LMI Labor Summary (based on 2014 take-off quantities)
LMI Rate Structure

Designation	2014 Rate	2015 Rate	2016 Rate
Electrician-F/M	$54.43	$54.43	$51.71
Electrician-J/M	$49.17	$49.17	$46.71
Ironworker-F/M	$53.43	$53.43	$50.76
Ironworker-J/M	$47.95	$47.95	$45.55
Labourer-F/M	$43.38	$43.38	$41.21
Labourer-J/M	$39.77	$39.77	$37.78
Mechanic (ME2)	$40.41	$40.41	$38.39
Mechanic (ME2)	$40.41	$40.41	$38.39
Serviceman	$33.92	$33.92	$32.22
Millwright-F/M	$56.55	$56.55	$53.72
Millwright-J/M	$51.06	$51.06	$48.51
Operator-F/M	$51.79	$51.79	$49.20
Operator-R/T	$47.36	$47.36	$44.99
Operator-Truck	$44.01	$44.01	$41.81
Operator-Equip	$46.29	$46.29	$43.98
Operator-J/M	$50.64	$50.64	$48.11
Pipefitter-F/M	$56.37	$56.37	$53.55
Pipefitter-J/M	$50.86	$50.86	$48.32

Equipment Charge-out Rates

Cat 777	$187.00
Bkho 375L	$179.20
7500 ftlb	$44.05
Cat 992D	$245.00
Cat D10N	$185.26
110 Ton	$185.10
40t Toro	$22.48
LT 9000	$28.67
Volvo 5350B	$77.23
D85E	$34.65
D8K	$34.65
966E FEL	$16.57
RT522	$111.86

PAG Rock

Total	0	100,000

Productivity calculations:

Capacity Cat 992D Loader	10.0	m^3 per bucket (crushed rock)		
Fill factor	90%			
Load factor	85%			
Calculated Loac	7.7	m^3 per bucket (crushed rock)		
Cycle time	1.20	minutes/cycle =	50	loads per hour max
		@ 50 min/hr =	41.7	loads per hour assumed
Calculated productivity:	319	m^3 per hour		
Rock required to move:	100,000	m^3		
Total time required to load material:	314	hours		
		Hours per shift	11	
		Shifts per day	2	
		Total days =	14	
		@ 4.3 weeks/mth =	0.5	months
		@ 3 mths/season =	0.2	seasons

Capacity Volvo Truck	35	m^3 (crushed rock)		
Fill factor	85%			
Load factor	85%			
Calculated Loac	25.3	m^3 (crushed rock)		
Cycle time	18	minutes/cycle =	3.33	loads per hour max
		@ 50 min/hr =	2.78	loads per hour assumed
Calculated productivity:	70	m^3 per hour, per truck		
Number trucks required:	1.00	trucks, rounded up =	1	trucks
Total trucking time required:	1,424	hours		
		Hours per shift	11	
		Shifts per day	2	
		Total days =	65	
		@ 4.3 weeks/mth =	2.1	
		@ 3 mths/season =	0.7	

Therefore One season will Complete the movement required.

SHAFT DUMP AREAS					Labor		Equipment		Total
Desc	Quan.	Item	Hours	Hrs Ttl	$/hr	Cost	$/hr	Cost	Cost
Rock Placement		100,000	m^3ROM mat'l to move from mill area to shaft area.						
Rip/ Stockpile	1	D10N Dozer	100	100	$43.98	$4,398	$185.26	$18,526	$22,924
	1	D8K Dozer	100	100	$43.98	$4,398	$34.65	$3,465	$7,863
Load	1	992D Loader	314	314	$43.98	$13,796	$245.00	$76,863	$90,659
Haul and Dump	1	volvo	1424	1424	$41.81	$59,521	$77.23	$109,947	$169,468
spotter	2		633	1266	$32.22	$40,796			$40,796
safety	2		634	1268	$51.71	$65,566			$65,566
Sub-total						$188,474		$208,801	$397,275
PAG- Shaft Area				4471.4		$188,474		$208,801	$397,275

PAG Rock

Total	0	200,000

Dump to open stopes to average of 500m UG- Maximum haul distance 4.2km.

