,800
Storage Facilites	Waste oil storage Goose Site	Lot	1	Sabina	$43,333.33	$43,333	$43,333
Storage Facility	Goose frieght storage	Lot	1	Sabina	$19,250.00	$19,250	$19,250
Water and Wastewater Treatment Facilities	Water treatment plant Goose Building	m2	647	BRS1L	$45.00	$29,115	$29,115
Sewage Treatment Plant	Remove hazardous materials and dispose of at licensed facility, landfill building materials	Lot	1	Sabina	$11,550.00	$11,550	$11,550
Fuel Tanks	Fuel storage and distribution Goose facility	Lot	1	Sabina	$154,000.00	$154,000	$154,000
Offices, Repair, Lab, Warehouse	MLA infrastructure Port Office	Units	5	Sabina	$2,340.00	$11,700	$11,700
Pipeline	MLA Infrastructure	m	10,000	Sabina	$3.90	$39,000	$39,000
Warehouse, Shops and Others	MLA Infrastructure. Includes: Incinerator and waste management, Warehouses, Genset, Maitenance shop, water storage, WTP/STP, camp/office, freaight storage area, waste area, fuel storage. Cost includes grade and contour pads, disposal at designated areas, remove hazard material when applicable.	LS	1	Sabina	$308,683.33	$308,683	$308,683
Freshwater intakes	pipes will be capped at substrate and left in place.	m2		#N/A	$0.00	$0	$0
Reclaim pumps		m2		#N/A	$0.00	$0	$0
Outfall & Diffuser		m2		#N/A	$0.00	$0	$0
Airstrip lighting, navigation, electrician		manhours	20	elecH	$95.00	$1,900	$1,900
Airstrip lighting, navigation, mechanical		manhours	20	mechH	$72.85	$1,457	$1,457
Break foundation slabs		m2		#N/A	$0.00	$0	$0
Consolidate & dump boneyard debris		m3		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
LANDFILL FOR DEMOLITION WASTE							
Place rock cover		m3	25,000	Sabina	$6.00	$150,000	$150,000
Place soil cover		m3		#N/A	$0.00	$0	$0
Vegetate		ha		#N/A	$0.00	$0	$0
GRADE AND CONTOUR PADS							
Accomodation Complex	Goose Admin: Kitchen/camp. no concrete foundation	ha	0.2	SCFYL	$4,300.00	$860	$860
Process Facilities	concrete foundation demolished to ground level	m2	6,464	BRCS	$6.00	$38,784	$38,784
Crusher	concrete foundation demolished to ground level	m2	1,630	BRCS	$6.00	$9,780	$9,780
Power plant	no concrete foundation	ha	0.3	SCFYL	$4,300.00	$1,290	$1,290
Emergency power plant	no concrete foundation	ha	0.10	SCFYL	$4,300.00	$430	$430
Truck Shop/Office	concrete foundation demolished to ground level	m2	2,349	BRCS	$6.00	$14,097	$14,097
Cold storage	no concrete foundation	ha	0.1	SCFYL	$4,300.00	$430	$430
Water and Wastewater Treatment Facilities	no concrete foundation	ha	0.1	SCFYL	$4,300.00	$430	$430
Sewage Treatment Plant	no concrete foundation	m2	33	BRCS	$6.00	$198	$198
Fuel Tanks	Fuel storage and distribution Goose facility; no concrete foundation	ha	2.2	SCFYL	$4,300.00	$9,460	$9,460
Warehouse, Shops and Other	MLA, includes all storage/laydown, Fual Tanks and camp area	ha	20	SCFYL	$4,300.00	$86,000	$86,000
Place rock cover		m3		#N/A	$0.00	$0	$0
Vegetate		ha		#N/A	$0.00	$0	$0
PUNCTURE LINED SUMPS							
Puncture liner and place soil cover		m3		#N/A	$0.00	$0	$0
RECLAIM ROADS							
Restore drainage, remove culverts haul road	Restore drainage including culverts; Roads will remain intact to facilitate long-term access.	m3	1,488	Sabina	$11.00	$16,368	$16,368
Remove bridges		each		#N/A	$0.00	$0	$0
Scarify and install water breaks		ha		#N/A	$0.00	$0	$0
Restore drainage airstrip		m3	1,020	Sabina	$12.00	$12,240	$12,240
Scarify laydown areas		ha		#N/A	$0.00	$0	$0
Scarify Winter Ice Roads	Fill sections on land - 8 km x 10 m wide = 8.0 ha	ha	8	SCFYH	$6,030.00	$48,240	$48,240
Vegetate		ha		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
SPECIALIZED ITEMS							
Dispose of misc. debris and laydown area refuse				#N/A	$0.00	$0	$0
					Total	$1,939,431	$1,939,431
					% of Total		100%

1 **Chemicals/Soil Area Name:**

Note: The procedures, equipment and packaging for clean up and removal of chemicals or contaminated soils are highly dependent on the nature of the chemicals and their existing state of containment. Government guidelines should be consulted on an individual chemical basis. Any estimate made here should be considered very rough unless specific evaluations have been conducted.

