

Parkdale Quarry Expansion Project

Exhibit L - Reclamation Cost Estimate

Item	Summary of Costs
Granite Quarry Reclamation	\$ 685,914
Alluvial Area Reclamation	\$ 2,433,567
Engineering and Surveying	\$ 33,000
Wash Plant Removal	\$ 50,896
Contingency	\$ 300,000
Total Estimated Reclamation Cost	\$ 3,503,377

Granite Area Reclamation

Top Dressing - 6-inch deep						
Cost per Square Yard	Acres	Square Yards Per Acre	Total Square Yards	Base Cost	Multiplier for Grading on Steep Slopes	Total Cost
\$1.90	34	4,840	166,496	\$316,857.75	1.2	\$ 380,229.30

Haul Road Reclamation - 6800 feet long by 60 feet wide (9.4 acres)				
Description	Quantity	Units	Unit Cost	Total
Equipment Operator - Excavator	120	Hours	\$ 50	\$6,000
Equipment Operator - Dozer	120	Hours	\$ 50	\$6,000
Laborer	120	Hours	\$ 40	\$4,800
Laborer	120	Hours	\$ 40	\$4,800
Teamster - Water Truck	120	Hours	\$ 45	\$5,400
Teamster - Haul Truck	120	Hours	\$ 45	\$5,400
Supervisor	120	Hours	\$ 55	\$6,600
Excavator	3	Weeks	\$ 5,000	\$15,000
Dozer - D7	3	Weeks	\$ 7,800	\$23,400
Haul Truck	3	Weeks	\$ 5,000	\$15,000
Water Truck	3	Weeks	\$ 4,500	\$13,500
Supervisor's Truck	3	Weeks	\$ 1,500	\$4,500
Total Labor Cost				\$110,400

Revegetation - Granite Quarry				
Labor				
Description	Quantity	Units	Unit Cost	Total
Equipment Operator	40	Hours	\$ 50	\$2,000
Equipment Operator	40	Hours	\$ 50	\$2,000
Equipment Operator	160	Hours	\$ 50	\$8,000
Equipment Operator	160	Hours	\$ 50	\$8,000
Equipment Operator	160	Hours	\$ 50	\$8,000
Teamster	80	Hours	\$ 45	\$3,600
Supervisor	200	Hours	\$ 60	\$12,000
Laborer	160	Hours	\$ 40	\$6,400
Laborer	160	Hours	\$ 40	\$6,400
Laborer	160	Hours	\$ 40	\$6,400
Total Labor Cost				\$62,800
Equipment				
Description	Quantity	Units	Unit Cost	Total
Tractor/Seeder	1	Week	\$ 1,275	\$1,275
Tractor/Seeder - Reseed	1	Week	\$ 1,275	\$1,275
Tractor with Disc	1	Month	\$ 5,000	\$5,000
Loader - Cat 966	1	Month	\$ 10,500	\$10,500
Material Spreader	1	Month	\$ 5,000	\$5,000
Foreman's Truck/Service Truck	1.25	Month	\$ 1,100	\$1,375
Water Truck - 8,000 gallon off-road	1	Month	\$ 12,000	\$12,000
TOTAL EQUIPMENT COST				\$36,425
Materials/Contractors				
Description	Quantity	Units	Unit Cost	Total
Fertilizer - 250 pounds per acre	8,600	Pounds	\$ 0.13	\$1,140
Seed - 16 pounds per acre	551	Pounds	\$ 4.75	\$2,617
Reseed - 16 pounds per acre	551	Pounds	\$ 4.75	\$2,617
Diesel Fuel	3800	Gallon	\$ 2.13	\$8,094
Soil Testing	1	Lump Sum	\$ 1,500.00	\$1,500
Monitoring	30	Hours	\$ 150.00	\$4,500
TOTAL MATERIAL/SUBCONTRACTOR COSTS				\$20,468
TOTAL REVEGETATION COST				\$119,693

