



Bruce Norquist
Facilities Manager
Rio Grande Resources Corporation
P.O. Box 1150
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December 29, 2020

Mr. David Ohori
Supervisor/Senior Reclamation Specialist
Mining and Minerals Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Submittal of an Updated Closeout Plan Cost Estimate, as Requested in the Comment Letter Dated October 8, 2020; Application for Modification 20-1 to Mt. Taylor Mine, Permit No. CI002RE, Rio Grande Resources Corporation

Dear Mr. Ohori,

Attached to this letter is Rio Grande Resources Corporation's (RGR) updated closure plan cost estimate, which was requested by MMD in a comment letter dated October 8, 2020. The comment letter dated October 8, 2020 pertained to RGR's request for permit modification, submitted May 15, 2020 (Modification 20-1). RGR responded to MMD's comment letter on December 7, 2020. In that response letter, RGR stated it would submit an updated closeout plan cost estimate before the end of December 2020.

The attached updated closeout plan cost estimate was prepared by Alan Kuhn, P.E. for RGR and incorporates all of the updates requested by MMD. Completed work was removed from the cost estimate and anticipated new work was added. Pricing was adjusted in the updated cost estimate from the 2013 values. In addition, currently projected material volumes were used in the updated cost estimate. Assumptions of anticipated work and currently projected material volumes were based on knowledge of site conditions as of late December 2020. RGR expects to conduct additional characterization of the site in early 2021 to better define these assumptions.

Once all of the subtractions, additions and changes were made to the updated cost estimate, the difference in cost was an increase of around \$429,660 dollars above the 2013 closeout plan cost estimate. This is a 6.1 percent increase above the 2013 amount. RGR believes this to be an insignificant amount of change.

If you have any questions, please contact me at (505) 287-7971 or by email at bruce.norquist@ga.com.

Sincerely,


Bruce Norquist
Facilities Manager, Mt. Taylor Mine
Rio Grande Resources Corporation

cc: Ashlyne Winton, NMED (via email)