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost	Total Cost
HAZARDOUS MATERIALS AUDIT							
Hazardous materials audit		mandays		#N/A	$0.00	$0	$0
Phase 1 audit		each	1	CS1L	$7,500.00	$7,500	$7,500
Phase 2 audit		each	1	CS2L	$50,000.00	$50,000	$50,000
BUILDING DECONTAMINATION & CONSOLIDATION OF HAZARDOUS MATERIALS							
Environmental technician/coordinator		mandays		#N/A	$0.00	$0	$0
Decontaminate: oil, fuel		mandays		#N/A	$0.00	$0	$0
Decontaminate maintenance shop		mandays		#N/A	$0.00	$0	$0
Decontaminate power plant		mandays		#N/A	$0.00	$0	$0
Decontaminate bulk fuel storage		mandays		#N/A	$0.00	$0	$0
Decontaminate ANFO plant		mandays		#N/A	$0.00	$0	$0
Decontaminate offices/warehouse/accom		mandays		#N/A	$0.00	$0	$0
Removal of asbestos siding on buildings		m2		#N/A	$0.00	$0	$0
Removal of friable asbestos on equipment		m2		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
HAZARDOUS MATERIALS REMOVAL							
Waste oils	Consume in a waste oil burner on-site	litre	10,000	ORL	$0.43	$4,300	$4,300
Waste fuel	Consume on-site to power an incinerator, or in a waste oil burner	litre	250,000	ORL	$0.43	$107,500	$107,500
Waste batteries	Assumed 10 20-kg batteries generated in the final year of closure	kg	200	PCRH	$2.50	$500	$500
Assay & environmental lab reagents		kg	500	PCRH	$2.50	$1,250	$1,250
Machine shop paints, solvents etc		litre	200	PCRH	$2.50	$500	$500
Glycol		litre	5,000	PCRH	$2.50	$12,500	$12,500
Process reagents		kg	130,000	PCRH	$2.50	$325,000	$325,000
WTP sludge from Water Treatment	Assumes off-site disposal for 7 years of treatment. If sludge passes leach tests, will consider on-site disposal.	kg	21,000	PCRH	$2.50	$52,500	$52,500
Nuclear sources		allow		#N/A	$0.00	$0	$0
Mobile Equipment	Remove hazardous waste from equipment not being salvaged, clean, landfill equipment	each	41	Sabina	$2,280.00	$93,480	$93,480
HAZARDOUS MATERIALS							
Transportation to disposal facility	Included in hazardous materials removal cost	allow		#N/A	$0.00	$0	$0
Disposal fees	Included in hazardous materials removal cost	allow		#N/A	$0.00	$0	$0
Other				#N/A	$0.00	$0	$0
CONTAMINATED SOILS							
Contam. soil investigation - Phase 1		each		#N/A	$0.00	$0	$0
Contam. soil investigation - Phase 2		LS	1	Sabina	$50,000.00	$50,000	$50,000
CONTAMINATED SOIL REMOVAL							
Excavate and transport to onsite facility		m3	10,000	SB1H	$5.90	$59,000	$59,000
Manage hydrocarbon remediation at facility	Operate landfarms	m3	10,000	CSRL	$47.00	$470,000	$470,000
Reagents/stabilizing agent		m2		#N/A	$0.00	$0	$0
Excavate and transport to offsite facility		m3		#N/A	$0.00	$0	$0
Contour decontaminated area	Decommission 2 landfarms and confirmation soil sampling; estimated 6,000m3 at each of Goose and MLA sites.	m3	12,000	SB1L	$4.30	$51,600	$51,600
CONTAMINATED SOIL VERY LOW PERMEABILITY COVER							
Supply geomembrame, HDPE, ES3, GCL		m2		#N/A	$0.00	$0	$0
Upper and lower bedding layers		m3		#N/A	$0.00	$0	$0
Install geomembrane, HDPE, ES3, GCL		m2		#N/A	$0.00	$0	$0
Erosion protection layer		m3		#N/A	$0.00	$0	$0
Vegetate		m2		#N/A	$0.00	$0	$0
Install infiltration/seepage instrumentation		allow		#N/A	$0.00	$0	$0
Other	Construct landfarm 1 at Goose, 1 at MLA	allow	2	Sabina	$50,000.00	$100,000	$100,000
OTHER							
				#N/A	$0.00	$0	$0
					Total	$1,385,630	$1,385,630
					% of Total		100%

1 **Capital Expenditures and Short Term Water Treatment identified in 'Instructions' worksheet**

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Total Cost
BREACH DYKE EMBANKMENT						
Breach Llama Lake Diversion Berms		m3	665	#N/A	$7.30	$4,855
Breach Llama WRSA Diversion Berm		m3	95	#N/A	$7.30	$694
Breach Llama WRSA Containment Dam		m3	95	#N/A	$7.30	$694
Breach Primary Pond Containment Dam	Breach in Year 2 once Umwelt Pit mining compelte and starts as Umwelt Tailings Facility (TF); Primary Pond will water will gravity flow directly.	m3		#N/A	$0.00	$0
Breach Umwelt WRSA Containment Dam		m3	120	#N/A	$7.30	$876
Breach Umwelt WRSA Diversion Berm		m3	95	#N/A	$7.30	$694
Breach Echo WRSA Containment Dam		m3	190	#N/A	$7.30	$1,387
Breach Echo Diversion Berm (East and West)		m3	190	#N/A	$7.30	$1,387
Breach Echo WRSA Diversion Berm		m3	95	#N/A	$7.30	$694
Breach East Echo Containment Dam		m3	95	#N/A	$7.30	$694
Breach Goose Main Diversion Berm		m3	95	#N/A	$7.30	$694
Breach Ore Stockpile Diversion Berm and Containment Dam		m3	215	#N/A	$7.30	$1,570
Breach SWP Diversion Berms and Containment Dams		m3	430	#N/A	$8.00	$3,440
Remove Liner from all berms	Remove liner from all berms	m2	30,700	Sabina	$0.70	$21,490
Contour water intake area		m3		#N/A	$0.00	$0
STABILIZE SEDIMENT PONDS/WATER MANAGEMENT PONDS						
Place soil cover		m3		#N/A	$0.00	$0
Doze & spread excavated material		m3		#N/A	$0.00	$0
Vegetate spread material		ha		#N/A	$0.00	$0
Rip rap in channel base		each		#N/A	$0.00	$0
REDIRECT RUNOFF/CONSTRUCT DIVERSION DITCHES						
Excavate ditches -soil		m3		#N/A	$0.00	$0
Excavate ditches -rock		m3		#N/A	$0.00	$0
Stabilize side slopes		m3		#N/A	$0.00	$0
Rip rap in channel base		m3		#N/A	$0.00	$0
BREACH DITCHES						
Excavate breaches		m3		#N/A	$0.00	$0
Install flow dissipation		m3		#N/A	$0.00	$0
Vegetate remainder of ditch		m2		#N/A	$0.00	$0
DECOMISSION FRESH WATER SUPPLY						
Breach embankment		m3		#N/A	$0.00	$0
Remove pump		LS		#N/A	$0.00	$0
Remove pipelines		m		#N/A	$0.00	$0
DECOMISSION WATER RECLAIM BARGE						
Decomission reclaim barge from Goose Main TF		LS	1	Sabina	$10,000.00	$10,000
WATER CONTROL IN RECLAMATION QUARRY						
Install pumping system		LS		#N/A	$0.00	$0
Remove pumping system		m		#N/A	$0.00	$0
REMOVE PIPELINES						
Decommission Llama pump and pipeline		m	700	Sabina	$6.36	$4,450
Decomission WTP-Goose Lake pipeline		m	1,140	Sabina	$5.42	$6,175
Remove Umwelt Pond pump and pipeline		m	950	Sabina	$6.10	$5,795
Remove Primary Pond pump and pipeline		m	7,250	Sabina	$3.49	$25,325
Remove Echo WRSA Pond pump and pipeline		m	2,400	Sabina	$3.10	$7,440
Remove Echo NCW pond pump and pipeline		m	220	Sabina	$8.28	$1,822
Remove Ore Stockpile pump and pipline		m	4,550	Sabina	$3.10	$14,105
Decommission WTP pump and pipeline		m	7,520	Sabina	$4.60	$34,581
Decommission WTP		LS	1	Sabina	$9,750.00	$9,750
Concrete plug deep pipes		m3		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
GROUNDWATER COLLECTION SYSTEM						
Excavate/install sumps		m3		#N/A	$0.00	$0
Install pumping wells		m3		#N/A	$0.00	$0
Install pumps/pipelines/power supply		LS		#N/A	$0.00	$0
CONSTRUCT CONTAMINATED WATER STORAGE POND						
Excavate pond		m3		#N/A	$0.00	$0
Doze & spread excavated material		m3		#N/A	$0.00	$0
Vegetate spread material		ha		#N/A	$0.00	$0
Bedding layer		m3		#N/A	$0.00	$0
Supply geomembrane		m2		#N/A	$0.00	$0
Install geomembrane		m2		#N/A	$0.00	$0
Erosion protection layer		m3		#N/A	$0.00	$0
CONSTRUCT PASSIVE TREATMENT SYSTEM (e.g. Constructed Wetland)						
Construct access roads		km		#N/A	$0.00	$0
Install HDPE piping system from collection pond		m		#N/A	$0.00	$0
Inter-cell flow structures		allow		#N/A	$0.00	$0
Install liners		m2		#N/A	$0.00	$0
Install growth media		m3		#N/A	$0.00	$0
Wetland vegetation		ha		#N/A	$0.00	$0
CONSTRUCT WATER TREATMENT PLANT						
Build treatment plant	Treatment Plant will be constructed as part of operations	LS		#N/A	$0.00	$0
Build sludge containment facility		LS		#N/A	$0.00	$0
					Total	**$158,608**