Talahassee Bridge Removal				
Labor				
Description	Quantity	Units	Unit Cost	Total
Equipment Operator	40	Hours	\$ 50	\$2,000
Equipment Operator	40	Hours	\$ 50	\$2,000
Teamster	20	Hours	\$ 45	\$900
Supervisor	40	Hours	\$ 55	\$2,200
Laborer	40	Hours	\$ 40	\$1,600
Laborer	40	Hours	\$ 40	\$1,600
Laborer	40	Hours	\$ 40	\$1,600
TOTAL LABOR COST				\$11,900
Equipment				
Description	Quantity	Units	Unit Cost	Total
Excavator with Breaker	1	Week	\$6,275	\$6,275
Excavator with Thumb	1	Week	\$5,000	\$5,000
Loader - Cat 966	1	Week	\$10,500	\$10,500
Truck	1	Week	\$5,000	\$5,000
Foreman's Truck/Service Truck	1	Week	\$1,500	\$1,500
Water Truck - 8,000 gallon	1	Week	\$4,500	\$4,500
TOTAL EQUIPMENT COST				\$32,775
Materials/Contractors				
Description	Quantity	Units	Unit Cost	Total
Disposal of Debris	400	Tons	\$10.00	\$4,000
Materials for Falsework (Creek Protection)	1	Lump Sum	\$25,000.00	\$25,000
Diesel Fuel	900	Gallon	\$2.13	\$1,917
TOTAL MATERIAL/SUBCONTRACTOR COSTS				\$30,917
TOTAL BRIDGE DEMOLITION COST				\$75,592

TOTAL COST FOR GRANITE QUARRY RECLAMATION

\$ 685,914.30

Top Dressing - 6-inch deep						
Cost per Square Yard	Acres	Square Yards Per Acre	Total Square Yards	Base Cost	Multiplier for Grading on Steep Slopes	Total Cost
\$1.90	34	4,840	166,496	\$316,857.75	1.2	\$ 380,229.30

166,496 Square yards of area dressed to 6" equals

27,749 Cubic Yards

6.0 Square Yards per Cubic Yard

Labor

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Operator - Loader		\$ 50.00		220		\$ 11,000.00
Operator - Dozer		\$ 50.00		220		\$ 11,000.00
Operator - Tractor with Disc		\$ 50.00		40		\$ 2,000.00
Teamster- Water Truck		\$ 45.00		220		\$ 9,900.00
Teamster- Haul Truck		\$ 45.00		220		\$ 9,900.00
Teamster- Haul Truck		\$ 45.00		220		\$ 9,900.00
Teamster- Haul Truck		\$ 45.00		220		\$ 9,900.00
Foreman		\$ 55.00		220		\$ 12,100.00
TOTAL LABOR COST						\$ 75,700.00

Equipment

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
D9 Dozer	Wagner	\$ 39,460.00	Month	1.375		\$ 54,257.50
980 Loader	Wagner	\$ 15,380.00	Month	1.375	\$ 952.00	\$ 22,099.50
Tractor with Spreader & Disc	Wagner	\$ 1,275.00	Week	1	\$ 500.00	\$ 1,775.00
Service Truck		\$ 3,000.00	Month	1.375		\$ 4,125.00
Pickup		\$ 1,500.00	Month	1.375		\$ 2,062.50
Water Truck - 8,000 gallon	Wagner	\$ 16,000.00	Month	1.375		\$ 22,000.00
740 Haul Truck	Wagner	\$ 18,450.00	Month	1.375		\$ 25,368.75
740 Haul Truck	Wagner	\$ 18,450.00	Month	1.375		\$ 25,368.75
740 Haul Truck	Wagner	\$ 18,450.00	Month	1.375	\$ 1,222.00	\$ 26,590.75
TOTAL EQUIPMENT COST						\$ 183,647.75

