

COTTER MILL SITE SUMMARY - RML

NRC Code	Task Description	Totals	Estimated Cost	Reference/ Table	Index	Item No. in table
N/A	GRAND TOTAL RML SURETY	RML TOTAL	\$20,401,841	N/A		N/A
N/A	GRAND TOTAL RAP SURETY	RAP TOTAL	\$2,891,319	N/A		N/A
N/A	GRAND TOTAL SURETY	TOTAL	\$23,293,160	N/A		N/A

COTTER MILL SITE SUMMARY - RML

NRC Code	Task Description	Unit Cost (\$)	Quantity (cy)	Estimated Cost	Reference/ Index Table	Item No. in table
3.2.2	Building Demolition	Subtotal		\$2,227,750	N/A	N/A
3.2.2.1	PreDemolition Activities	N/A	N/A	N/A	N/A	N/A
N/A	Nuclear Gauge Removal* ⁶	LS	N/A	\$56,215	*6	N/A
N/A	Equipment Mobilization and Demobilization	LS	N/A	\$18,235	Table 22	N/A
3.2.2.2	Mill Demolition and Placement in Primary Impoundment	N/A	N/A	N/A	N/A	N/A
N/A	Mill Facility (Bldg, Equip, Conc. Fnd, Piping, Electrical)* ⁶	N/A	N/A	\$2,153,300	*6	N/A
3.2.6	Excavating, Moving and Placing the Contaminated Materials into the Cell Area	Subtotal		\$1,001,826	N/A	N/A
3.2.6.1	Excavate Soils	N/A	N/A	N/A	N/A	N/A
N/A	Strip & Place Mill Area in Primary Imp. (Below 6 inches)	\$2.26	92,290	\$208,546	Table 20	1
N/A	Strip & Place Other On-Site Soils in Primary Imp.(0 to 6 inches)	\$2.65	219,290	\$581,838	Table 20	2
N/A	Strip & Place Off-Site Soils in Primary Imp. ¹²	N/A	N/A	N/A	Table 20	3
N/A	Area A	\$2.46	1,900	\$0	See RAP Surety	N/A
N/A	Areas B & C	\$3.37	49,800	\$0	See RAP Surety	N/A
N/A	Area D	\$3.47	85,000	\$0	See RAP Surety	N/A
3.2.6.2	NW Borrow Area	N/A	N/A	N/A	N/A	N/A
N/A	Remove & Stockpile Topsoil in the NW Borrow	\$1.43	56,500	\$80,521	Table 20	4
N/A	Regrade, Contour, & Re-topsoil Northwest Borrow	\$1.43	56,500	\$80,521	Table 20	5
N/A	Seed, Fertilize & Mulch Northwest Borrow Area (quantity in acres)	\$720.00	70	\$50,400	Table 20	6
3.2.7	Capping the Cell	Subtotal		\$6,188,262	N/A	N/A
3.2.7.1	Tailings	N/A	N/A	N/A	N/A	N/A
N/A	Dewater Primary Impoundment* ⁶	LS	N/A	\$81,435	Table 17	N/A
N/A	Regrade Primary Impoundment* ⁵	LS	N/A	\$118,000	*5	N/A
N/A	Construct Lower Random Fill (OP, NW borrow, windblown)	\$3.05	196,500	\$598,513	Table 20	7
N/A	Construct Clay Radon Barrier	\$2.57	196,500	\$504,387	Table 20	8
3.2.7.2	Construct Random Fill	N/A	N/A	N/A	N/A	N/A
N/A	Construct Lower Random Fill ³	\$2.65	393,000	\$1,042,739	Table 20	9
N/A	Construct Upper Random Fill	\$3.49	294,800	\$1,027,388	Table 20	10
N/A	Reduce Slope From 3:1 to 5:1	\$1.15	240,000	\$276,725	Table 20	11
N/A	Rip-rap 5:1 Slope	\$2.50	77,400	\$193,522	Table 20	12
3.2.7.3	Liner Extension	N/A	N/A	N/A	N/A	N/A
N/A	Regrade Slope	\$1.65	27,800	\$45,785	Table 20	13
N/A	Install Synthetic Liner Material* ⁵ (in sq. feet)	\$0.61	575,000	\$350,132	Table 20	14
N/A	Construct Clay Liner	\$2.57	13,900	\$35,665	Table 20	15
N/A	Construct Liner Protection Layer	\$2.57	20,800	\$53,355	Table 20	16
N/A	Purchase & Deliver to Mill Site, 9" Rip-rap Material for all 5:1 Slopes & Lining for Diversion Channels* ⁶	\$10.15	128,100	\$1,300,055	Table 20	17
3.2.7.4	Primary Impoundment Diversion Channel	N/A	N/A	N/A	N/A	N/A
N/A	Construct Channel	\$4.78	38,900	\$186,091	Table 20	18
N/A	Line With Riprap	\$2.68	23,300	\$62,387	Table 20	19
3.2.7.5	Secondary Impoundment Diversion Channel	N/A	N/A	N/A	N/A	N/A
N/A	Construct Channel	\$4.68	56,300	\$263,346	Table 20	20
N/A	Line with Riprap	\$1.78	27,400	\$48,738	Table 20	21
N/A	Groundwater Remediation	Subtotal		\$1,235,199	N/A	N/A
N/A	Solidify Primary Impoundment Solutions* ⁵	LS	N/A	\$236,000	*5	N/A
N/A	Lincoln Park	N/A	N/A	\$0	See RAP Surety	N/A
N/A	OPA	N/A	N/A	\$0	See RAP Surety	N/A
N/A	Golf Course	N/A	N/A	\$820,895	See ground water	N/A
N/A	006 Area	N/A	N/A	\$0	See RAP Surety	N/A
N/A	Close Wells (70 wells)	\$2,547	70	\$178,304	Table 24	N/A
N/A	Final Site Reclamation	Subtotal		\$403,942	N/A	N/A
N/A	Topsoil Mill Area	\$1.51	24,200	\$36,635	Table 20	22
N/A	Topsoil Impoundments	\$2.05	98,300	\$201,685	Table 20	23
N/A	Topsoil Old Pond Area	\$1.63	101,800	\$165,622	Table 20	24
N/A	Seed, Fertilize and Mulch*⁵	Subtotal		\$293,140	N/A	N/A
N/A	Mill Area (quantity in acres)	\$624.81	30	\$18,744	Table 20	25
N/A	Impoundments (quantity in acres)	\$633.99	147.5	\$93,513	Table 20	26
N/A	Old Ponds & On & Off-Site (quantity in acres)	\$624.81	289.5	\$180,882	Table 20	27
N/A	SITE AND MILL DECOMMISSIONING (all above subtotals)	Subtotal		\$11,350,120	N/A	N/A
3.2.1	Planning and Preparation - 15% SITE & MILL DECOMMISSIONING	Subtotal		\$1,702,518	Table 23	N/A
N/A	Radiation Program & Ind. Hygiene*⁴	Subtotal		\$1,248,513	N/A	N/A
N/A	1st year Support Personnel	N/A	N/A	\$425,630	*1	N/A