Item #	Description	2013 Rev. 1 Estimate				2020 Rev. 6 Estimate				COST DIFFERENCE		
		Material(s)	Units	\$/Unit	Quantity	Cost, \$	Material(s)	Units	\$/Unit		Quantity	Cost, \$
1	Direct Reclamation Costs											
1.1	Shaft Closures											
1.1.1	Production/ Haulage (24 ft) Shaft Shaft Fittings and Equipment											
1.1.2	24 ft Shaft Headframe											
	24 ft Production Shaft Headframe - drop using explosives, dozers - cranes, torches, shears		day	\$ 1,245	10	\$ 12,450	crane	day	\$ 1,245	10	\$ 12,450	\$ -
			day	\$ 1,156	10	\$ 11,560	demo crew	day	\$ 1,362	10	\$ 13,620	\$ 2,060
	Cut and remove, 20 ft max lengths	structural steel	leg	\$ 1,785	8	\$ 14,280	structural steel	leg	\$ 1,910	8	\$ 15,280	\$ 1,000
	Cut vent pipe, decking, stairs, railing, cable, sheet metal, etc. to size	cut structural steel	hour	\$ 220.70	53	\$ 11,697	cut structural steel	hour	\$ 263.75	53	\$ 13,979	\$ 2,282
	Load, haul, dump	fabricated metal materials	SF	\$ 0.29	3750	\$ 1,088	fabricated metal materials	SF	\$ 0.31	3750	\$ 1,163	\$ 75
	Remove concrete from slab outside of collar, ore loading area	steel, scrap	hour	\$ 59	40	\$ 2,360	steel, scrap	hour	\$ 132	40	\$ 5,280	\$ 2,920
	Remove headframe foundations	concrete	CY	\$ 49.14	226.90	\$ 11,150	concrete	CY	\$ 49.14	226.90	\$ 11,150	\$ -
				not included			Concrete	CF	\$ 37.70	540	\$ 20,358	\$ 20,358
1.1.3	24 ft Shaft Plug and Backfill											
	Backfill Slurry batch plant		mo	\$ 4,600.00	3	\$ 13,800		mo	\$ 4,875.00	3	\$ 14,625	\$ 825
	Set steel support	crane	day	\$ 1,245.00	5	\$ 6,225	crane	day	\$ 1,245.00	5	\$ 6,225	\$ -
		crew	day	\$ 1,434.00	5	\$ 7,170	crew	day	\$ 1,658.00	5	\$ 8,290	\$ 1,120
	Cast Plug	concrete	CY	\$ 94.50	215	\$ 20,318	concrete	CY	\$ 150.00	215	\$ 32,250	\$ 11,933
		placement	CY	\$ 13.27	215	\$ 2,853	placement	CY	\$ 6.00	215	\$ 1,290	\$ (1,563)
	Vent structure	crane	day	\$ 1,245	5	\$ 6,225	crane	day	\$ 1,171	5	\$ 5,855	\$ (370)
		steel			not included		steel	hour	\$ 59.72	10	\$ 597	\$ 597
		concrete					concrete	CF	1.00	3030	\$ 3,018	\$ 3,018
	Backfill (Shaft above plug, tunnel and vent raise)	mix	CY	\$ 81.50	2847	\$ 232,031	mix - flowable fill	CY	\$ 80.00	2847	\$ 227,760	\$ (4,271)
		pumped placement	CY	\$ 5.29	2847	\$ 15,061	pumped placement	CY	\$ 6.00	2847	\$ 17,082	\$ 2,021
1.1.4	Manway/ Ventilation (14 ft) Shaft Fittings and Equipment											
		crane	day	\$ 1,245	5	\$ 6,225	crane	day	\$ 1,245	5	\$ 6,225	\$ -
		crew	day	\$ 1,156	5	\$ 5,780	crew	day	\$ 1,362	5	\$ 6,810	\$ 1,030
1.1.5	14 ft Shaft Headframe											
	14 ft Vent/ Manway Shaft Headframe - drop using cranes, torches, shears	structural steel	leg	\$ 1,590	6	\$ 9,540	structural steel	leg	\$ 1,910	6	\$ 11,460	\$ 1,920
	Cut and remove to shaft, 10 ft max lengths	structural steel	hour	\$ 220.70	29	\$ 6,400	structural steel	hour	\$ 263.75	29	\$ 7,649	\$ 1,249

