SUMMARY OF COSTS

CAPITAL COSTS	COMPONENT NAME	COST	LAND LIABILITY	WATER LIABILITY	Reduction October 2020	Security as at May 2020
OPEN PIT		\$0	\$0	\$0	0	0
UNDERGROUND MINE		\$246,298	\$0	\$246,298	\$0	\$246,298
TAILINGS FACILITY		\$999,674	\$0	\$999,674	\$0	\$999,674
ROCK PILE		\$1,420,840	\$0	\$1,420,840	\$0	\$1,420,840
BUILDINGS AND EQUIPMENT		\$976,357	\$0	\$976,357	\$2,223,026	\$3,199,383
CHEMICALS AND CONTAMINATED SOIL MANAGEMENT		\$230,089	\$0	\$230,089	\$234,432	\$464,521
CONTRACTOR INDIRECTS		\$2,544,323		\$2,544,323	\$1,484,694	\$4,029,017
SURFACE AND GROUNDWATER MANAGEMENT		\$246,230		\$246,230	\$0	\$246,230
INTERIM CARE AND MAINTENANCE		\$70,567		\$70,567	\$0	\$70,567
	SUBTOTAL: Capital Costs	\$6,734,378	\$0	\$6,734,378	\$3,942,152	\$10,676,530
	PERCENT OF SUBTOTAL		0%	100%		
INDIRECT COSTS		cost	LAND LIABILITY	WATER LIABILITY	Reduction October 2020	Security as at May 2020
MOBILIZATION/DEMOB		\$3,291,463	\$0	\$3,291,463	\$396,062	\$3,687,525
POST-CLOSURE MONITORING AND MAINTENANCE		\$936,257	\$0	\$936,257	\$0	\$936,257

INDIRECT COSTS		cost	LAND LIABILITY	WATER LIABILITY	Reduction October 2020	Security as at May 2020	CIRNAC letter of total remaining at Oct 2020 (total did not add
MOBILIZATION/DEMOB		\$3,291,463	\$0	\$3,291,463	\$396,062	\$3,687,525	
POST-CLOSURE MONITORING AND MAINTENANCE		\$936,257	\$0	\$936,257	\$0	\$936,257	
ENGINEERING	4%	\$257,974	\$0	\$257,974	\$172,337	\$430,311	\$255,576
PROJECT MANAGEMENT - CONTRACTOR	3.62%	\$233,906	\$0	\$233,906	\$155,965	\$389,871	\$230,961
PROJECT MANAGEMENT - LMI	1.38%	\$88,562	\$0	\$88,562	\$59,456	\$148,018	\$88,510
HEALTH AND SAFETY PLANS/MONITORING & QA/QC	0%	\$0	\$0	\$0.00	\$0	\$0	
BONDING/INSURANCE	1%	\$64,494	\$0	\$64,494	\$43,084	\$107,578	\$63,894
CONTINGENCY	29.58%	\$2,966,721	\$0	\$2,966,721	\$215,421	\$3,182,142	\$3,036,725
MARKET PRICE FACTOR ADJUSTMENT	0%	\$0	\$0	S0	SO.	\$0	<u>.</u>
	SUBTOTAL: Indirect Costs	\$7,839,376.11	\$0	\$7,839,376.11	\$1,042,325	\$8,881,701	<u>.</u>
							<u>.</u>
TOTAL COSTS		\$14,573,754	\$0	\$14,573,754	\$4,984,477	\$19,558,231	

Check Sums

ACTIVITY/MATERIAL	Notes	Unit	Qty	Code	Unit Cost	Cost % Land	Land Cost	Water Cost
CONTROL ACCESS								
Fence		m		#N/A	\$0.00	\$0	\$0	\$1
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	
Concrete wall in portal		m3		#N/A	\$0.00	\$0	\$0	
Backfill portal #1	Plug portal with waste rock - 10 m long	m3	250	DRS	\$2.06	\$515	\$0	
Remove CMP	riag portar mar maste rook from long	m2		BRS1L	\$45.00	\$0	\$0	\$
Backfill portal #2		m3		#N/A	\$0.00	\$0	\$0	
Cap raises - 5 total		m3	0	RRSS	\$85.656.00	\$0	\$0	
Cap raises - 3 total Cap raise #2		m3	U	#N/A	\$0.00	\$0	\$0	
Cap shaft #1		m3		#N/A	\$0.00	\$0	\$0	
Cap shaft #1 Cap shaft #2		m3		#N/A	\$0.00	\$0	\$0	
Cap snart #2 Backfill adits	0			#N/A	\$0.00	\$0 \$0	\$0 \$0	
	Covered in portal backfill	m3	0					
Backfill open stope	Esker cap over backfilled West Zone	m3	0	SC4S	\$3.98	\$0	\$0	
Concrete cap over open stope		m3		#N/A	\$0.00	\$0	\$0	
Crown Pillar Study		each	0	#N/A	\$25,000.00	\$0	\$0	\$
CROWN PILLAR BLASTING FOR STORA	GE							
Pump out water from crown pillars		m3	5,250	POCS	\$1.57	\$8,243	\$0	\$8,242.5
West Zone		m3	9,250	#N/A	\$25.68	\$237,540	\$0	
Central Zone		m3	0	#N/A	\$0.00	\$0	\$0	
East Zone		m3	0	#N/A	\$0.00	\$0	\$0	\$
Shafts		m3	0	#N/A	\$0.00	\$0	\$0	\$
REMOVE HAZARDOUS MATERIALS								
Remove hazardous materials, U/G labor		manhrs		#N/A	\$0.00	\$0	\$0	\$
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		kg		#N/A	\$0.00	\$0	\$0	S
Other				#N/A	\$0.00	\$0	\$0	S
INSTALL BULKHEADS								
Bulkheads to control water flow		each		#N/A	\$0.00	\$0	\$0	s
Grout bulkhead		m3		#N/A	\$0.00	\$0	\$0	
FLOOD MINE				21471	ψ0.00	Ų.	\$ 0	<u> </u>
Supply/install pump		each		#N/A	\$0.00	\$0	\$0	s
Supply/install piping system		each		#N/A	\$0.00	\$0	\$0	
				#N/A		\$0	\$0	
Operate pumps to flood workings Other		m3		#N/A #N/A	\$0.00 \$0.00	\$0 \$0	\$0 \$0	
	0.40			#IN/A	\$0.00	\$0	\$0	\$
INSTALL GROUNDWATER COLLECTION	SYSIEM	_						
Excavate/install sumps		m2		#N/A	\$0.00	\$0	\$0	
nstall 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	\$246,298	\$0	
					% of Total		0%	1009

eave in place and cove

Not as a second of the board the dead of a second by second and the second by

Included in 1.0 m cover on "dome" area

Final FCRP now proposes to blast 9250 m3 in West Zone only.