For details of long-term/post-closure water treatment see "WATER TREATMENT" Worksheet"; costs included in this tab.

1 **Post Closure Water Treatment - Identified as long term/post-closure in 'Instructions' worksheet**

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Total Cost
ADDITION OF REAGENTS TO WTP						
H2O2		kg		#N/A	$0.00	$0
lime		kg		#N/A	$0.00	$0
ferric sulphate		kg		#N/A	$0.00	$0
ferrous sulphate		kg		#N/A	$0.00	$0
flocculents		kg		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
LABOUR AND SUPPLIES						
Annual fuel		litres		#N/A	$0.00	$0
Annual power		kW-h		#N/A	$0.00	$0
Electrician/mechanic to maintain treatment plant		allow		#N/A	$0.00	$0
Equipment maintenance and parts		allow		#N/A	$0.00	$0
Misc. supplies, hoses, tools		allow		#N/A	$0.00	$0
Communications		allow		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
WATER MANAGEMENT						
Pump from Goose Main TF to WTP	7.5 Mm3 for treatment in total	m3	1,071,429	POCL	$0.12	$128,571
Treat water from Goose Main TF in WTP		m3	1,071,429	TPOL	$0.35	$375,000
Pump from WTP recirc. into Goose Main TF		m3	1,071,429	POCL	$0.12	$128,571
WTP WATER SAMPLING AND ANALYSES						
Sampling equipment		allow		#N/A	$0.00	$0
Analyses		allow		#N/A	$0.00	$0
Shipping to laboratory		allow		#N/A	$0.00	$0
Reporting		allow		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
SITE ACCESS						
Road maintenance (incl. snow removal)		allow		#N/A	$0.00	$0
Winter road tariff		allow		#N/A	$0.00	$0
Truck rental		allow		#N/A	$0.00	$0
Air support		allow		#N/A	$0.00	$0
				Annual water treatment costs		$632,143
Number of years of water treatment		years	7			
					Total	$4,425,002

1 **Interim Care and Maintenance**

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Total Cost
INTERIM CARE & MAINTENANCE						
Camp operation	Caretaker and summer personnel	mandays	306	Sabina	110	$33,660
On-site staff	Caretaker and summer personnel	manhours	1,440	ENVCO	74.16	$106,790
extra personnel		manmonths		#N/A	0	$0
-electrician		manmonths		#N/A	0	$0
-mechanic		manmonths		#N/A	0	$0
annual fuel	Fuel for vehicles; fuel for pumping included in water treatment cost	litre	5,000	FCDH	1.39	$6,950
misc. supplies		allow	1	Sabina	20000	$20,000
pick-up truck		each		#N/A	0	$0
small dozer		allow		#N/A	0	$0
small excavator		allow		#N/A	0	$0
snow machine		allow		#N/A	0	$0
communications		allow		#N/A	0	$0
SNP/AEMP water sampling & reporting	Sampling and lab costs	each	1	WSH	10000	$10,000
geotechnical assessment	Annual geotechnical inspection	each	1	RPTH	20000	$20,000
interim water treatment	Captured under Water Treatment	each	1	#N/A	0	$0
other		each		#N/A	0	$0
			Annual	Interim C&M Cost		$197,400
Number of years of ICM		years	3		**Total**	$592,201

1

7 Years (Year 11 to 17)

ACTIVITY/MATERIAL - WATER TREATMENT	Notes	Units	Quantity	Cost Code	Unit Cost	Total Cost
MONITORING & INSPECTIONS						
Total geotechnical inspections (1 yearly)		year	-	#N/A	$0.00	$0
Waste Rock Piles		year		#N/A	$0.00	$0
Pit Walls		year		#N/A	$0.00	$0
WR GTC Monitoring		year		#N/A	$0.00	$0
Survey inspection		each		#N/A	$0.00	$0
Regulatory costs		year		#N/A	$0.00	$0
Site water monitoring		each		#N/A	$0.00	$0
- Active closure and flooding		each		#N/A	$0.00	$0
- Post pit flooding		each		#N/A	$0.00	$0
Wildlife Effects Monitoring Program (WEMP)		year		#N/A	$0.00	$0
Terrestrial Animal Monitoring		year		#N/A	$0.00	$0
Vegetation Monitoring		each		#N/A	$0.00	$0
Maintain gravel road surface		each		#N/A	$0.00	$0
Maintain airstrip surface		each		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
COVER MAINTENANCE						
Repair erosion - infill gullies		allow		#N/A	$0.00	$0
Repair erosion - upgrade diversion ditches		allow		#N/A	$0.00	$0
Remove problem vegetation		allow		#N/A	$0.00	$0
Repair animal damage		allow		#N/A	$0.00	$0
Repair/upgrade access controls		allow		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
SPILLWAY MAINTENANCE						
Repair erosion		m3		#N/A	$0.00	$0
Clear spillway		each		#N/A	$0.00	$0
CWTS MAINTENANCE						
Maintain flow, restore vegetation		allow		#N/A	$0.00	$0
POST-CLOSURE WATER TREATMENT						
Annual water treatment cost, from "Water Treatment"	Treatment for Closure Period (7 years)	LS	1	#N/A	$632,143	$632,143
Subtotal, Annual post-closure costs						$632,143
Discount rate for calculation of net present value of post-closure cost, %				3.00%		
Number of years of post-closure activity				7	years	
Present Value of payment stream						$3,938,430
Combined NPV of payment stream						**$5,565,651**