	fabricated metal materials	SF	\$	0.29	1215	\$	352	fabricated metal materials	SF	\$	0.31	1215	\$	377	\$	24		
Cut vent pipe, decking, stairs, railing, cable, sheet metal, etc. to size																		
Load, haul, dump	steel, scrap	hour	\$	59	24	\$	1,416	steel, scrap	hour	\$	132	24	\$	3,168	\$	1,752		
Remove concrete slab outside of collar	concrete	CY	\$	264.06	29.64	\$	7,827	concrete	CY	\$	49.14	29.64	\$	1,456	\$	(6,370)		
Remove headframe foundations								Concrete	CF	\$	37.70	375	\$	14,138	\$	14,138		
not included																		
cost in 1.1.3 above																		
1.1.6 14 ft. Shaft Plug and Backfill																		
Backfill Slurry batch plant	crane	day	\$	1,245.00	4	\$	4,980	crane	day	\$	1,245	4	\$	4,980	\$			
Set steel support	crew	day	\$	1,434.00	4	\$	5,736	crew	day	\$	1,658	4	\$	6,632	\$	896		
Cast Plug	concrete	CY	\$	94.50	153	\$	14,459	concrete	CY	\$	150	153	\$	22,950	\$	8,492		
	placement	CY	\$	13.27	153	\$	2,030	placement	CY	\$	6.00	153	\$	918	\$	(1,112)		
	crane	day	\$	1,245.00	3	\$	3,735	crane	day	\$	1,171	3	\$	3,513	\$	(222)		
Backfill (Shaft above plug, vent raise and tunnel)	mix	CY	\$	81.50	764	\$	62,266	mix	CY	\$	150.00	764	\$	114,600	\$	52,334		
	pumped placement	CY	\$	5.29	764	\$	4,042	pumped placement	CY	\$	6.00	764	\$	4,584	\$	542		
1.1.7 Access/ Utility Tunnels Backfill																		
	mix	CY	\$	81.50	3480	\$	283,620	retained for electrical and water in PMLU									\$	(283,620)
	pumped placement	CY	\$	5.29	3480	\$	18,409	retained for electrical and water in PMLU									\$	(18,409)
1.2 Well and Conduit Plugging																		
1.2.1 Mine Conduit																		
Conduits (2)	4.1 cement bentonite grout mix	LF	\$	6.60	6400	\$	42,226	4.1 cement bentonite grout mix	LF	\$	8.19	6400	\$	52,441	\$	10,216		
1.2.2 Well Abandonment																		
Three wells in each of three aquifers will be retained for long-term monitoring																		
Deep wells (21)	4.1 cement bentonite grout mix	LF	\$	6.60	67205	\$	443,403	4.1 cement bentonite grout mix	LF	\$	14.45	51958	\$	750,793	\$	307,390		
Abatement monitoring wells (5)	cement bentonite grout	ft	\$	4.20	180	\$	756	cement bentonite grout	ft	\$	14.45	558.5	\$	8,070	\$	7,314		
1.3 Surface Facilities Demolition																		
1.3.1 Compressor Building																		
	Steel Frame (2)	CF	\$	0.145	25921	\$	3,759	Steel Frame (2)	CF	\$	0.217	25921	\$	5,625	\$	1,866		
	equipment, various	CF	\$	1.56	1620	\$	2,527	equipment, various	CF	\$	1.75	1620	\$	2,835	\$	308		
	concrete slab, removed	SF	\$	4.89	1620	\$	7,922	concrete slab, break up, leave in place	SF	\$	0.81	1620	\$	1,312	\$	(6,610)		
	Steel Frame (2)	CF	\$	0.145	150000	\$	21,750	Steel Frame (2)	CF	\$	0.217	150000	\$	32,550	\$	10,800		
1.3.2 York Chiller Refrigeration Equipment and Building																		
	equipment, various	CF	\$	1.56	5000	\$	7,800	equipment, various	CF	\$	1.75	5000	\$	8,750	\$	950		
	concrete slab, removed	SF	\$	4.89	5000	\$	24,450	concrete slab, break up, leave in place	SF	\$	0.81	5000	\$	4,050	\$	(20,400)		
	Steel Frame (2)	CF	\$	0.145	15360	\$	2,227	Steel Frame (2)	CF	\$	0.217	15360	\$	3,333	\$	1,106		
1.3.3 Pump Building (Chill Water Pump House)																		
	equipment, various	CF	\$	1.56	960	\$	1,498	equipment, various	CF	\$	1.75	960	\$	1,680	\$	182		