Productivity calculations:

Capacity Cat 992D Loader	10.0	m^3 per bucket (crushed rock)		
Fill factor	90%			
Load factor	85%			
Calculated Load	7.7	m^3 per bucket (crushed rock)		
Cycle time	1.20	minutes/cycle =	50	loads per hour max
		@ 50 min/hr =	41.7	loads per hour assumed
Calculated productivity:	319	m^3 per hour		
Rock required to move:	200,000	m^3		
Total time required to load material:	627	hours		
		Hours per shift	11	
		Shifts per day	2	
		Total days =	29	
		@ 4.3 weeks/mth =	0.9	months
		@ 3 mths/season =	0.3	seasons

Capacity 40t UG Truck	40	m^3 (crushed rock)		
Fill factor	95%			
Load factor	95%			
Calculated Load	36.1	m^3 (crushed rock)		
Cycle time	32	minutes/cycle =	1.88	loads per hour max
		@ 50 min/hr =	1.56	loads per hour assumed
Calculated productivity:	56	m^3 per hour, per truck		
Number trucks required:	2.00	trucks, rounded up =	2	trucks
Total trucking time required:	1,773	hours		
		Hours per shift	11	
		Shifts per day	2	
		Total days =	81	
		@ 4.3 weeks/mth =	2.7	
		@ 3 mths/season =	0.9	

Therefore One season will Complete the movement required.

PAG TO UG					Labor		Equipment		Total
Desc	Quan.	Item	Hours	Hrs Ttl	$/hr	Cost	$/hr	Cost	Cost
Rock Placement		200,000	m^3ROM mat'l to move from mill area to tails area.						
Rip/ Stockpile	1	D10N Dozer	100	100	$43.98	$4,398	$185.26	$18,526	$22,924
	1	D8K Dozer	100	100	$43.98	$4,398	$34.65	$3,465	$7,863
Load	1	992D Loader	627	627	$43.98	$27,592	$245.00	$153,725	$181,318
Haul and Dump	2	40t Toro	1773	3546	$41.81	$148,244	$22.48	$79,707	$227,952
UG spotters	8		800	6400	$43.98	$281,443			$281,443
safety	2		800	1600	$51.71	$82,734			$82,734
Sub-total						$548,809		$255,424	$804,233
PAG UG1				12373		$548,809		$255,424	$804,233

PAG Rock

Total	0	100,000

Productivity calculations:

Capacity Cat 992D Loader	10.0	m^3 per bucket (crushed rock)		
Fill factor	90%			
Load factor	85%			
Calculated Load	7.7	m^3 per bucket (crushed rock)		
Cycle time	1.20	minutes/cycle =	50	loads per hour max
		@ 50 min/hr =	41.7	loads per hour assumed
Calculated productivity:	319	m^3 per hour		
Rock required to move:	100,000	m^3		
Total time required to load material:	314	hours		
		Hours per shift	11	
		Shifts per day	2	
		Total days =	14	
		@ 4.3 weeks/mth =	0.5	months
		@ 3 mths/season =	0.2	seasons

Capacity Cat 777 Truck	51.5	m^3 crushed rock)		
Fill factor	85%			
Load factor	75%			
Calculated Load	32.8	m^3 (crushed rock)		
Cycle time	27	minutes/cycle =	2.22	loads per hour max
		@ 50 min/hr =	1.85	loads per hour assumed
Calculated productivity:	61	m^3 per hour, per truck		
Number trucks required:	1.00	trucks, rounded up =	1	trucks
Total trucking time required:	1,645	hours		
		Hours per shift	11	
		Shifts per day	2	
		Total days =	75	
		@ 4.3 weeks/mth =	2.5	
		@ 3 mths/season =	0.8	

Therefore One season will Complete the movement required.