8 Years (Year 11 to 18)

ACTIVITY/MATERIAL - GEOTECHNICAL INSPECTIONS OF TSF	Notes	Units	Quantity	Cost Code	Unit Cost	Total Cost
MONITORING & INSPECTIONS						
Total geotechnical inspections (1 yearly)	Annual inspection of the TSF from Closure until embankment breaching in Year 18 (8 years).	year	1	RPTH	$20,000.00	$20,000
Waste Rock Piles		year		#N/A	$0.00	$0
Pit Walls		year		#N/A	$0.00	$0
WR GTC Monitoring		year		#N/A	$0.00	$0
Survey inspection		each		#N/A	$0.00	$0
Regulatory costs		year		#N/A	$0.00	$0
Site water monitoring		each		#N/A	$0.00	$0
- Active closure and flooding		each		#N/A	$0.00	$0
- Post pit flooding		each		#N/A	$0.00	$0
Wildlife Effects Monitoring Program (WEMP)		year		#N/A	$0.00	$0
Terrestrial Animal Monitoring		year		#N/A	$0.00	$0
Vegetation Monitoring		each		#N/A	$0.00	$0
Maintain gravel road surface		each		#N/A	$0.00	$0
Maintain airstrip surface		each		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
COVER MAINTENANCE						
Repair erosion - infill gullies		allow		#N/A	$0.00	$0
Repair erosion - upgrade diversion ditches		allow		#N/A	$0.00	$0
Remove problem vegetation		allow		#N/A	$0.00	$0
Repair animal damage		allow		#N/A	$0.00	$0
Repair/upgrade access controls		allow		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
SPILLWAY MAINTENANCE						
Repair erosion		m3		#N/A	$0.00	$0
Clear spillway		each		#N/A	$0.00	$0
CWTS MAINTENANCE						
Maintain flow, restore vegetation		allow		#N/A	$0.00	$0
POST-CLOSURE WATER TREATMENT						
Annual water treatment cost, from "Water Treatment"		LS		#N/A	$0.00	$0
Subtotal, Annual post-closure costs						$20,000
Discount rate for calculation of net present value of post-closure cost, %				3.00%		
Number of years of post-closure activity				8	years	
Present Value of payment stream						$140,394

						10 Years (Year 11 to 20)
ACTIVITY/MATERIAL - WEMP and TERRESTRIAL	**Notes**	**Units**	**Quantity**	**Cost Code**	**Unit Cost**	**Total Cost**
MONITORING & INSPECTIONS						
Total geotechnical inspections (1 yearly)		year		#N/A	$0.00	$0
Waste Rock Piles		year		#N/A	$0.00	$0
Pit Walls		year		#N/A	$0.00	$0
WR GTC Monitoring		year		#N/A	$0.00	$0
Survey inspection		each		#N/A	$0.00	$0
Regulatory costs*		year		#N/A	$0.00	$0
Site water monitoring		each		#N/A	$0.00	$0
- Active closure and flooding		each		#N/A	$0.00	$0
- Post pit flooding		each		#N/A	$0.00	$0
Wildlife Effects Monitoring Program (WEMP)	Aquatics - Non-contact water basins (10 years)	year	1	Sabina	$4,800.00	$4,800
Terrestrial Animal Monitoring	Terrestrial Animal Monitoring (10 years)	year	1	Sabina	$24,000.00	$24,000
Vegetation Monitoring		each		#N/A	$0.00	$0
Maintain gravel road surface		year		#N/A	$0.00	$0
Maintain airstrip surface		year		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
COVER MAINTENANCE						
Repair erosion - infill gullies		allow		#N/A	$0.00	$0
Repair erosion - upgrade diversion ditches		allow		#N/A	$0.00	$0
Remove problem vegetation		allow		#N/A	$0.00	$0
Repair animal damage		allow		#N/A	$0.00	$0
Repair/upgrade access controls		allow		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
SPILLWAY MAINTENANCE						
Repair erosion		m3		#N/A	$0.00	$0
Clear spillway		each		#N/A	$0.00	$0
CWTS MAINTENANCE						
Maintain flow, restore vegetation		allow		#N/A	$0.00	$0
POST-CLOSURE WATER TREATMENT						
Annual water treatment cost, from "Water Treatment"		LS		#N/A	$0.00	$0
Subtotal, Annual post-closure costs						$28,800
Discount rate for calculation of net present value of post-closure cost, %				3.00%		
Number of years of post-closure activity				10	years	
Present Value of payment stream						$245,670

13 Years (Year 11 to 23)

ACTIVITY/MATERIAL - Monitoring & Maintenance	Notes	Units	Quantity	Cost Code	Unit Cost	Total Cost
MONITORING & INSPECTIONS						
Total geotechnical inspections (1 yearly)		year		#N/A	$0.00	$0
Waste Rock Piles	Annual inspection of WR piles from closure to post-closure (13 years)	year	1	Sabina	$8,300.00	$8,300
Pit Walls	Annual inspection of pit walls from closure to post-closure (13 years)	year	1	Sabina	$4,000.00	$4,000
WR GTC Monitoring	Umwelt, Llama, and TSF WRSA ground temp cable annual monitoring. No GTCs at Echo WRSA (13 years)	year	1	Sabina	$14,400.00	$14,400
Survey inspection		each		#N/A	$0.00	$0
Regulatory costs	annual reporting, management plans, progress reports (13 years)	year	1	Sabina	$25,000.00	$25,000
Site water monitoring	All pits and WR piles closure and post closure monitoring (13 years)	year	1	Sabina	$9,120.00	$9,120
- Active closure and flooding		each		#N/A	$0.00	$0
- Post pit flooding		each		#N/A	$0.00	$0
Wildlife Effects Monitoring Program (WEMP)		year		#N/A	$0.00	$0
Terrestrial Animal Monitoring		year		#N/A	$0.00	$0
Vegetation Monitoring		each		#N/A	$0.00	$0
Maintain gravel road surface	maintence from closure to post-closure (13 years)	year	1	Sabina	$13,650.00	$13,650
Maintain airstrip surface	maintence from closure to post-closure (13 years)	year	1	Sabina	$3,900.00	$3,900
Other				#N/A	$0.00	$0
COVER MAINTENANCE						
Repair erosion - infill gullies		allow		#N/A	$0.00	$0
Repair erosion - upgrade diversion ditches		allow		#N/A	$0.00	$0
Remove problem vegetation		allow		#N/A	$0.00	$0
Repair animal damage		allow		#N/A	$0.00	$0
Repair/upgrade access controls		allow		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
SPILLWAY MAINTENANCE						
Repair erosion		m3		#N/A	$0.00	$0
Clear spillway		each		#N/A	$0.00	$0
CWTS MAINTENANCE						
Maintain flow, restore vegetation		allow		#N/A	$0.00	$0
POST-CLOSURE WATER TREATMENT						
Annual water treatment cost, from "Water Treatment"		LS		#N/A	$0.00	$0
Subtotal, Annual post-closure costs						$78,370
Discount rate for calculation of net present value of post-closure cost, %				3.00%		
Number of years of post-closure activity				13	years	
Present Value of payment stream						$833,461