1.3.4 Shaft Heating Building	concrete slab, removed	SF	\$	4.89	960	\$	4,694	concrete slab, break up, leave in place	SF	\$	0.81	960	\$	778	\$	(3,917)				
	Steel Frame (2)	CF	\$	0.145	24000	\$	3,480	Steel Frame (2)	CF	\$	0.217	24000	\$	5,208	\$	1,728				
	equipment, various	CF	\$	1.56	1500	\$	2,340	equipment, various	CF	\$	1.75	1500	\$	2,625	\$	285				
	concrete slab	SF	\$	4.89	1500	\$	7,335	concrete slab, break up, leave in place	SF	\$	0.81	1500	\$	1,215	\$	(6,120)				
1.3.5 Hoist House	Steel Frame (2)	CF	\$	0.145	24000	\$	3,480	to be retained for PMLU									\$	-	\$	(3,480)
	equipment, various	CF	\$	1.56	1500	\$	2,340										\$	-	\$	(2,340)
	concrete hoist pedestals	CY	\$	207.50	148	\$	30,741										\$	-	\$	(30,741)
	concrete slab, removed	SF	\$	4.89	1500	\$	7,335										\$	-	\$	(7,335)
1.3.6 Service Building (Office and Warehouse)	Steel Frame (2)	CF	\$	0.145	642528	\$	93,167	to be retained for PMLU									\$	-	\$	(93,167)
	equipment, various	CF	\$	1.56	53544	\$	83,529										\$	-	\$	(83,529)
	concrete slab, removed	SF	\$	4.89	53544	\$	261,830	to be retained for PMLU									\$	-	\$	(261,830)
	Steel Frame (2)	CF	\$	0.145	29760	\$	4,315										\$	-	\$	(4,315)
1.3.7 Electrical Building	equipment, various	CF	\$	1.56	1860	\$	2,902	to be retained for PMLU									\$	-	\$	(2,902)
	concrete slab, removed	SF	\$	4.89	1860	\$	9,095										\$	-	\$	(9,095)
	Steel Frame (2)	CF	\$	0.145	49600	\$	7,192	previously removed									\$	-	\$	(7,192)
	equipment, various	SF	\$	1.56	3100	\$	4,836										\$	-	\$	(4,836)
1.3.8 Water Treatment and Boiler Building	concrete slab	SF	\$	4.89	3100	\$	15,159	previously removed									\$	-	\$	(15,159)
	Steel tanks at surface	EA	\$	1,000.00	7	\$	7,000	previously removed									\$	-	\$	(7,000)
1.3.9 Fuel Storage Tanks	Steel Frame (2)	CF	\$	0.145	13440	\$	1,949	previously removed									\$	-	\$	(1,949)
	equipment, various	CF	\$	1.56	840	\$	1,310										\$	-	\$	(1,310)
1.3.11 Glycol Heat Exchanger	concrete slab	SF	\$	4.89	840	\$	4,108	previously removed									\$	-	\$	(4,108)
	Steel Frame (2)	CF	\$	0.145	24000	\$	3,480	previously removed									\$	-	\$	(3,480)
	equipment, various	CF	\$	1.56	1500	\$	2,340	equipment, various	CF	\$	1.75	1500	\$	2,625	\$	285				
	concrete slab, removed	SF	\$	4.89	1500	\$	7,335	concrete slab, break up, leave in place	SF	\$	0.81	1500	\$	1,215	\$	(6,120)				
1.3.12 Chlorine Building	concrete block	CF	\$	0.145	6120	\$	887	concrete block	CF	\$	0.210	6120	\$	1,285	\$	398				
	equipment, various	CF	\$	1.56	360	\$	562	equipment, various	CF	\$	1.75	360	\$	630	\$	68				
	concrete slab	SF	\$	4.89	360	\$	1,760	concrete slab, break up, leave in place	SF	\$	0.81	360	\$	292	\$	(1,469)				
	Steel Frame (2)	CF	\$	0.145	8280	\$	1,201	Steel Frame (2)	CF	\$	0.217	8280	\$	1,797	\$	596				
1.3.13 Flocculant Treatment Building	equipment, various	CF	\$	1.56	690	\$	1,076	equipment, various	CF	\$	1.75	690	\$	1,208	\$	131				
	concrete slab, removed	SF	\$	4.89	690	\$	3,374	concrete slab, break up, leave in place	SF	\$	0.81	690	\$	559	\$	(2,815)				
	Steel Frame (2)	CF	\$	0.145	16000	\$	2,320	Steel Frame (2)	CF	\$	0.217	16000	\$	3,472	\$	1,152				
	equipment, various	CF	\$	1.56	1000	\$	1,560	equipment, various	CF	\$	1.75	1000	\$	1,750	\$	190				
1.3.14 Barium Chloride Treatment Facility	concrete slab, removed	SF	\$	4.89	1000	\$	4,890	concrete slab, break up, leave in place	SF	\$	0.81	1000	\$	810	\$	(4,080)				
	mixing tanks	LF			not included			mixing tanks	SF	\$	33.05	1750	\$	18,368	\$	18,368				