Cost basis: \$22.84 / kg explosive @ 0.44 kg/tonne. Assumed 2.56 tonne/m3.

1 Tailings Impoundment Name:

ACTIVITY/MATERIAL			Cost		Lan		
CONTROL ACCESS	Notes	Units	Quantity Code	Unit Cost	Cost d	Water Cost	
Fence		m	#N/A	\$0.00	\$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	
Other		1113	#N/A	\$0.00	\$0	\$0 \$0	
STABILIZE EMBANKMENT(S)			#IV/A	Ψ0.00	ΨΟ	ΨΟ	
Toe buttress, drainage layer		m3	#N/A	\$0.00	\$0	\$0	
Toe buttless, drainage layer	Disco seems selected have to reneit	1113	#IV/A	Ψ0.00	ΨΟ	ΨΟ	
Toe buttress, bulk fill	Place coarse esker toe berm to repair wave cut on K Dam	m3	17000 SC1S	\$2.74	\$46,580	\$46,580.00	
Rip rap		m3	0 RR3L	\$7.00	\$0	\$0.00	
Vegetate		ha	#N/A	\$0.00	\$0	\$0.00	
Raise crest		m3	#N/A	\$0.00	\$0	\$0.00	
Flatten slopes	Flatten granular fill on Pond 2 side of D		7500 #N/A	\$2.53	\$18,975	\$18.975.00	
Other	Flatteri grandiai illi oli Fond 2 side oi L	m3	#N/A	\$0.00	\$18,975	\$0.00	
COVER TAILINGS		1113	#IN/A	Ψ0.00	ΨΟ	Ψ0.00	
Grade/shape tailings surface		m3	SC3S	\$4.01	\$0	\$0.00	
Liner bedding		m3	#N/A	\$0.00	\$0	\$0.00	
Subgrade preparation - compact		m2	#N/A	\$0.00	\$0	\$0.00	
Supply geotextile/geosynthetic		m2	#N/A	\$0.00	\$0	\$0.00	
Install geotextile/geosynthetic		m2	#N/A	\$0.00	\$0	\$0.00	Overallity and detail are of 0040
Soil cover	Cell 3 (86,000 m3)	m3	86000 SC3S	\$4.01 \$4.01	\$344,860 \$410,045	\$344,860.00	Quantity updated as of 2019.
Soil cover	Cell 5 (104,500 m3)	m3	104500 SC3S	\$4.01	\$419,045 \$0	\$419,045.00	
Vegetate	Place caker caves as tall's as a series	m2	#N/A	\$0.00	\$0	\$0.00	
Cover tailings exposed in Cell 4	Place esker cover on tailings exposed at lower water level in Cell 4	m3	14000 SC3S	\$4.01	\$56,140	\$56,140.00	
BURY PAG ROCK / TAILINGS							
Relocate PAG rock		m3	#N/A	\$0.00	\$0	\$0.00	
Place cover over PAG rock		m3	#N/A	\$0.00	\$0	\$0.00	
Raise crest of dam		m3	#N/A	\$0.00	\$0	\$0.00	
Remove tailings from emergency dump ponds	Excavate and relocate to TCA Cell 5	m3	300 #N/A	\$7.92	\$2,376	\$2,376.00	
STABILIZE DECANT SYSTEM							
Remove and dispose of syphons (8) from J D	am and Dam 1A	m	200 PLRL	\$22.00	\$4,400	\$4,400.00	
Excavate and replace		m3	#N/A	\$0.00	\$0	\$0.00	
Plug/backfill with concrete or clay		m3	#N/A	\$0.00	\$0	\$0.00	
Other			#N/A	\$0.00	\$0	\$0.00	
REMOVE TAILINGS DISCHARGE							
Cyclones		m3	#N/A	\$0.00	\$0	\$0.00	
Pipe		m	4000 PLRS	\$4.75	\$19,000	\$19,000.00	Includes both freshwater pipeline, and tailings pipeline.
Remove reclaim barge		allow	#N/A	\$0.00	\$0	\$0.00	полаво волитовиналь ррошно, ана ганидо ррошно
CONSTRUCT DIVERSION DITCHES		allow	#IN/A	Ψ0.00	ΨΟ	Ψ0.00	
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	
FLOOD TAILINGS		1113	#IV/A	Ψ0.00	ΨΟ	ΨΟ	
Doze tailings to final contour		m3	#N/A	\$0.00	\$0	\$0	
Raise crest of dam		m3	#N/A	\$0.00	\$0	\$0	
Other		IIIO	#IN/A		φU		
			#NI/A		60		
			#N/A	\$0.00	\$0	\$0	
UPGRADE SPILLWAYS	Remove culvert and rin ran remaining	10					
UPGRADE SPILLWAYS Cell 4 Outlet	Remove culvert and rip rap remaining a	LS m3	1 #N/A	\$19,009.00	\$19,009	\$19,009.00	To be constructed later by I MI
UPGRADE SPILLWAYS	Spillway on Dam 1A and Dam J	LS m3 m3					To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete	Spillway on Dam 1A and Dam J Cover the spillway invert and channel	m3 m3	1 #N/A 12350 SB1L #N/A	\$19,009.00 \$4.30 \$0.00	\$19,009 \$53,105 \$0	\$19,009.00 \$53,105.00 \$0.00	
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete	Spillway on Dam 1A and Dam J	m3	1 #N/A 12350 SB1L	\$19,009.00 \$4.30	\$19,009 \$53,105	\$19,009.00 \$53,105.00	To be constructed later by LMI. To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3	1 #N/A 12350 SB1L #N/A	\$19,009.00 \$4.30 \$0.00	\$19,009 \$53,105 \$0	\$19,009.00 \$53,105.00 \$0.00	
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44	\$19,009 \$53,105 \$0 \$6,552 \$9,632	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavates seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 ha m3	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextille CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Bedding layer Supply geomembrane	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 ha m3 m2	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextille CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 ha m3 m2 m2	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Install geomembrane Erosion protection layer	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 ha m3 m2	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION S	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 ha m3 m2 m2 m3	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextille CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Bedding layer Supply geomembrane Install geomembrane Install geomembrane Install GROUNDWATER COLLECTION SY Excavate/install sumps	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 ha m3 m2 m2 m3	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumping wells	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 m3 m2 m2 m3 m3 m3 m3	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumps/pipelines/power supply	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 ha m3 m2 m2 m3	