Beyond Post Closure (Long Term 1 to 5, 7, 10, 15, 25)

ACTIVITY/MATERIAL - Long Term Monitoring	Notes	Units	Quantity	Cost Code	Unit Cost	Total Cost
MONITORING & INSPECTIONS						
General Water Sampling and Stability Monitoring	long term general monitoring	year	1	Sabina	$40,000.00	$40,000
Waste Rock Piles		year		#N/A	$0.00	$0
Pit Walls		year		#N/A	$0.00	$0
WR GTC Monitoring		year		#N/A	$0.00	$0
Survey inspection		each		#N/A	$0.00	$0
Regulatory costs		each	1	RPTH	$20,000.00	$20,000
Site water monitoring		year		#N/A	$0.00	$0
- Active closure and flooding		each		#N/A	$0.00	$0
- Post pit flooding		each		#N/A	$0.00	$0
Wildlife Effects Monitoring Program (WEMP)		year		#N/A	$0.00	$0
Terrestrial Animal Monitoring		year		#N/A	$0.00	$0
Vegetation Monitoring		each		#N/A	$0.00	$0
Maintain gravel road surface		year		#N/A	$0.00	$0
Maintain airstrip surface		year		#N/A	$0.00	$0
Other - Site Access	Float plane access	each	1	MWH	$9,100.00	$9,100
COVER MAINTENANCE						
Repair erosion - infill gullies		allow		#N/A	$0.00	$0
Repair erosion - upgrade diversion ditches		allow		#N/A	$0.00	$0
Remove problem vegetation		allow		#N/A	$0.00	$0
Repair animal damage		allow		#N/A	$0.00	$0
Repair/upgrade access controls		allow		#N/A	$0.00	$0
Other				#N/A	$0.00	$0
SPILLWAY MAINTENANCE						
Repair erosion		m3		#N/A	$0.00	$0
Clear spillway		each		#N/A	$0.00	$0
CWTS MAINTENANCE						
Maintain flow, restore vegetation		allow		#N/A	$0.00	$0
POST-CLOSURE WATER TREATMENT						
Annual water treatment cost, from "Water Treatment"		LS		#N/A	$0.00	$0
Subtotal, Annual post-closure costs						$69,100
Discount rate for calculation of net present value of post-closure cost, %				3.00%		
Number of years of post-closure activity			See Long Term	years		
Present Value of payment stream						$407,696

Annual Discout Rate:			3%		
Project Phase	Project Year	Closure Year	Post-Closure Monitoring Year	Long Term Monitoring (GTCs, physical, water)	
				One Time Cost	Yearly Total NPV
Operations	1				$0
	2				$0
	3				$0
	4				$0
	5				$0
	6				$0
	7				$0
	8				$0
	9				$0
	10				$0
Active Closure	11	1			$0
	12	2			$0
Passive Closure	13	3			$0
	14	4			$0
	15	5			$0
	16	6			$0
	17	7			$0
	18	8			$0
Post Closure	19	9	1	$69,100	$54,548
	20	10	2	$69,100	$52,959
	21	11	3	$69,100	$51,417
	22	12	4	$69,100	$49,919
	23	13	5	$69,100	$48,465
Beyond Post Closure	24	14	6		$0
	25	15	7	$69,100	$45,683
	26	16	8		$0
	27	17	9		$0
	28	18	10	$69,100	$41,807
	29	19	11		$0
	30	20	12		$0
	31	21	13		$0
	32	22	14		$0
	33	23	15	$69,100	$36,063
	34	24	16		$0
	35	25	17		$0
	36	26	18		$0
	37	27	19		$0
	38	28	20		$0
	39	29	21		$0
	40	30	22		$0
	41	31	23		$0
	42	32	24		$0
	43	33	25	$69,100	$26,834
			Net Present Value:		**$407,696**

1 Mobilization/Demobilization:

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
MOBILIZE HEAVY EQUIPMENT	Assumes mining equipment on abandoned mine site is operable and available.					
Light duty vehicles	Purchase pickups and Vans	each		#N/A	0	$0
Telehandlers	Purchase (standby)	each		#N/A	0	$0
Excavators	Purchase (320 Ex)	each		#N/A	0	$0
Dump trucks	Purchase 30T	each		#N/A	0	$0
Dozers	Purchase (D6T)	each		#N/A	0	$0
Grader	Purchase (140M)	each		#N/A	0	$0
Demolition shears	For a 320 Exc	each		#N/A	0	$0
Crane	Purchase	each		#N/A	0	$0
Loader	Purchase (966 Loader)	each		#N/A	0	$0
Manlifts	Ourchase (standby)	each		#N/A	0	$0
Small Equipment		LS		#N/A	0	$0
Compactor		each		#N/A	0	$0
MOBILIZE MISC. EQUIPMENT	Assumes mining equipment on abandoned mine site is operable and available.					
Pump shipping		each		#N/A	0	$0
Pipe shipping		m		#N/A	0	$0
Minor tools and equipment		allow		#N/A	0	$0
Truck tires		allow		#N/A	0	$0
Other				#N/A	0	$0
MOBILIZE CAMP						
Build 20 Person Camp	Goose Closure Camp	LS	1	Sabina	$19,250.00	$19,250
Build 20 Person Power Plant	Goose Closure Camp	LS	1	Sabina	$19,250.00	$19,250
Reclamation activities		allow		#N/A	0	$0
Long term reclamation activities (eg pump flooding)		allow		#N/A	0	$0
WORKER ACCOMODATIONS						
Camp operation		mandays	12,000	Sabina	$110.00	$1,320,000
Reclamation activities		manmonths		#N/A	0	$0
Long term reclamation activities (eg pump flooding)		manmonths		#N/A	0	$0
MOBILIZE FUEL						
Fuel freight - reclamation activities		litre		#N/A	0	$0
Fuel freight - long term reclamation activities		litre		#N/A	0	$0
Oil & Other		litre		#N/A	0	$0
Fuel freight accomodations		litre		#N/A	0	$0
GENERAL CONSTRUCTION INDIRECT						
Tooling, consumables, office & safety supplies	covered in Summary tab indirects	mandays		#N/A	0	$0
DEMOBILIZE HEAVY EQUIPMENT						
Excavators		km		#N/A	0	$0
Dump trucks		km		#N/A	0	$0
Dozers		km		#N/A	0	$0
Demolition shears		km		#N/A	0	$0
Crane		km		#N/A	0	$0
Loader		km		#N/A	0	$0
Compactor		each		#N/A	0	$0
Light duty vehicles		km		#N/A	0	$0
Other		km		#N/A	0	$0
DEMOBILIZE CAMP						
Food and Freight		kg	27,600	Sabina	$12.00	$331,200
Freight		Lot	1	Sabina	$500,000.00	$500,000
Mobilization		tonnes	500	Sabina	$1,500.00	$750,000
MOBILZE & DEMOBILIZE WORKERS						
Crew travel time - inbound & outbound	16 manhours per rotation	manhours	6,864	lab-sh	$49.60	$340,454
Crew transportation - inbound & outbound	28 day rotations - 12,000 man days	each	429	Sabina	$572.46	$245,583
WINTER ROAD						
Construction and operation	Assumes construction and maintance of 2-160 km winter ice roads; once during Active Closure and once in approximately Year 18.	km	320	WRCL	$2,000.00	$640,000
Limited winter use		km		#N/A	0	$0
Winter road tarriff		km		#N/A	0	$0
					Total	**$4,165,738**