	backfill voids	CY				backfill voids	CY	2.17	556	\$	1,206	\$	1,206
1.3.15a Ion Exchange Building	Steel Frame and siding	CF	\$	0.145	392000	\$	56,840			\$	85,064	\$	28,224
	IX equipment				not included					\$	274,400	\$	274,400
	concrete slab	SF	\$	4.89	9800	\$	47,922			\$	7,938	\$	(39,984)
1.3.15b Mo/Se Treatment Building	Steel Frame (2)	CF	\$	0.145	655760	\$	95,085			\$		\$	(95,085)
	equipment, various	CF	\$	1.56	16394	\$	25,575			\$		\$	(25,575)
	concrete slab, removed	SF	\$	4.89	16394	\$	80,167			\$		\$	(80,167)
1.3.16 Mine Water Treatment Pond Hydraulic Structures	concrete	CY	\$	69.45	80	\$	5,556			\$	6,304	\$	748
1.3.17 Mine Car Rails	90 lb steel rail	linealft	\$	9.36	8787	\$	82,246			\$	70,078	\$	(12,168)
	low strength concrete	SF	\$	0.91	8569	\$	7,798			\$	2,485	\$	(5,313)
1.3.18 Shaft Exhaust Fans and Vents	light structural steel, sheet metal	CF	\$	0.145	18750	\$	2,719			\$	5,813	\$	3,094
1.3.19 Cooling Towers	Steel frame and plate	CF	\$	0.145	46875	\$	6,797			\$	10,172	\$	3,375
	equipment, various	CF	\$	1.56	5625	\$	8,775			\$	9,844	\$	1,069
	concrete slab, removed	SF	\$	4.89	1875	\$	9,169			\$	1,519	\$	(7,650)
1.3.20 Mine Water Discharge Pipes	12in. Sch 40 PVC	LF	\$	3.48	3000	\$	9,540			\$	1,930	\$	(7,610)
1.3.21 Treated Water Discharge Pipeline	steel, 24 inch diameter, re-cycled	LF	\$	23.96	23000	\$	551,080			\$	614,889	\$	63,809
	Demolish 20 thrust blocks, concrete	CY								\$	14,838	\$	14,838
	Load and haul broken concrete	CY								\$	2,125	\$	2,125
	cut pipe	LF								\$	52,568	\$	52,568
	Load pipe	Ea								\$	2,265	\$	2,265
	Haul pipe	mi								\$	6,787	\$	6,787
1.3.22 Truck Wash	plumbing, frame, siding, roof (2)	SF	\$	1.55	10295	\$	15,957			\$		\$	(15,957)
	concrete slab	SF	\$	4.89	14875	\$	72,739			\$		\$	(72,739)
1.3.23 Manholes and culverts	steel, concrete	ea	\$	186	2	\$	371			\$		\$	(371)
	Remove manholes and catch basins	LF	\$	23.00	1220	\$	28,060			\$		\$	(28,060)
	Backfill trench	CY	\$	2.04	1084	\$	2,212			\$		\$	(2,212)
1.3.24 Non-contaminated debris hauling and dumping/ stacking for salvage or disposal in pond basins	various	CY	\$	2.78	3897	\$	10,834			\$	4,404	\$	(6,430)
1.3.25 Fire Equipment Building	Steel frame, siding	CF	\$	0.217	10368	\$	2,250			\$	2,250	\$	2,250