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0	To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION S' Excavate/install sumps Install pumping wells Install pumps/pipelines/power supply SPECIALIZED ITEMS	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap. D	m3 m3 m3 m2 m3 m3 m4 m3 m2 m2 m3 m3 LS	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumping wells Install pumping wells Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & te	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap. D	m3 m3 m3 m2 m3 m3 m3 m2 m2 m3 m3 m3 m3 m3 exception and selection and se	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextille CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumping wells	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 m4 m3 m2 m2 m3 m3 LS	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 m3 m2 m2 m3 m3 m3 m3 m3 exception and selection and se	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextille CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Bedding layer Supply geomembrane Install geomembrane Install geomembrane Install geomembrane Install pumping wells Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & te Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management TREAT SUPERNATANT	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m3 m2 m3 m3 m3 m2 m2 m3 m3 m3 m3 m3 exception and selection and se	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumping wells Install pumping wells Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & te Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management TREAT SUPERNATANT Pump water (to pit, U/G)	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m2 m3 ha m3 m2 m3 m3 LS each each	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & tel Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management TREAT SUPERNATANT Pump water (to pit, U/G) Equipment maintenance and parts	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m2 m3 m3 m3 m2 m3 m3 m3 m4 m3 m2 m3	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & tel Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management TREAT SUPERNATANT Pump water (to pit, U/G) Equipment maintenance and parts	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m2 m3 m3 m2 m2 m3 m3 m3 m2 m3 m3 m3 Ls	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & tel Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management TREAT SUPERNATANT Pump water (to pit, U/G) Equipment maintenance and parts	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap.	m3 m3 m2 m3 m3 m2 m2 m3 m3 m3 m2 m3 m3 m3 Ls	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & tel Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management TREAT SUPERNATANT Pump water (to pit, U/G) Equipment maintenance and parts	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap. D YSTEM Allowed for on "Water Management" sheet	m3 m3 m2 m3 m3 m2 m2 m3 m3 m3 m2 m3 m3 m3 Ls	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumpns/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & te Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management TREAT SUPERNATANT Pump water (to pit, U/G) Equipment maintenance and parts Supply reagents	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap. D YSTEM Allowed for on "Water Management" sheet because it will be a one-time	m3 m3 m2 m3 m3 m3 m2 m3 m3 m3 LS each each	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Vegetate spread material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumps/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & tel Install permanent instrumentation, drilling	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap. D YSTEM Allowed for on "Water Management" sheet	m3 m3 m2 m3 m3 m2 m2 m3 m3 m3 m2 m3 m3 m3 Ls	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.
UPGRADE SPILLWAYS Cell 4 Outlet Excavate channel, soil Concrete Rip rap Geotextile CONSTRUCT SEEPAGE COLLECTION PON Excavate seepage collection pond Doze & spread excavated material Bedding layer Supply geomembrane Install geomembrane Erosion protection layer INSTALL GROUNDWATER COLLECTION SY Excavate/install sumps Install pumpns/pipelines/power supply SPECIALIZED ITEMS Install permanent instrumentation, supply & te Install permanent instrumentation, drilling TREAT SEEPAGE - see "Water Management TREAT SUPERNATANT Pump water (to pit, U/G) Equipment maintenance and parts Supply reagents	Spillway on Dam 1A and Dam J Cover the spillway invert and channel slopes to 2 m flow depth using rip rap recovered from dam slopes. Place under spillway rip rap. D YSTEM Allowed for on "Water Management" sheet because it will be a one-time	m3 m3 m2 m3 m3 m3 m2 m3 m3 m3 LS each each	1 #N/A 12350 SB1L #N/A 936 RR3L 2800 GSTL #N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A	\$19,009.00 \$4.30 \$0.00 \$7.00 \$3.44 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$19,009 \$53,105 \$0 \$6,552 \$9,632 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$19,009.00 \$53,105.00 \$0.00 \$6,552.00 \$9,632.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	To be constructed later by LMI. To be constructed later by LMI. Completed by Stantec in summer 2019.