N/A	1st year Lab Analysis of Samples	N/A	N/A	\$141,877	*1	N/A
N/A	Years 2-5 Support and Lab Analysis @ 30% per year of 1st year costs	N/A	N/A	\$681,007	N/A	N/A
N/A	Contractor Supervision, Overhead and Profit - 11.75% SITE & MILL DECOMMISSIONING	Subtotal		\$1,333,639	N/A	N/A
N/A	Administration, Contingency, and Final Survey	Subtotal		\$4,767,050	N/A	N/A
N/A	State Attorney Cost	N/A	N/A	\$2,000	N/A	N/A
N/A	Long Term Surveillance Fee	Separate Bonding Mechanism		N/A	N/A	N/A
N/A	State Administration Fee - 10% SITE & MILL DECOMMISSIONING	N/A	N/A	\$1,135,012	N/A	N/A
3.2.11	Final Survey - 7% SITE & MILL DECOMMISSIONING	N/A	N/A	\$794,508	N/A	N/A
3.2.12	Contingency - 25% SITE & MILL DECOMMISSIONING	N/A	N/A	\$2,837,530	N/A	N/A
GRAND TOTAL RML SURETY		RML TOTAL		\$20,401,841	N/A	N/A

- 1 Note: See summary explanation
- 2 Note: See "RAP" Financial Surety
- 3 Note: Fill Material to Be "Near Background Soils From Wind Blown and Other Sources"
- 4 Note: Radiation Program (Personnel & Sampling) is Estimated at 5% of Project Cost
- 5 CPI-U calculated at 18% over 2003 spreadsheet figure
- 6 Note: Third party contractor bid

COTTER MILL SITE SUMMARY - RAP

NRC Code	Task Description	Unit Cost (\$)	Quantity (cy)	Estimated Cost	Reference/ Index Table	Item No. in table
N/A	Area A	\$2.46	1,900	\$4,669	Table 20	3
N/A	Areas B & C	\$3.37	49,800	\$167,859	Table 20	3
N/A	Area D	\$3.47	85,000	\$294,810	Table 20	3
N/A	Lincoln Park Groundwater	N/A	N/A	\$169,118	*6	N/A
N/A	Facilities Area Groundwater	N/A	N/A	\$1,137,515	*6	N/A
N/A	006 Area Groundwater	N/A	N/A	\$1,117,348	*6	N/A
GRAND TOTAL RAP SURETY		RAP TOTAL		\$2,891,319	N/A	N/A