was to be retained for PMLU

previously constructed; to be retained for PMLU

not constructed

not constructed

1.3.26 Carpenter Shop	concrete slab, break up, leave in place	SF	\$	0.81	648	\$	525	\$	525																						
										previously removed																					
1.3.27 Core Storage Building	Steel frame, siding	SF	\$	0.81	1,080	\$	875	\$	875																						
										concrete slab, break up, leave in place	CF	\$	0.217	60800	\$	13,194	\$	13,194													
																			concrete slab, break up, leave in place	SF	\$	0.81	3800	\$	3,078	\$	3,078				
1.3.28 Fan Shop	Steel frame, siding	CF	\$	0.217	14400	\$	3,125	\$	3,125																						
										concrete slab, break up, leave in place	SF	\$	0.81	1200	\$	972	\$	972													
1.3.29 Fuel Pump House	Steel frame, siding	CF	\$	0.217	1200	\$	260	\$	260																						
										concrete slab, break up, leave in place	SF	\$	0.81	150	\$	122	\$	122													
1.3.30 Sanitary Treatment Plant	not included	previously removed																													
		1.4 Earthwork	1.4.1 Ore Pad	after ore removal																											
contaminated soil only	LCY			\$	4.05	15906	\$	64,419	\$	64,419																					
contaminated soil only	LCY			\$	not included	not included	\$	not included	\$	not included																					
upgraded ore pad	LF			\$	36.92	1220	\$	45,042	\$	45,042																					
soil above 23 mR/hr, 5.8 pCi/g Ra	Based on 2020 ERG surveys																														
1.4.2 Excavation and Disposal of Contaminated Soil	Mine Water Treatment Pond Area (less pond basins)	total pond area less pond basins		BCY	\$	4.31	24943	\$	107,504	\$	121,394																				
		Discharge pipeline corridor	County Road ROW	BCY	\$	not included	not included	\$	not included	\$	not included																				
												Borrow Soil Area	North of Marquez Arroyo	BCY	\$	3.31	3791	\$	12,548	\$	7,444										
																						24 ft Shaft area	South Storm Water Pond	BCY	\$	4.31	7395	\$	31,872	\$	(5,104)
1.4.3 HDPE-Liner Ponds -Water Treatment (MWTP) Ponds and Ore Runoff Retention Pond Backfill	Pond sediment excavate, load, haul dump on waste pile	Contaminated pond sediments	BCY	\$	7.33	7716	\$	56,558	\$	2,602	\$	(55,956)																			
													Remove HDPE liner from anchor trenches and tops of pond slopes	Fold HDPE membrane into pond to 4 ft below final grade	SF	\$	0.081	121778	\$	9,864	\$	1,401	\$	(8,463)							