Sabina Closure Component Estimating

							Labour					Const Equip Use		Other		Total	
Code	Description	NOTES	EQUIPMENT NUMBER	ESTIMATE SOURCE DOCUMENT	Qty	Unit of Measure	Unit Man-hrs	Prod Fact	Total Man-hrs	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
	Open Pit Closure																
	Place Boulder Fence																
	Umwelt Open Pit			x	1,635	m	0.06	1.00	98	95	9,320	175.00	17,168		-	16	26,487
	Echo open pit			x	750	m	0.06	1.00	45	95	4,275	175.00	7,875		-	16	12,150
	Goose open pit			x	1,900	m	0.06	1.00	114	95	10,830	175.00	19,950		-	16	30,780
	Llama open pit	Permieter needed only where pit edge will not abute the final flooded lake footprint. i.e. 400m length.		x	400	m	0.06	1.00	24	95	2,280	175.00	4,200		-	16	6,480
	Remove Pump and Pipeline																
	Umwelt pit sump	Occurs during Operations		x	1,740	m	0.02	1.00	35	95	3,306	175.00	6,090		-	5.40	9,396
	Llama pit sump	Occurs during Operations		x	2,850	m	0.02	1.00	57	95	5,415	175.00	9,975		-	5.40	15,390
	Goose pit sump			x	4,325	m	0.02	1.00	87	95	8,218	175.00	15,138		-	5.40	23,355
	Echo pit sump	Occurs during Operations		x	820	m	0.02	1.00	16	95	1,558	175.00	2,870		-	5.40	4,428
	Breech Pits into Receiving Waters																
	Umwelt open pit			x	1,200	m3	0.12	1.00	144		-	5.00	6,000		-	5.00	6,000
	Llama open pit	Natural drainage connection		x	-	m3	0.12	1.00	-		-	5.00	-		-	-	-
	Echo open pit	Natural drainage connection		x	-	m3	0.12	1.00	-		-	5.00	-		-	-	-
	Goose open pit			x	600	m3	0.12	1.00	72		-	5.00	3,000		-	5.00	3,000
	Landfill Mobile Equipment																
	Goose Site Mobile Equipment			x	41	units	24.00	1.00	984	95	93,480	-	-		-	2,280	93,480
	Underground Closure																
	Saline Water Pond (SWP) / WTP																
	Relocate pipeline to Umwelt UG from Llama UG			x	800	m	1.00	1.00	24	95	2,280	6.00	1,500		-	4.73	3,780
	Dewater SWP to Umwelt UG			x	763,134	m3	1.00	1.00	153	95	14,535		-	0.11	83,945	0.13	98,480
	Decommission SWP to Umwelt UG pipeline			x	1,200	m	0.02	1.00	24	95	2,280	3.00	3,600		-	4.90	5,880
	Adjust pipeline to route to Llama UG	Completed during Operations		x	500	m	0.03	1.00	65	95	6,175		-		-	12.35	6,175
	Dewater SWP to Llama UG			x	324,234	m3		1.00	80	95	7,600		-	0.11	35,666	0.13	43,266
	Adjust pipeline to route to Goose UG			x	4,500	m	0.03	1.00	185	95	17,575		-		-	3.91	17,575
	Dewater SWP to Goose UG			x	391,630	m3		1.00	215	95	20,425		-	0.11	43,079	0.16	63,504
	Decommission SWP to Goose UG pipelines			x	10,800	m	0.02	1.00	216	95	20,520		-		-	1.90	20,520
	Breach SWP Diversion Berms and Containment Dams			x	430	m3	0.12	1.00	52		-	8.00	3,440		-	8.00	3,440
	Decomission WTP-Goose Lake pipeline			x	1,140	m	0.02	1.00	65	95	6,175		-		-	5.42	6,175
	Llama UG																
	Decommission pipeline	Completed during Operations		x	2,700	m	0.02	1.00	54	95	5,130	3.00	8,100		-	4.90	13,230
	Umwelt portal																
	Plug declines with waste rock			x	150	m3	0.05	1.00	8		-	6.00	900		-	6.00	900
	Llama portal																
	Plug declines with waste rock			x	150	m3	0.05	1.00	8		-	6.00	900		-	6.00	900
	Goose portal																
	Plug declines with waste rock			x	150	m3	0.05	1.00	8		-	6.00	900		-	6.00	900
	Echo portal																
	Plug declines with waste rock			x	150	m3	0.05	1.00	8		-	6.00	900		-	6.00	900
	Umwelt vent/circular backfill raises																
	Plug vent raises with concrete plug			x	1	LS	1.00	1.00	60		-	-	-		-	120,000	120,000
	Llama vent/circular backfill raises																
	Plug vent raises with concrete plug			x	1	LS	1.00	1.00	60		-	-	-		-	50,000	50,000
	Goose vent/circular backfill raises																
	Plug vent raises with concrete plug			x	1	LS	1.00	1.00	60		-	-	-		-	50,000	50,000
	Echo vent/circular backfill raises																
	Plug vent raises with concrete plug			x	1	LS	1.00	1.00	60		-	-	-		-	50,000	50,000
	Echo crown pillar																
	Plug UG stopes			x	3,550	m3	0.05	1.00	178		-	6.00	21,300		-	6.00	21,300
	Waste Rock Stockpiles and Landfills																
	WR Pile Closure																
	Cap and Slope WR Piles			x	2,400,000	m3	0.06	1.00	144,000		-	6.00	14,400,000		-	6.00	14,400,000