Materials

Description	Supplier	Unit Cost	Units	Quantity	Sales Tax (Enter as a decimal)	Shipping and Handling	Total
Diesel Fuel		\$ 2.13	Gallon	27,000			\$ 57,510.00
Soil	Onsite Stockpile	\$ -	Cubic Yards	27,749			\$ -
							\$ -
TOTAL MATERIAL COST							\$ 57,510.00

TOTAL COST FOR Top Dressing \$ 316,857.75

COST PER CUBIC YARD \$11.42

COST PER SQUARE YARD \$ 1.90

Parkdale Reclamation - Estimated Costs for Alluvial Pit Reclamation

Item					Summary of Costs
Rip and Recompact Floor	\$	2.19	Per Cubic Yard	174,240 Cubic Yards	\$ 381,536
Haul and place fill for Liner	\$	4.35	Per Cubic Yard	380,000 Cubic Yards	\$ 1,654,611
Toe drain construction	\$	10.49	Per Linear Foot	7,600 Linear Feet	\$ 79,740
Site Cleanup and Seeding	\$	4,813.33	Per Acre	66 Acres	\$ 317,680
Total Estimated Reclamation Cost					\$ 2,433,567

Cost to rip material from floor for clay liner (Approximately half of the required liner material can be derived onsite).

Operational Costs	Production rate	700	tons per hour		
Scraper - Cat 627	\$	234.00	per hour	Based on the weekly rental rate	Wagner Rental Rate Sheet
Operator	\$	50.00	per hour		
Scraper - Cat 627	\$	234.00	per hour	Based on the weekly rental rate	Wagner Rental Rate Sheet
Operator	\$	50.00	per hour		
Dozer (D-7) w/ compactor	\$	195.00	per hour	Based on the weekly rental rate	Wagner Rental Rate Sheet
Operator	\$	50.00	per hour		
Water Truck	\$	100.00	per hour	Based on the weekly rental rate	Wagner Rental Rate Sheet
Driver	\$	45.00	per hour		
TOTAL OPERATIONAL COSTS	\$	958.00	per 700 tons	=	\$ 1.37 per ton
				=	\$ 2.19 per yard at 1.6 tons per yard

Cost to place on site material for clay liner = \$ 2.19 per cubic yard

Cost to place clay liner fill material.

Production rate =	250	tons per hour					
Operational Costs							
Onsite Material Transport	\$	35.00	per load	4 Loads per hour	\$	140.00	70 tons per load
Trucking	\$	150.35	per load at \$97 per hour	1 Loads per hour	\$	150.35	Supplimental material imported from Martin Marietta Penrose Sand & Gravel Pit, which is an approximate 90 minute round trip. Approximately 10% of fill material.
Dozer (D-7) w/ compactor	\$	195.00	per hour		\$	195.00	Based on the weekly rental rate Wagner Rental Rate Sheet
Operator	\$	50.00	per hour		\$	50.00	
Water Truck	\$	100.00	per hour		\$	100.00	Based on the weekly rental rate Wagner Rental Rate Sheet
Driver	\$	45.00	per hour		\$	45.00	
TOTAL OPERATIONAL COSTS				=	\$	680.35	per 250 tons
				=		\$	2.72 per ton
						\$	4.35 per yard at 1.6 tons per yard

Cost to place and compactmaterial for clay liner = \$ 4.35 per cubic yard

Labor

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Operator - Loader		\$ 50.00		80		\$ 4,000.00
Operator - Excavator		\$ 50.00		80		
Laborer		\$ 45.00		80		\$ 3,600.00
Laborer		\$ 45.00		80		\$ 3,600.00
Foreman		\$ 55.00		80		\$ 4,400.00
TOTAL LABOR COST						\$ 15,600.00

Equipment

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
Cat 966 Loader	Wagner Cat	\$ 4,850.00	Week	2	\$ 600.00	\$ 10,300.00
Cat 235 Excavator	Wagner Cat	\$ 5,000.00	Week	2	\$ 600.00	\$ 10,600.00
Service Truck	TBD	\$ 850.00	Week	2		\$ 1,700.00
Pickup	TBD	\$ 400.00	Week	2		\$ 800.00
						\$ -
						\$ -
						\$ -
TOTAL EQUIPMENT COST						\$ 23,400.00