Remove hydraulic control structures above final grade Pond backfill by pond berm excavation and placement as backfill Mine Water Treatment Pond Area cut/fill	concrete	CY	not included	concrete	CY	\$	118.70	180	\$	21,366	\$	21,366	
	large scale earthwork	BCY	\$ 2.54	170,060	large scale earthwork	BCY	\$	2.87	130000	\$	373,100	\$	(58,852)
	total pond area less pond basins	BCY	\$ 3.31	58,195									\$
1.4.4 Waste Pile Buildout Stabilization													
Disposal Cell for contaminated sediments, soils, debris Place and compact disposal cell berms Excavate, load, and haul remaining liner soil Place and compact remaining disposal cell liner Excavate below-grade pits (Borrow 1 and Borrow 2) Flowable fill after treated water pipeline and debris placement Clay (radon barrier) soil excavation and haul, expansion area Clay cover (radon barrier) placement and compaction, expansion area Loam cover soil excavate, load, haul Cover placement - loam soil Cover grading South slope cut and fill Riprap on drainage bench and south slope Erosion control mat	Expansion of waste pile/ disposal cell to 19.3 acres												
	contaminated soil	BCY	\$ 1.46	17,400	\$ 25,404							\$	11,374
	clean clayey soil	BCY	\$ 4.31	2,489	\$ 10,727	clean clayey soil	BCY	\$ 4.09	8,991	\$ 36,778		\$	14,178
	clean clayey soil	LCY	\$ 2.43	2,862	\$ 6,955	clean clayey soil, 7.8 acres beyond original 11.5	LCY	\$ 2.77	8,991	\$ 24,905		\$	17,950
				Not included previously		clean soil	BCY	\$ 1.27	23,722	\$ 30,127		\$	30,127
				Not included previously		cementitious slurry with >50% soil, > 50 PSI to fill in and around pipe	CY	\$ 80.00	9,940	\$ 795,162		\$	795,162
				Not included previously		Borrow from areas A or B	CY	\$ 3.51	25168	\$ 88,340		\$	88,340
				completed 12/2020 on 11.5 acres		clean clayey soil	CY	\$ 1.11	25168	\$ 27,936		\$	27,936
						clean loam soil	BCY	\$ 4.31	34,905	\$ 150,442		\$	119,448
						stockpiled shaft muck, clean loam soil	LCY	\$ 1.46	40,141	\$ 58,606		\$	22,777
					grade to design slope	acre	\$ 936.54	8.30	\$ 7,770		\$	(7,770)	
					shaft muck			Not included previously					
					broken concrete, rock			Not included previously					
					tobacco netting	SY	\$ 0.50	26614	\$ 13,307		\$	32,283	
1.4.5 Riprap and Water Bars													
Concrete debris - crushing, loading and hauling Screening (all crushed rock for riprap) Rock and concrete hauling and placing Placing channel riprap Placing on waste pile slope	concrete, rock	CY	\$ 1.67	2496	\$ 4,178	concrete, rock	CY	\$ 9.11	2000	\$ 18,220		\$	14,042
	concrete, rock	day	\$ 532.20	11.43	\$ 6,082	concrete, rock	day	\$ 610.35	20	\$ 12,207		\$	6,125
	broken concrete, rock	CY	\$ 1.67	2496	\$ 4,178	broken concrete, rock	CY		see below		\$	(4,178)	
	concrete, rock	SY	\$ 28.50	889	\$ 25,333	concrete, rock	SY	\$ 28.57	584	\$ 16,685		\$	(8,648)
	concrete, rock	CY	\$ 25.87	1111	\$ 28,744	concrete, rock mulch	SY	\$ 9.68	1000	\$ 9,680		\$	(19,064)
1.4.6 Finish grading													
Mine Water Treatment Pond area County road ROW One pad and pond and borrow soil area A		acres	\$ 75.25	28.0	\$ 2,107		acres	\$ 774.40	42.0	\$ 32,525		\$	30,418
		acres	\$ 75.25	4.7	\$ 354		acres	\$ 774.40	4.9	\$ 3,795		\$	3,441
		acres	\$ 75.25	19.0	\$ 1,430		acres	\$ 774.40	19.3	\$ 14,946		\$	13,516

Waste pile area	acres	\$ 75.27	14.7	\$	1,109	waste pile and adjacent area	acres	\$ 774.40	19.3	\$	14,946	\$	13,837
Pipeline corridor	acres	\$ 75.25	15.6	\$	1,177		acres	\$ 774.40	15.6	\$	12,109	\$	10,932
Bench wall slope reduction	BCY	\$ 2.78	1852	\$	5,148	rock excavation	BCY	\$ 2.31	1852	\$	4,272	\$	(876)
North of Marquez Arroyo	acres	\$ 75.25	17.6	\$	1,326		acres	\$ 774.40	20.0	\$	15,488	\$	14,162
Service and Support Area	acres	\$ 73.79	39.3	\$	2,902		acres	\$ 774.40	40.0	\$	30,976	\$	28,074
Borrow area B	Not separated previously						acres	\$ 774.40	12	\$	9,293	\$	9,293
1.5 Revegetation													
1.5.1 Seeding	acres	\$ 871.20	100	\$	107,158	seed and drilling	acres	\$ 56.03	188	\$	10,548	\$	(96,610)
1.5.2 Mulching and Fertilizing	acres	\$ 1,933.63	100	\$	192,748		acres	\$ 2,317.39	188	\$	436,217	\$	243,469
1.5.3 Fencing	LF	\$ 1.49	10000	\$	14,892	additional fence	LF	\$ 1.49	4450	\$	6,627	\$	6,627
1.5.2 Vegetation Monitoring	Not separated previously					yearly for 12 years	days	\$ 1,000.00	12	\$	12,000	\$	6,627
1.6 Environmental Controls (temporary)													
1.6.1 Dust control	hours	\$ 89.15	1600	\$	142,640	water truck	hours	71.97	1,600	\$	115,152	\$	(27,488)
1.6.2 SWPPP implementation	LF	\$ 0.60	3000	\$	1,800	silt fence	LS	1	5,000	\$	5,000	\$	3,200
1.6.3 Environmental Monitoring	Not included previously					15 years, annual average	years	\$ 3,667	15	\$	55,000	\$	55,000
Total Direct										\$	5,592,588	\$	580,015
										\$	5,012,572		