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

R	nck	Pile	Nan	10

		Cost		%	Land		
ACTIVITY/MATERIAL Notes	Units	Quantity Code	Unit Cost	Cost Land	d Cost	Water Cost	
STABILIZE SLOPES				_		_	
Flatten slopes with dozer	m3	#N/A	\$0.00	\$0	\$0	\$0	
Flatten "bubble dump" areas	m3	#N/A	\$0.00	\$0	\$0	\$0	
Divert runon, ditch mat'l A	m3	#N/A	\$0.00	\$0	\$0	\$0	
Divert runon, ditch mat'l B	m3	#N/A	\$0.00	\$0	\$0	\$0	
Toe buttress, drain mat'l	m3	#N/A	\$0.00	\$0 \$0	\$0	\$0	
Toe buttress, fill mat'l A	m3	#N/A	\$0.00	\$0 \$0	\$0 \$0	\$0	
Toe buttress, fill mat'l B Other	m3	#N/A #N/A	\$0.00 \$0.00	\$0	\$0 \$0	\$0 \$0	
COVER ROCK PILE		#19/75	\$0.00	φυ	φU	φ0	
Subgrade preparation - doze surface	m3	#N/A	\$0.00	\$0	\$0	\$0	
Mine Site Soil Cover - Quadrant 1 - excavate,haul,spread&compact	m3	61,500 SC4S	\$3.98	\$244,770	\$0	\$244,770.00	Area per Commitment 5.
Mine Site Soil Cover -Quadrant 2 - excavate,haul,spread&compact	m3	54,500 SC4S	\$3.98	\$216,910	\$0	\$216,910.00	Area per Commitment 5.
Mine Site Soil Cover -Quadrant 3 - excavate,haul,spread&compact	m3	57,100 SC4S	\$3.98	\$227,258	\$0	\$227,258.00	Area per Commitment 5.
Mine Site Soil Cover -Quadrant 4 - excavate,haul,spread&compact	m3	57,892 SC4S	\$3.98	\$230,410	\$0	\$230,410.16	Area per Commitment 5.
Mine Site Soil - Shop Area - excavate,haul, spread&compact	m3	1,008 SC4S	\$3.98	\$4,012	\$0	\$4,011.84	Area per Commitment 5.
		#81/0	#0.00		r.o.		
Rock cover - excavate,haul & spread Excavate downslope drainage channel & chute	m3 m3	#N/A #N/A	\$0.00 \$0.00	\$0 \$0	\$0 \$0	\$0 \$0	
Rip rap drainage channel and chute	m3 m3	#N/A #N/A	\$0.00	\$0 \$0	\$0 \$0	\$0 \$0	
Vegetate	ha	#N/A	\$0.00	\$0 \$0	\$0	\$0	
Other	168	#N/A	\$0.00	\$0	\$0	\$0	
VERY LOW PERMEABILITY COVER (in addition to above)		#1975	Ψ0.00	Ψ0	ΨΟ	ΨΟ	
Liner subgrade preparation - compact	m2	#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	
Protective cover - excavate,haul,spread&compact	m3	#N/A	\$0.00	\$0	\$0	\$0	
Vegetate	ha	#N/A	\$0.00	\$0	\$0	\$0	
Install infiltration/seepage instrumentation	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	m3	#N/A	\$0.00	\$0	\$0	\$0	
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 INSTALL GROUNDWATER COLLECTION SYSTEM	m3	#N/A	\$0.00	\$0	\$0	\$0	
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	allow	#N/A	\$0.00	\$0	\$0	\$0	
CONSOLIDATE ROCK INTO CENTRAL AREA	unon	77.07.1	ψ0.00	Ų.	•	ψ0	
Mine Site - Quadrant 1 Load, haul, dump or doze	m3	50,500 RR4S	\$2.48	\$125,240	\$0	\$125,240.00	
Mine Site - Quadrant 2 Load, haul, dump or doze	m3	43,500 RR4S	\$2.48	\$107,880	\$0	\$107,880.00	
Mine Site - Quadrant 3 Load, haul, dump or doze	m3	47,300 RR4S	\$2.48	\$117,304	\$0	\$117,304.00	
Mine Site - Quadrant 4 Load, haul, dump or doze	m3	49,700 RR4S	\$2.48	\$123,256	\$0	\$123,256.00	
Add lime	tonne	#N/A	\$0.00	\$0	\$0	\$0.00	
Contour area of rock left in place	m2	0 DRL	\$1.05	\$0	\$0	\$0.00	Contouring included in rock placement costs
Environmental Site Assessment	allow	0 #N/A	\$200,000	\$0	\$0	\$0.00	
SPECIALIZED ITEMS							
Install permanent instrumentation Thermistor strings in rock dome area	each	10 #N/A	\$2,000.00	\$20,000	\$0	\$20,000.00	New item - by LMI
Install permanent instrumentation, drilling 2 hours excavator for each installation	hrs	20 exc-sL	\$190.00	\$3,800	\$0	\$3,800.00	New item - by LMI
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	\$0	
Cyanice destruction water treatment pumping Reagents	tonnes	#N/A #N/A	\$0.00	\$0 \$0	\$0 \$0	\$0 \$0	
Electrician/mechanic to maintain treatment plant	allow	#N/A #N/A	\$0.00	\$0 \$0	\$0	\$0	
Electrican/mechanic to maintain treatment plant Equipment maintenance and parts	allow	#N/A #N/A	\$0.00	\$0 \$0	\$0	\$0	
- деф	anow		atment costs	\$0	Ψ	υψ	
Number of years of treatment	years	,		Ψū			
	,00.0	Total trea	atment costs	\$0		\$0	
HEAP LEACH SEEPAGE TREATMENT - ARD/ML						7.	
Upgrade/modify pumping system - report to WTP	allow	#N/A	\$0.00	\$0		\$0	
			Total	\$1,420,840	\$0	\$1,420,840	
			% of Total		0%	100%	
-							

0 Chemicals/Soil Area Name

Note: The procedures, equipment and pictologing for clean up and removal of chemicals or contaminated soils are highly dependent on the nature of the chemicals and their extensing state of contaminent. Government guidelines should be consulted on an individual chemical basis. Any estimate made here should be considered way notify unless specific voluntions have been condition.