	Landfill Closure																
	Cap and Reslope Landfills			x	25,000	m3	0.06	1.00	1,500		-	6.00	150,000		-	6.00	150,000
	Water Management Structures																
	Llama Structures																
	Breach Llama Lake Diversion Berms			x	665	m3	0.06	1.00	43		-	7.30	4,855		-	7.30	4,855
	Breach Llama WRSA Diversion Berm			x	95	m3	0.06	1.00	6		-	7.30	694		-	7.30	694
	Breach Llama WRSA Containment Dam				95	m3	0.06	1.00	6		-	7.30	694		-	7.30	694
	Decommission Llama pump and pipeline	24 hrs for pump		x	700	m	0.02	1.00	38	95	3,610	1.20	840		-	6.36	4,450
	Umwelt Structures																
	Breach Primary Pond Containment Dam			x	200	m3	0.06	1.00	13		-	7.30	1,460		-	7.30	1,460
	Breach Umwelt WRSA Containment Dam			x	120	m3	0.06	1.00	8		-	7.30	876		-	7.30	876
	Breach Umwelt WRSA Diversion Berm			x	95	m3	0.06	1.00	6		-	7.30	694		-	7.30	694
	Remove Umwelt Pond pump and pipeline			x	950	m	0.02	1.00	49	95	4,655	1.20	1,140		-	6.10	5,795
	Remove Primary pond pump and pipeline			x	7,250	m	0.02	1.00	175	95	16,625	1.20	8,700		-	3.49	25,325
	Echo Structures																
	Breach Echo WRSA Containment Dam			x	190	m3	0.06	1.00	12		-	7.30	1,387		-	7.30	1,387
	Breach Echo Diversion Berm (East and West)			x	190	m3	0.06	1.00	12		-	7.30	1,387		-	7.30	1,387
	Breach Echo WRSA Diversion Berm			x	95	m3	0.06	1.00	6		-	7.30	694		-	7.30	694
	Breach East Echo Containment Dam			x	95	m3	0.06	1.00	6		-	7.30	694		-	7.30	694
	Remove Echo WRSA Pond pump and pipeline			x	2,400	m	0.02	1.00	48	95	4,560	1.20	2,880		-	3.10	7,440
	Remove Echo NCW pond pump and pipeline			x	220	m	0.02	1.00	16	95	1,558	1.20	264		-	8.28	1,822
	Goose Structures																
	Breach Goose Main Diversion Berm			x	95	m3	1.00	1.00	95		-	7.30	694		-	7.30	694
	TSF Structures																
	Breach TSF Dam			x	11,000	m3	0.05	1.00	550		-	7.30	80,300		-	7.30	80,300
	Breach TSF WRSA Diversion Berm			x	285	m3	0.05	1.00	14		-	7.30	2,081		-	7.30	2,081
	Ore Stockpile Structures																
	Remove pump and pipeline			x	4,550	m	0.02	1.00	91	95	8,645	1.20	5,460		-	3.10	14,105
	Breach Ore Stockpile Diversion Berm and Containment Dam			x	215	m3	0.06	1.00	13		-	7.30	1,570		-	7.30	1,570
	Buildings and Equipment																
	Dissassembly - Goose Plant and Crusher																
	Dismantle Plant			x	6,464	m2	1.00	1.00	3,200	95	304,000	100.00	106,667	-	-	63.53	410,667
	Dismantle Crushers			x	1,630	m2	1.00	1.00	800	95	76,000	100.00	26,667	-	-	62.99	102,667
	Dismantle Power Plant			x	2,040	m2	1.00	1.00	1,000	95	95,000	100.00	33,333	-	-	62.91	128,333
	Dismantle Emergency Power - Fuel			x	300	m2	1.00	1.00	150	95	14,250	100.00	5,000	-	-	64.17	19,250
	Dismantle Fuel Storage and Distribution			x	1	Lot	1.00	1.00	1,200	95	114,000	100.00	40,000	-	-	154,000	154,000
	Goose Admin Buildings																
	Demolish Truck Shop/Office			x	2,349	m2	1.00	1.00	1,000	95	95,000	100.00	33,333	-	-	54.62	128,333
	Demolish Kitchen/Camp			x	1,980	m2	1.00	1.00	900	95	85,500	100.00	30,000	-	-	58.33	115,500
	Demolish Cold Storage			x	840	m2	1.00	1.00	150	95	14,250	100.00	5,000	-	-	22.92	19,250
	Demolish Waste/Waste Oil Storage			x	1	Lot	1.00	1.00	100		-	100.00	3,333	40,000	40,000	43,333	43,333
	Remove Freight Storage			x	1	Lot	1.00	1.00	150	95	14,250	100.00	5,000	-	-	19,250	19,250
	Demolish Water Treatment Plant			x	647	m2	8.00	1.00	100	95	9,500	100.00	3,333	-	-	19.84	12,833
	Demolish Sewage Treatment Plant			x	1	Lot	1.00	1.00	90	95	8,550	100.00	3,000	-	-	11,550	11,550
	MLA Infrastructure																
	Demolish Port Office			x	5	Units	12.00	1.00	60	95	5,700	100.00	6,000	-	-	2,340	11,700
	Remove Pipelines			x	10,000	m	0.02	1.00	200	95	19,000	100.00	20,000	-	-	3.90	39,000
	Demolish Incinerator and Waste Management			x	1	Lot	1.00	1.00	50	95	4,750	100.00	5,000	-	-	9,750	9,750
	Demolish Warehuses			x	1	Lot	1.00	1.00	30	95	2,850	100.00	3,000	-	-	5,850	5,850
	Dismantle Genset			x	1	Lot	1.00	1.00	150	95	14,250	100.00	15,000	-	-	29,250	29,250
	Demolish Maintenance Shop			x	1	Lot	1.00	1.00	50	95	4,750	100.00	5,000	-	-	9,750	9,750
	Demolish Water Storage			x	1	Lot	1.00	1.00	50	95	4,750	100.00	5,000	-	-	9,750	9,750
	Demolish WTP/STP			x	1	Lot	1.00	1.00	50	95	4,750	100.00	5,000	-	-	9,750	9,750
	Demolish camp/offices			x	1	Lot	1.00	1.00	50	95	4,750	100.00	5,000	-	-	9,750	9,750
	Demolish freight storage area			x	1	Lot	1.00	1.00	50	95	4,750	100.00	5,000	-	-	9,750	9,750
	Demolish hazardous wate Area			x	1	Lot	1.00	1.00	50	95	4,750	100.00	5,000	-	-	9,750	9,750
	Dismantle Fuel Storage			x	1	Lot	1.00	1.00	1,600	95	152,000	100.00	53,333	-	-	205,333	205,333
	Goose Closure Camp																
	Build 20 Person Camp			x	1	Lot	1.00	1.00	150	95	14,250	100.00	5,000		-	19,250	19,250
	Build 20 Person Power Plant			x	1	Lot	1.00	1.00	150	95	14,250	100.00	5,000		-	19,250	19,250
	Camp Operation	Over 13 years of Closure and Post-Closure		x	12,000	Man Days	1.00	1.00		-	-	-	-	110	1,320,000	110	1,320,000
	Roads and Airstrips																
	Main Haulroad																
	Maintain Road Surface			x	13	Yr	70.00	1.00	910	95	86,450	100.00	91,000		-	13,650	177,450
	Restore Drainage	Remove Culverts		x	1,488	m3	0.06	1.00	89		-	11.00	16,368		-	11.00	16,368