PAG to Tails					Labor		Equipment		Total
Desc	Quan.	Item	Hours	Hrs Ttl	$/hr	Cost	$/hr	Cost	Cost
Rock Placement		100,000	m^3ROM mat'l to move from mill area to tails area.						
Rip/ Stockpile	1	D10N Dozer	200	200	$43.98	$8,795	$185.26	$37,052	$45,847
	1	D8K Dozer	200	200	$43.98	$8,795	$34.65	$6,930	$15,725
Load	1	992D Loader	314	314	$43.98	$13,796	$245.00	$76,863	$90,659
Haul	1	Cat 777 Trucks	1645	1645	$41.81	$68,767	$187.00	$307,573	$376,340
Place	1	Cat D85E Dozer	314	314	$43.98	$13,796	$34.65	$10,871	$24,667
Spotters	2		1645	3290	$32.22	$106,017			$106,017
safety	2		1646	3292	$51.71	$170,224			$170,224
Sub-total						$219,967		$439,288	$659,255
PAG-Tailings Containment Area				9254.2		$219,967		$439,288	$659,255

Tailing Containment Area

Cell	Depth m	Area m^2	Volume m^3
5	1.20	129,000	154,800
3	1.20	71,100	85,320
Total		200,100	240,120

Using PCL productivity calculations:

Capacity Cat 992D Loader	10.0	m^3 per bucket (heaped esker sand)			
Fill factor	90%				
Load factor	90%				
Calculated Load	8.1	m^3 per bucket (heaped esker sand)			
Cycle time	0.75	minutes/cycle =	80	loads per hour max	
		@ 50 min/hr =	66.7	loads per hour assumed	
Calculated productivity:	540	m^3 per hour			
Esker material required to move:	240,120	m^3			
Total time required to load material:	445	hours			
		Hours per shift	11		
		Shifts per day	2		
		Total days =	20		
		@ 4.3 weeks/mth =	0.7	months	
		@ 3 mths/season =	0.2	seasons	

Capacity Cat 777 Truck	51.5	m^3 (heaped esker sand)			
Fill factor	90%				
Load factor	85%				
Calculated Load	39.4	m^3 (heaped esker sand)			
Cycle time	28.6	minutes/cycle =	2.10	loads per hour max	
		@ 50 min/hr =	1.75	loads per hour assumed	
Calculated productivity:	69	m^3 per hour, per truck			
Number trucks required:	2.00	trucks, rounded up =	2	trucks	
Total trucking time required:	1,743	hours			
		Hours per shift	11		
		Shifts per day	2		
		Total days =	79		
		@ 4.3 weeks/mth =	2.6		
		@ 3 mths/season =	0.9		

Therefore One season will Complete the Cover required.

TAILINGS CONTAINMENT AREA					Labor		Equipment		Total
Desc	Quan.	Item	Hours	Hrs Ttl	$/hr	Cost	$/hr	Cost	Cost
Granular Cover		240,120	m^3 esker mat'l to move from Fingers Lake to tails area.						
Stockpiling									
Strip / Stockpile	1	D10N Dozer	200	200	$43.98	$8,795	$185.26	$37,052	$45,847
	1	D8K Dozer	200	200	$43.98	$8,795	$34.65	$6,930	$15,725
Load	1	992D Loader	445	445	$43.98	$19,554	$245.00	$108,943	$128,498
Haul	2	Cat 777 Trucks	1743	3486	$41.81	$145,757	$187.00	$651,925	$797,682
Place	1	Cat D85E Dozer	445	445	$43.98	$19,554	$34.65	$15,408	$34,962
spotters	2		1743	3486	$32.22	$112,340		$0	$112,340
Sub-total						$314,797		$820,258	$1,135,054
Fingers Lake Esker		Reclaim - contour and grade quarry							
Sub-total	1	D10N Dozer	2400	2400	$43.98	$105,541	$185.26	$444,624	$550,165
Tailings Containment Area				10662		$420,338		$1,264,882	$1,685,219