CTIVITY/MATERIAL	Notes	Heite	Quantity	Cost	Unit Cost	% Cost Land	Land	Water Cost			
AZARDOUS MATERIALS AUDIT	NOTES	Units	quantity	code	Omit Cost	COST Land	. cost	Trater COST			
lazardous materials audit		allow	0	#N/A	\$0.00	S0	S0	SO			
UILDING DECONTAMINATION & CONSOL	IDATION OF HAZARDOLIS MATERIALS	allow		mre A	\$0.00	30	\$0	30			
	DISTRICT OF THE PROCESS MATERIALS								Done: Arctic Response 2012 industrial hygeine assessment, Golder		
vestigation of hazardous materials		allow	0	#N/A	\$20,000.00	\$0	\$0	\$0.00	2017 ACM survey		
nvironmental technician/coordinator		mandays		#N/A	\$0.00	\$0	\$0	\$0.00			
lecontaminate: oil, fuel and glycol systems		m2	0	#N/A	\$22.80	\$0	\$0	\$0.00		8490	19
lecontaminate maintenance shop		mandays		#N/A	\$0.00	\$0	\$0	\$0.00			
econtaminate power plant		mandays		#N/A	\$0.00	\$0	\$0	\$0.00			
econtaminate bulk fuel storage		mandays		#N/A	\$0.00	\$0	\$0	\$0.00			
econtaminate ANFO plant		mandays		#N/A	\$0.00	\$0	\$0	\$0.00			
econtaminate offices/warehouse/accom		mandays		#N/A	\$0.00	\$0	\$0	\$0.00			
emove all asbestos containing materials	Safe disposal in landfill	m3	50	#N/A	\$817.20	\$40,860	\$0	\$40,860.00		50	40.
AZARDOUS MATERIALS REMOVAL											
	Assumed		5.940	0011	\$1.20	\$7,128	SO	\$7,128.00			
faste oils	Assumed	litre	5,940	UKH	\$1.20	\$7,128	\$0	\$7,128.00			
				on		045.500	-	045 500 50	Allowance to burn excess fuel brought to site. 100 drums to be left		
laste fuel		litre	36,113	URL	\$0.43	\$15,529	\$0	\$15,528.59	for oost-closure use.		
/aste batteries		kg	500	#N/A	\$0.00	\$0	\$0	\$0.00	In other hazardous materials below		
ssay & environmental lab reagents		kg	550	#N/A	\$0.00	\$0 \$0	\$0	\$0.00			
lachine shop paints, solvents etc.		liter	5.000		\$0.00	\$0	SO.	\$0.00	In other hazardous materials below		
lycol		liter	5,000	#N/A	\$0.00	\$0 \$0	\$0 \$0	\$0.00	III colei hazaroous materiais below		
ocess reagents		kg		#N/A	\$0.00	\$0	SO.	\$0.00			
uclear sources		allow		#N/A	\$0.00	\$0 \$0	\$0 \$0	\$0.00			
ther hazardous materials	Non-ACM to Yellowknife - Assumed Qtv.		15.840	PCRL	\$0.45	\$7.128	\$0	\$7,128.00			
AZARDOUS MATERIALS	Non-ALM to Yellowknite - Assumed City.	kg	15,840	PURL	\$0.45	\$7,128	\$0	\$7,128.00			
ansportation to disposal facility		allow		#N/A	\$0.00	\$0	\$0	\$0.00			
sposal fees		allow		#N/A	\$0.00	\$0	\$0	\$0.00			
on-ACM hazardous materials				#N/A	\$0.00	\$0	\$0	\$0.00			
ONTAMINATED SOILS											
ontam. soil investigation - Phase 1		each		#N/A	\$0.00	\$0	\$0	\$0.00			
ontam. soil investigation - Phase 2 ONTAMINATED SOIL REMOVAL	Additional investigation of ARD drainage	each	0	CS1L	\$7,500.00	\$0	\$0	\$0.00	Completed July, 2019		
HERA for Removal of Contaminated Soils	Assessment on Phase 1 and 2 ESA Data	allow	0	#N/A	\$20,000.00	SO.	S0	\$0.00	Completed October, 2019		
xcavate and transport to onsite facility		m3	0	SC3S	\$4.01	SO.	SO.	\$0.00			
onstruct 4 additional landfarm cells		LS	0	#N/A	\$180,000.00	\$0	\$0	\$0.00	Will not construct additional cells.		
cavate treated soils and move to undergre	ound	m3	500	#N/A	\$2.29	\$1,145	\$0	\$1,145.00			
anage hydrocarbon remediation at facility		m3		CSRL	\$47.00	\$0	\$0	\$0.00			
oad, haul and dump into crown pillar	PHC Soils	m3	34,700		\$1.95	\$67,665	\$0	\$67,665.00			
pe-2	As, CN- and PbNO3 to crown pillars	m3	16,700	#N/A	\$2.22	\$37,074	\$0	\$37,074.00			
pe-3		m3		#N/A	\$0.00	\$0	\$0	\$0.00			
imber/boneyard contaminated soils	Excavate and move to crown pillars	m3	1,966	#N/A	\$2.74	\$5,387	\$0	\$5,386.84			
aste rock from mill laydown area	Excavate and move to crown pillars	m3	21,700	#N/A	\$2.22	\$48,174	\$0	\$48,174.00			
eagents/stabilizing agent		m2		#N/A	\$0.00	\$0	\$0	\$0.00			
xcavate and transport to offsite facility		m3		#N/A	\$0.00	\$0	\$0	\$0.00			
ontour decontaminated area		m3		#N/A	\$0.00	\$0	\$0	\$0.00			
ONTAMINATED SOIL VERY LOW PERME	ABILITY COVER				40.41						
apply geomembrane, HDPE, ES3, GCL		m2 m3		#N/A #N/A	\$0.00 \$0.00	\$0 \$0	\$0 \$0	\$0.00 \$0.00			
oper and lower bedding layers stall geomembrane, HDPE, ES3, GCL		m3 m2		#N/A	\$0.00 \$0.00	\$0 \$0	\$0 \$0	\$0.00			
stall geomemorane, HDPE, ES3, GCL osion protection layer		m2 m3		#N/A	\$0.00	\$0 \$0	\$0 \$0	\$0.00			
getate		m2		#N/A	\$0.00	\$0	\$0	\$0.00			
stall infiltration/seepage instrumentation		allow		#N/A	\$0.00	\$0	\$0	\$0.00			
ther				#N/A	\$0.00	\$0	\$0	\$0.00			
THER				#N/A	\$0.00	80	SO	\$0.00			
				#N/A						0.001.001.10	
					Total % of Total	\$230,089	\$0 0%	\$230,089		\$464,521.43	\$23