2 Indirect Reclamation Costs		% of Direct Cost			
2.1	Mobilization and Demobilization	\$ 100,251	2%	\$ 223,703.51	\$ 123,452
2.2	Contingencies	\$ 501,257	10%	\$ 838,888.18	\$ 337,631
2.3	Redesign Costs	\$ 300,754	6%	\$ 167,777.64	\$ (132,977)
2.4	Profit and Overhead	\$ 902,263	18%	\$ 838,888.18	\$ (63,375)
2.5	Contract Management Fee	\$ 350,880	7%	\$ 167,777.64	\$ (183,102)
2.6	MMD Procurement Cost (2%-10%)	\$ 300,754	6%	\$ 167,777.64	\$ (132,977)
Total Indirect		\$ 2,456,160	49%	\$ 2,404,813	\$ (51,348)

NOTES:

- (1) RSM = RS Means Heavy Construction Cost Data 2019
- (2) Cost includes loading and hauling 1 mi. RT
- (3) Demolition cost per cubic foot = 2.5 cy excavator \$82.64/hr (RSM 01 54 33 20 0200) + Shear \$15.95/hr (RSM 01 54 33 20 0347) + two operators \$57.45/hr @ (RSM Crew A-3H) + labor crew \$84.1/hr (RSM Crew B-1) + Skid steer with grapple \$51.7/hr (RSM 01 54 33 4890). = \$349.29/hr, 200 cf/hr=\$1.75/cf. Volume base on 1 cf/sf of floor area.

Total Direct + Indirect

Location Cost Index - Cost adjustment to RS Means 2019 costs based on location versus national averages,

\$ 7,468,733	0.8765
\$ 6,546,344	
\$ 515,525	7.8750%
\$ 7,061,869	

Total Direct + Indirect, Present Cost P, Location-adjusted

New Mexico Gross Receipts Tax (NMGRT)

Total Direct + Indirect, Present Cost P, Location-adjusted, with NMGRT

Escalation (Inflation)

Rate, i, per CPI-U, updated 4/2/2013	n, years from 2020	F, Future Cost
Future cost, $F = P * (1+i)^n$		
in 2020	0	\$ 7,061,869
in 2021	1	\$ 7,238,416
in 2022	2	\$ 7,419,376
in 2023	3	\$ 7,604,861

for all services except energy services, average of past 10 years, from <https://www.bls.gov/charts/consumer-price-index/consumer-price-index-by-category-line-chart.htm>

n, years from 2020	F, Future Cost
0	\$ 7,491,530
1	\$ 7,621,134
2	\$ 7,752,979
3	\$ 7,887,106

The inflation rate is based on the year-to-year Consumer Price Index U. S. City Average for 2013 (ftp://ftp.bls.gov/pub/special_requests/cpi/cpia1.txt).

The average rate for the preceding five years (2008-2012) was 2.06, so 2% represents a reasonable estimate based on recent history as the basis for projection over the current standby permit period.

Based on average Consumer Price Index 2010-2019 (ftp://ftp.bls.gov/pub/special_requests/cpi/cpia1.txt).

\$ 7,997,401	\$ 528,668
\$ 7,013,720	\$ 467,376
\$ 477,810	\$ -
\$ 7,491,530	\$ 429,661

updated 11/30/20

1.73%

n, years from 2020	F, Future Cost
0	\$ 7,491,530
1	\$ 7,621,134
2	\$ 7,752,979
3	\$ 7,887,106