Materials

Description	Supplier	Unit Cost	Units	Quantity	Sales Tax (Enter as a decimal)	Shipping and Handling	Total
Diesel Fuel		\$ 2.75	Gallon	320			\$ 880.00
Drain Pipe		\$ 2.35	Linear Foot	7600			\$ 17,860.00
Filter Fabric		\$ 0.63	Square Foot	35200			\$ 22,000.00
							\$ -
TOTAL MATERIAL COST							\$ 40,740.00

Subcontractors

Service	Supplier	Unit Cost	Units	Quantity	Total
					\$ -
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ -

TOTAL COST FOR TOE DRAIN \$ 79,740.00

Cost Per Linear Foot 7600 Linear Feet \$ 10.49

Cost for non-mining area cleanup (includes other grading required to cleanup site.

Total area to be cleaned up and regraded = 66 acres

Grading Costs

	Production rate	0.25	Acres per Hour		
Compactor - Cat CS56	\$	60.00	per hour	Based on the weekly rental rate	Wagner Rental Rate Sheet
Operator	\$	50.00	per hour		
Motor Grader	\$	100.00	per hour	Based on the weekly rental rate	Wagner Rental Rate Sheet
Operator	\$	50.00	per hour		
Dozer (D-7)	\$	165.00	per hour	Based on the weekly rental rate	Wagner Rental Rate Sheet
Operator	\$	50.00	per hour		
Water Truck	\$	100.00	per hour	Based on the weekly rental rate	Wagner Rental Rate Sheet
Driver	\$	45.00	per hour		
	\$	620.00	per .25 acres	=	\$ 2,480.00 per acre

Total Grading Cost for Cleanup 66 acres at \$ 2,480 per acre = \$ 163,680

Revegetation - 60 acres

This is less than the 66 acres outside of the pit area because of roads, graveled parking ares, and other areas that will remain abd will not be revegetatec

Hydroseeding	\$	154,000.00
	\$	154,000.00

Total Costs for Non-mining Area Cleanup \$ 317,680.00

Cost per acre for Non-mining Area Cleanup \$ 4,813.33

Labor

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Operator - Loader		\$ 50.00		80		\$ 4,000.00
Laborer		\$ 45.00		80		\$ 3,600.00
Laborer		\$ 45.00		80		\$ 3,600.00
Foreman		\$ 55.00		80		\$ 4,400.00
TOTAL LABOR COST						\$ 15,600.00

Equipment

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
Cat 966 Loader	Wagner Cat	\$ 4,850.00	Week	2	\$ 600.00	\$ 10,300.00
Service Truck	TBD	\$ 850.00	Week	2		\$ 1,700.00
Pickup	TBD	\$ 400.00	Week	2		\$ 800.00
						\$ -
						\$ -
						\$ -
TOTAL EQUIPMENT COST						\$ 12,800.00

Materials

Description	Supplier	Unit Cost	Units	Quantity	Sales Tax (Enter as a decimal)	Shipping and Handling	Total
Diesel Fuel		\$ 2.75	Gallon	320			\$ 880.00
							\$ -
							\$ -
							\$ -
TOTAL MATERIAL COST							\$ 880.00

Subcontractors

Service	Supplier	Unit Cost	Units	Quantity	Total
Crane Service - 70-ton	SOCO	\$ 235.00	Hour	40	\$ 9,400.00
Crane - Mob/demob	SOCO	\$ 235.00	Hour	12	\$ 2,820.00
Trucking - Lowboy	TBD	\$ 116.00	Hour	81	\$ 9,396.00
					\$ -
TOTAL SUBCONTRACTOR COST					\$ 21,616.00

TOTAL COST FOR PLANT REMOVAL \$ 50,896.00