Reclaim 7.0 Project: Lupin Gold Mine

Building / Equip Name:				Bldg / Equip #: <u>1</u>						
CTIVITY/MATERIAL	Notes	Units	Cost Quantity Code	Unit Cost	% Cost La		ater Cost			
SPOSE MOBILE EQUIPMENT										
econtaminate and ship off-site		allow	#N/A	\$0.00	\$0	\$0	\$0			
econtaminate and dispose on-site landfill		m3	0 #NA	\$30.49	\$0	\$0	\$0.00		540	30.49
her MOVE BUILDINGS - see note below			#N/A	\$0.00	\$0	\$0	\$0			
commodation Complex 2020 - Kitchen,										
creation, 100, 200, 300, 400, 900, 1000,										
00, 1200 commodation Complex 20221 - Offices,		m2	0 #N/A	\$28.13	\$0	\$0	\$0.00		4451	\$28.13
0, 600, 700, 800, 1000, 300		m2	2,878 #N/A	\$28.13	\$80,958	\$0	\$80,958.14			
ist Room and Travel Ways		m2	0 #N/A	\$203.30	\$0	\$0	\$0.00	\$0.00	463	\$203.30
aft House		m2	0 #N/A	\$203.30	\$0	\$0	\$0.00		1253	\$203.30
arehouse		m2	0 #N/A	\$70.72	\$0	\$0	\$0.00		4671	\$70.72
l werhouse		m2	0 #N/A 0 #N/A	\$208.72 \$115.48	\$0	\$0	\$0.00		2864	\$208.72
werhouse adframe		m2 m2	0 #N/A 0 #N/A	\$115.48 \$203.32	\$0 \$0	\$0 \$0	\$0.00 \$0.00		1645 413	\$115.48 \$203.32
lock Building and Fresh air Intake		m2	0 #N/A	\$29.84	\$0	\$0	\$0.00		366	\$203.32
stefill Plant	Pastefill plant has already been removed.	m2	#N/A	\$0.00	\$0	\$0	\$0.00	Landfarm slab will be punctured and then covered under the "dome".	000	Q25.04
ld Storage 2 buildings		m2	1855 #N/A	\$50.59	\$93,844	\$0	\$93,844.45			
rface Mobile Shop		m2	1008 #N/A	\$50.59	\$50,995	\$0	\$50,994.72	Shop will be left in place to support post-closure.		
penter Shop		m2	0 #N/A	\$50.59	\$0	\$0	\$0.00		482	\$50.59
Treatment Plant Building		m2	177 #N/A	\$50.59	\$8,954	\$0	\$8,954.43	As treatment plant will be left in place		
mphouse		m2 m2	74 #N/A 412 #N/A	\$124.53 \$124.53	\$9,215	\$0 \$0	\$9,215.22			
plosives Storage e house		m2 m2	412 #N/A 0 #N/A	\$124.53 \$29.84	\$51,306 \$0	\$0 \$0	\$51,306.36 \$0.00		31	\$29.84
nergency Power House		m2	0 #N/A	\$29.84	\$0	\$0	\$0.00		117	\$29.84
eather Station and Storage Buildings		m2	0 #N/A	\$29.84	\$0	\$0	\$0.00		566	\$29.84
op		m2	379 #N/A	\$29.84	\$11,309	\$0	\$11,309.36		230	
tch Plant		m2	0 #N/A	\$29.84	\$0	\$0	\$0.00		118	\$29.84
V Building		m2	0 #N/A	\$29.84	\$0	\$0	\$0.00		172	\$29.84
orage Facility at Laydown/Airstrip		m2	#N/A	\$0.00	\$0	\$0	\$0.00	Previously removed		
el tanks -2020 - all tanks excluding tanks and 14	Main Tank Farm	m2	1,298 BRS1S	\$68.49	\$88,900	\$0	\$88,900.02		6792	\$68.49
el tanks - 2021 - tanks 13 and 14	Main Tank Farm	m2	400 BRS1S	\$68.49	\$27.396	\$0	\$27.396.00		0702	400.40
el tanks	Satellite Tank Farm	m2	989 BRS1S	\$68.49	\$67,737	\$0	\$67,736.61			
el Tanks	Piping removal and disposal	m2	2,000 PLRS	\$0.00	\$0	\$0	\$0.00	Included in the above items		
shwater intake		m2	0 BRCS	\$128.00	\$0	\$0	\$0.00	Included as "pumphouse" above		
claim pumps		m2	#N/A	\$0.00	\$0	\$0	\$0.00			
sh sewage pipelines		LS	1 #N/A	\$7,128.00	\$7,128	\$0	\$7,128.00			
strip lighting, navigation, electrician		mandays	#N/A #N/A	\$0.00	\$0 \$0	\$0 \$0	\$0.00			
strip lighting, navigation, mechanical	Use hoe ram to puncture slabs. Leave in	mandays		\$0.00			\$0.00			
eak foundation slabs	place and cover.	m2	15,000 #N/A	\$4.02	\$60,300	\$0	\$60,300.00			
oneyard debris and steel from tanks	Place in landfill	m3	20,000 #N/A	\$9.14	\$182,800	\$0	\$182,800.00			
her NDFILL FOR DEMOLITION WASTE		m2	#N/A	\$0.00	\$0	\$0	\$0.00			
ace rock cover	10.650 + 500 to fill voids	m3	11.150 RR4S	\$3.07	\$34,231	\$0	\$34,230,50			
ace soil cover	10,000 1 000 10 111 1010	m3	13.500 SB4L	\$3.95	\$53,325	\$0	\$53,325.00			
ean burn pit and incinerator	Dispose waste in on-site landfill	LS	1 #N/A	\$11,880.00	\$11,880	\$0	\$11,880.00			
eration of landfill		LS	0 #N/A	\$240,000.00	\$0	\$0	\$0.00	Included in placement.		
ad, haul and dump in landfill		m3	30,000 SB1S	\$3.07	\$92,100	\$0	\$92,100.00			
getate		ha	#N/A	\$0.00	\$0	\$0	\$0.00			
ADE AND CONTOUR PADS										
ade/Contour Entire Mine Site Area ace 0.3 m granular fill over slabs	Covered under "Rock Pile" tab	m2 m3	0 DRL 0 SB4L	\$1.05 \$5.50	\$0 \$0	\$0 \$0	\$0 \$0	Covered by general 1.0 m "dome" cover.		
ce 0.3 m granular fill over slabs commodation Complex		m3 ha	0 SB4L #N/A	\$5.50 \$0.00	\$0 \$0	\$0 \$0	\$0 \$0	Covered by general 1.0 III duline cover.		
commodation Complex icess Facilities		na ha	#N/A #N/A	\$0.00	\$0	\$0 \$0	\$0			
lices, Repair, Lab, Warehouse		ha	#N/A	\$0.00	\$0	\$0	\$0			
orage Facilities		ha	#N/A	\$0.00	\$0	\$0	\$0			
ater and Wastewater Treatment Facilities		ha	#N/A	\$0.00	\$0	\$0	\$0			
G Heating Plant		ha	#N/A	\$0.00	\$0	\$0	\$0			
nulsion Plant		ha	#N/A	\$0.00	\$0	\$0	\$0			
arehouse, Shops and Other		ha	#N/A	\$0.00	\$0	\$0	\$0			
ace rock cover		m3	#N/A	\$0.00	\$0	\$0	\$0			
getate her		ha m3	#N/A #N/A	\$0.00 \$0.00	\$0 \$0	\$0 \$0	\$0 \$0			
NCTURE LINED SUMPS		1113	#IN/A	\$0.00	ąu	ψU	ψU			
ncture liner and place soil cover		m3	#N/A	\$0.00	\$0	\$0	\$0			
CLAIM ROADS		0		*****						
move culverts		each	22 #N/A	\$199.00	\$4,378	\$0	\$4,378.00	Includes culvert removal and road scarification.		
move bridges		each	#N/A	\$0.00	\$0	\$0	\$0.00			
arify and install water breaks		ha	#N/A	\$0.00	\$0	\$0	\$0.00			
arify airstrip	Airstrip will stay in place	ha	#N/A	\$0.00	\$0	\$0	\$0.00			
arify laydown areas	Scarify roads and grade	ha	0 SCFYH	\$6,030.00	\$0	\$0	\$0.00	Item for culvert removal includes road scarification.		
getate	Grade and contour esker borrow area	ha m3	#N/A 180 000 DSS	\$0.00 \$0.22	\$0 \$39,600	\$0 \$0	\$0.00			
	Chade and contour easer porrow died	1113	.50,000 200	90.22	φυσ,υυυ	40	φοσ,σου.00			
					\$0	\$0	\$0			
ECIALIZED ITEMS pose of misc. debris and laydown area re	fuse		#N/A	\$0.00		30	20			
	fuse		#N/A	\$0.00 Total	\$976,357	\$0 0%	\$976,357 100%		\$3,199,383	\$2, \$2.