	Airstrips																
	Maintain Airstrip Surface			x	13	Yr	20.00	1.00	260	95	24,700	100.00	26,000		-	3,900	50,700
	Restore Drainage			x	1,020	m3	0.06	1.00	61		-	12.00	12,240		-	12.00	12,240
	Water Treatment																
	WTP Pipelines and Treatment Plant																
	Pump from Goose Main TF to WTP	Pump and treat water in TF at WTP for 7 years, open water season		x	7,500,000	m3		1.00			-	-	-	0	825,000	0.11	825,000
	Treat water from Goose Main TF in TWP			x	7,500,000	m3		1.00	1,916		-	-	-	0	2,625,000	0.35	2,625,000
	Pump from WTP recirc. into Goose Main TF			x	7,500,000	m3		1.00	-		-	-	-	0	825,000	0.11	825,000
	Decommission WTP pump and pipeline			x	6,700	m	0.02	1.00	158	95	15,010	100.00	15,800		-	4.60	30,810
	Decommission WTP pump and return pipeline			x	820	m	0.02	1.00	40	95	3,838	100.00	4,040		-	9.61	7,878
	Decommission WTP			x	1	Lot		1.00	50	95	4,750	100.00	5,000		-	9,750	9,750
	Contaminated Soil																
	Sitewide Investigation																
	Site Investigation to estimate quantity of contaminated soil	Testpit program with excavator in all parking, fuel storage, washbays truck and maintenance shops and generator areas.		x	1	Lot	1.00	1.00			-	-	-		50,000	50,000	50,000
	Treatment																
	Transport contaminated soil			x	10,000	m3	0.05	1.00	500		-	7.30	73,000		-	7.30	73,000
	Separation plant	Purchase seperation equipment		x	1	Lot	1.00	1.00			-	-	-		100,000	100,000	100,000
	Closure / Post-Closure Monitoring																
	Geotechnical Inspections																
	TSF embankments			x	8	Units	20.00	1.00	160		-	-	-	10,000	80,000	10,000	80,000
	WR piles			x	13	Units	20.00	1.00	260		-	-	-	8,300	107,900	8,300	107,900
	Pit walls			x	13	Units	20.00	1.00	260		-	-	-	4,000	52,000	4,000	52,000
	Ground Temperature Monitoring																
	Umwelt WRSA GTC Monitoring after Closure	Monthly		x	13	Years	24.00	1.00	312	200	62,400	-	-		-	4,800	62,400
	LLama WRSA GTC Monitoring after Closure	Monthly		x	13	Years	24.00	1.00	312	200	62,400	-	-		-	4,800	62,400
	TSF WRSA GTC Monitoring after Closure	Monthly		x	13	Years	24.00	1.00	312	200	62,400	-	-		-	4,800	62,400
	WQ Monitoring - Closure																
	Llama pit	Depends on Breech		x	13	Years	12.00	1.00	156	95	14,820	-	-		-	1,140	14,820
	Llama WR Pile			x	13	Years	12.00	1.00	156	95	14,820	-	-		-	1,140	14,820
	Umwelt pit	Depends on Breach		x	13	Years	12.00	1.00	156	95	14,820	-	-		-	1,140	14,820
	Umwelt WR Pile			x	13	Years	12.00	1.00	156	95	14,820	-	-		-	1,140	14,820
	Echo pit	Depends on Breach		x	13	Years	12.00	1.00	156	95	14,820	-	-		-	1,140	14,820
	Echo WR pile			x	13	Years	12.00	1.00	156	95	14,820	-	-		-	1,140	14,820
	Goose pit	Depends on Breach		x	13	Years	12.00	1.00	156	95	14,820	-	-		-	1,140	14,820
	TSF WR Pile			x	13	Years	12.00	1.00	156	95	14,820	-	-		-	1,140	14,820
	Aquatic Effects monitoring																
	Aquatic effects monitoring	Non-contact Water Basins		x	10	Years	60.00	1.00	600	80	48,000	-	-		-	4,800	48,000
	Terrestrial Animal Monitoring																
	Terrestrial Animal Monitoring			x	10	Years	300.00	1.00	3,000	80	240,000	-	-		-	24,000	240,000
	Total Direct Costs																24,034,589
	CONSTRUCTION INDIRECTS																
	Freight & Transport																
	Food & Freight	Total Mandays factored		x	27,600	kg		1.00		-	-		-	12	331,200	12	331,200
	Freight	Rental equip, offices, etc..		x	1	Lot	-	1.00	-	-	-	-	-	500,000	500,000	500,000	500,000
	Mobilization			x	500	Tonnes								1,500	750,000	1,500	750,000
	General Construction Indirects																
	Site Services Labour			x	16,000	HRS	1.00	1.00	16,000	65	1,040,000	-	-	-	-	65.00	1,040,000
	Accomodations & Travel																
	Camp Accomodations/Operation			x	12,000	Man Days	1.00	1.00		-	-	-	-	110	1,320,000	110	1,320,000
	Airfare & Transportation			x	429	Each	-	1.00		-	-	-	-	572	245,583	572	245,583
	Contractor Profit																
	Total Component Estimate																28,221,373