\$2,528,102.84

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

ACTIVITY/MATERIAL	Notes	Units Q	Cos		Cost	
BREACH DYKE EMBANKMENT			, 000		300.	
Jpper and Lower Sewage Lakes	Excavate spillways and place rip rap	LS	1 #N/	\$11,880.00	\$11,880.0	
Rip rap slope protection	3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	m3	0 RR4L	\$7.60	\$0	
Contour water intake area		m3	#N/		\$0	
STABILIZE SEDIMENT PONDS/WATER	R MANAGEMENT PONDS			****	•	
Place soil cover		m3	#N/	A \$0.00	\$0	
Doze & spread excavated material		m3	#N/		\$0	
/egetate spread material		ha	#N/		\$0	
Rip rap in channel base		each	#N/		\$0	
REDIRECT RUNOFF/CONSTRUCT DIV	ERSION DITCHES	Cacii	#14/	Ψ0.00	ΨΟ	
Excavate ditches -soil	EKOION BITOTIEG	m3	#N/	A \$0.00	\$0	
Excavate ditches -rock		m3	#N/		\$0	
Stabilize side slopes		m3	#N/		\$0	
Rip rap in channel base		m3	#N/		\$0	
· ·		III3	#IN/	4 \$0.00	\$0	
BREACH DITCHES		0	40.14		*	
Excavate breaches		m3	#N/		\$0	
Backfill/recontour		m3	#N/		\$0	
nstall flow dissipation		m3	#N/		\$0	
/egetate remainder of ditch		m2	#N/	A \$0.00	\$0	
DECOMISSION FRESH WATER SUPP						
Breach embankment	Includes on Bldgs & Equipment	m	#N/		\$0	
Remove pump		LS	0 #N/	A \$10,000.00	\$0	Included under Pumphouse in B&E.
Remove pipeline		m	0 PLRS	\$4.75	\$0	Included under "Pipe" on tailings sheet.
VATER CONTROL IN RECLAMATION	QUARRY					
nstall pumping system		LS	#N/	A \$0.00	\$0	
Remove pumping system		LS	#N/	A \$0.00	\$0	
REMOVE PIPELINES						
Remove pipes		m	#N/	A \$0.00	\$0	
Concrete plug deep pipes		m3	#N/	A \$0.00	\$0	
Other			#N/	A \$0.00	\$0	
GROUNDWATER COLLECTION SYSTE	EM					
xcavate/install sumps		m3	#N/	A \$0.00	\$0	
nstall pumping wells		m3	#N/		\$0	
nstall pumps/pipelines/power supply		LS	#N/		\$0	
CONSTRUCT CONTAMINATED WATER	R STORAGE POND				•	
Excavate pond	(010101021010	m3	#N/	A \$0.00	\$0	
Doze & spread excavated material		m3	#N/		\$0	
egetate spread material		ha	#N/		\$0	
			#N/		\$0	
Bedding layer		m3 m2	#N/ #N/		\$0 \$0	
Supply geomembrane						
nstall geomembrane		m2	#N/		\$0	
Frosion protection layer	NOTEM (Otrusted Medica "	m3	#N/	A \$0.00	\$0	
CONSTRUCT PASSIVE TREATMENT S	SYSTEM (e.g. Constructed Wetland)					
Construct access roads		km	#N/		\$0	
nstall HDPE piping system from collecti	on pona	_ m	#N/		\$0	
nter-cell flow structures		allow	#N/		\$0	
nstall liners		m2	#N/		\$0	
nstall growth media		m3	#N/		\$0	
Vetland vegetation		ha	#N/	A \$0.00	\$0	
CONSTRUCT WATER TREATMENT PL	ANT					
Jpgrade treatment plant	Repair existing As treatment plant	LS	1 #N/	\$35,000.00	\$35,000	
Build sludge containment facility	•					
			0 "**	640.050		Unit price per bag of lime includes purchase, delivery.
Freatment Materials - Soda Ash		bag	0 #N/	\$16.250	\$0	application and management.
Freatment Plant Operation	Lime treatment	1 LS	#N/	\$199,350	\$199.350.00	application and management.

For cost of long-term/post-closure water treatment see "WATER TREATMENT" Worksheet"

91250

1 Interim Care and Maintenance

				Cost			
ACTIVITY/MATERIAL	Notes	Units	Quantity	Code	Unit Cost	Cost	
INTERIM CARE & MAINTENANCE							
on-site caretaker		manmonths		#N/A	0	\$0	
Spring extra personnel		manmonths	0	#N/A	13194	\$0	Included in Contractor site maintenance under "Mobilization"
-electrician		manmonths		#N/A	0	\$0	
-mechanic		manmonths	0	#N/A	11517	\$0	Included in Contractor site maintenance under "Mobilization"
annual fuel	Available on site.	litre		#N/A	0	\$0	
misc. supplies	Available on site.	allow		#N/A	0	\$0	
pick-up truck	Available on site.	each		#N/A	0	\$0	
small dozer	Available on site.	allow		#N/A	0	\$0	
small excavator	Available on site.	allow		#N/A	0	\$0	
snow machine	Available on site.	allow		#N/A	0	\$0	
communications		allow	0	#N/A	25000	\$0	Included in Contractor site maintenance under "Mobilization"
SNP/AEMP water sampling & reporting	From "PostClosure" sheet	each	1	#N/A	12360	\$12,360.00	
geotechnical assessment	From "PostClosure" sheet	each	1	#N/A	22923.49	\$22,923.49	
interim water treatment	Covered under "Water Management"			#N/A	0	\$0	
Worker accommodations		mandays	8	#N/A	0.00	\$0	Provided in contract with Contractor.
			Ann	ual Interi	m C&M Cost	\$35,283	
Number of years of IC	M	years	2		Total	\$70,567	<u>.</u>

1 Post-Closure Monitoring & Maintenance:

				Cost		
ACTIVITY/MATERIAL No	otes	Units	Quantity	Code	Unit Cost	Cost
MONITORING & INSPECTIONS						
Annual geotechnical inspection		each	10	#N/A	\$22,923.49	\$229,235
Survey inspection		each		#N/A	\$0.00	\$0
Monitoring years - 10 Inc	ludes Maintenance	Year	3	LMI	\$100,000.00	\$300,000
Regulatory costs*		each		#N/A	\$0.00	\$0
Site water monitoring (AEMP and SNP) Water	ater sampling	each	10	#N/A	\$12,360.00	\$123,600
- Active closure and flooding		each		#N/A	\$0.00	\$0
- Post pit flooding		each		#N/A	\$0.00	\$0
Air Quality Monitoring Program (AQMP) No	t required	each	0	#N/A	\$0.00	\$0
Environmental Effects Monitoring (EEM) after 3	years	each	1	#N/A	\$126,079.00	\$126,079
Wildlife Effects Monitoring Program (WEMP) No	t required	each	0	#N/A	\$0.00	\$0
Vegetation Monitoring		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 Treat	ment"					\$0
Subtotal for first 10 years, undiscounted						\$778.914
Discount rate for calculation of net present value	of post-closure cost. %			3.00%		
Number of years of post-closure activity					years	
Net Present Value of payment stream						\$936.257

^{*}Regulatory costs - annual reporting, management plans, progress reports etc.

One time lime treatment allowed for in "Water Management". No further treatment will be required after the cover is completed.

Annual Discount 3

Annual Discount		3%					
	Geotechnica	l and Water Sampling	Monitoring an	d Maintenance		EEM	
Year	Cost	Discounted Cost	Every 3 years	Discounted Cost	One Time	Discounted Cost	Total Yearly
1	-	-		-		-	-
2	-	-		-		-	-
3	35,283.5	32,289.4	100,000	91,514	126,079	115,380	239,184
4	35,283.5	31,348.9		-		-	31,349
5	35,283.5	30,435.8		-		-	30,436
6	35,283.5	29,549.4	100,000	83,748		-	113,298
7	35,283.5	28,688.7		-		-	28,689
8	35,283.5	27,853.1		-		-	27,853
9	35,283.5	27,041.9	100,000	76,642		-	103,684
10	35,283.5	26,254.2		-		-	26,254
11		-		-		-	-
12		-	100,000	70,138		-	70,138
13		-		-		-	-
14		-		-		-	-
15	35,283.5	22,647.1	100,000	64,186		-	86,833
16		-		-		-	-
17		-		-		-	-
18		-	100,000	58,739		-	58,739
19		-		-		-	-
20		-		-		-	-
21		-	100,000	53,755		-	53,755
22		-		-		-	-
23		-		-		-	
24	05.000 -		100,000	49,193		-	49,193
25	35,283.5	16,851.6		<u> </u>		-	16,852
Net Present Value	ue:	272,960.2		547,916		115,380	936,257

Costs for geotechnical and water sampling in years 1 and 2 are covered in 2 years of interim care and maintenance (see ICM sheet)

1 Mobilization/Demobilization:

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cos
MOBILIZE HEAVY EQUIPMENT						
Mobilize equipment fleet	Trucking costs	LS	0	#N/A	1888200.00	\$
De-mobilize equipment fleet		LS	1	#N/A	1900775.00	\$1,900,77
De-mobilize salvageable equipment and materials		LS	1	#N/A	107479.00	\$107,47
Labour for Mobilization	Labour	LS	0	#N/A	129046.50	s
Labour for Demobilization	Labour	LS	1	#N/A	66478.50	\$66,47
Equipment Fleet	Provision of equipment fleet (rental/depreciation)	LS	0	#N/A	3047802.00	s
Demobilize - Excavator and Rock Truck	via Herc	LS	3	#N/A	20000.00	\$60,00
Excavators		each	0	#N/A	150000	\$
Dump trucks		each	0	#N/A	50000	\$
Dozers		each	0	#N/A	150000	s
Demolition shears		each	0	#N/A	300000	\$
Crane		each	0	#N/A	150000	\$
Loader Compactor		each each	0	#N/A #N/A	150000	\$
Compactor Light duty vehicles		each	0	#N/A	20000	3
MOBILIZE MISC. EQUIPMENT		eaun		men	20000	
Pump shipping		each		#N/A	0	\$
Pipe shipping		m		#N/A	0	s
Minor tools and equipment	Included in mob/demob.	allow	0	#N/A	100000	s
Truck tires		allow		#N/A	0	\$
Other				#N/A	0	\$
MOBILIZE CAMP Reclamation activities		allow		#N/A	0	5
Reclamation activities Long term reclamation activities (eg pump l	(nodice)	allow		#N/A	0	\$
MOBILIZE WORKERS	iooding)	allow		mie/A		•
Reclamation activities - transport Reclamation activities - transport	All flights and logistics Dash 7 flights	LS each	1	#N/A MWH	678733.00 9100.00	\$678,73
Reclamation activities - transport	Hercules flights	each	0	#N/A	20000	•
Rotation over reclamation period	Worker rotation costs	LS	1	#N/A	310464.00	\$310,46
Reclamation activities - travel time		mandays	0	ACCMH	175	\$
Long term reclamation activities (eg pump l	looding) - transport	each		#N/A	0	\$
Long term reclamation activities (eg pump l	llooding) - travel time	each		#N/A	0	\$
Monitoring Airfare		each		#N/A	0	
WORKER ACCOMMODATIONS	Camp services, communications, food,					
Reclamation activities	administration, mine management	LS	1	#N/A	1830491.00	\$1,830,49
Long term reclamation activities (eg pump l CONSTRUCTION MAINTENANCE	looding)	manmonths		#N/A	0	
Site roads and airstrip	Maintain during construction	LS	1	#N/A	129015.00	\$129,01
Site equipment and facilities	Maintain during construction	LS	1	#N/A	274353.00	\$274,35
MOBILIZE FUEL						
Fuel for reclamation activities	Supply and ship to site	LS	0	#N/A	\$924,776	
Fuel freight - long term reclamation activitie	S .	liter		#N/A	0	
Fuel freight accommodations WINTER ROAD		liter		#N/A	0	4
Mobilization - Construction and operation	366 km GK to site times	LS	0	#N/A	\$477,997	s
Demobilization - Construction and operatio	366 km GK to site times	LS	1	#N/A	\$477,997	\$477,99
Limited winter use		km		#N/A	0	3
Winter road tariff	Included in mob/demob.	kmtonne	0	WRUS	0.11	
DEMOBILIZE HEAVY EQUIPMENT						
	Rental of equipment while on site is under					
Excavators	"Mobilize". Mob/demob is under "Winter Road"	km		#N/A	0	
Dump trucks		km		#N/A	0	
Dozers Demolition shears		km km		#N/A #N/A	0	\$
Demolition shears Crane		km km		#N/A #N/A	0	3
Loader		km km		#N/A	0	
Compactor		each		#N/A	0	
Light duty vehicles		km		#N/A	0	
Other		km		#N/A	0	
DEMOBILIZE WORKERS						
crew travel time	Covered in rotation costs above.	LS	0	#N/A	\$0	3
crew transportation	Covered in flights and logistics above.	each	0	#N/A	0	5