6 Note: Third party contractor bid

Dewatering the Primary Impoundment - Table 17

	Yearly		
Pumping costs	\$	3,429	*A
Misc costs	\$	<u>1,000</u>	*A
Total	\$	4,429	
15 years of operation	\$	66,435	*B
Replacement pumps	\$	<u>15,000</u>	*A
Total	\$	<u><u>81,435</u></u>	

- A Estimated pumping costs referenced in the Engineering Analytic's Report.
- B Estimated number of years to dewater in the NWH Globle Report.

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
1	Strip & Place Mill Area in Primary Imp. (Below 6 inches)	92,290	984	93.8	\$208,545.68	\$2.26
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
2	Strip & Place Other On-Site Soils in Primary Imp.(0 to 6 inches)	219,290	838	261.7	\$581,837.99	\$2.65
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
3	Strip & Place Off-Site Soils in Primary Imp. *2					
	Area A	1,900	908	2.1	\$4,668.93	\$2.46
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
	Areas B & C	49,800	660	75.5	\$167,859.26	\$3.37
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
	Area D	85,000	641	132.6	\$294,809.77	\$3.47
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
4	Remove & Stockpile Topsoil in the NW Borrow	56,500	1,338	42.2	\$80,521.30	\$1.43
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	0	\$157.25	\$0.00	
		5000 Gal. Water Truck	0	\$114.90	\$0.00	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	0	\$43.06	\$0.00	
				Total (\$/Hr)	\$1,908.09	
5	Regrade, Contour, & Re-topsoil Northwest Borrow	56,500	1,338	42.2	\$80,521.30	\$1.43
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	0	\$157.25	\$0.00	
		5000 Gal. Water Truck	0	\$114.90	\$0.00	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	0	\$43.06	\$0.00	
				Total (\$/Hr)	\$1,908.09	
6	Seed, Fertilize & Mulch Northwest Borrow Area (quantity in acres)	70	acres		\$50,400.00	\$720.00
		Item	Units Cost (\$ / Acre)	Acres	Total (\$)	
		Soil Prep, Fertilize, Seeding *5	\$300.00	70.0	\$21,000.00	
		Straw Mulch and Crimp *5	\$420.00	70.0	\$29,400.00	
		Total	\$720.00	70.0	\$50,400.00	

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
8	Construct Clay Radon Barrier	196,500			\$504,387.01	\$2.57
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
		Dozer Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		D9-T Dozer	1	\$193.91	\$193.91	
		Blasting Prod	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		4" Blast-Hole Rig, Tracked	5	\$88.89	\$88.89	
		Blast Supplies C	1	\$128.45	\$128.45	
				Total	\$217.33	
		Yds	BCY/Hr	Hrs	Cost (\$)	Cost/BCY
		Scrapper Fleet Prod	196500	1230	\$355,283.57	\$1.81
		Dozer Fleet Prod	98250	625	\$30,482.28	\$0.31
		Blasting Prod	49125	90	\$118,621.15	\$2.41
				Total	\$504,387.01	\$2.57
7	Construct Lower Random Fill (OP, NW borrow, windblown)	196,500	730	269.2	\$598,512.75	\$3.05
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
9	Construct Lower Random Fill *3	393,000			\$1,089,886.78	\$2.77
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
		Dozer Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		D9-T Dozer	1	\$193.91	\$193.91	
		Blasting Prod	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		4" Blast-Hole Rig, Tracked	5	\$88.89	\$88.89	
		Compressor, 900 CFM	1	\$47.51	\$47.51	
		Blast Supplies C	1	\$128.45	\$128.45	
				Total	\$264.85	
		Yds	BCY/Hr	Hrs	Cost (\$)	Cost/BCY
	Scraper Fleet Prod	393000	1185	331.6	\$737,246.76	\$1.88
	Dozer Fleet Prod	196500	600	327.5	\$63,504.76	\$0.32
	Blasting Prod	98250	90	1,091.7	\$289,135.27	\$2.94
				Total	\$1,089,886.78	\$2.77
10	Construct Upper Random Fill	294,800	638	462.1	\$1,027,387.60	\$3.49
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
11	Reduce Slope From 3:1 to 5:1	240,000	626	383.4	\$276,725.29	\$1.15
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		D8-T Dozer	2	\$153.98	\$307.95	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
				Total (\$/Hr)	\$721.77	

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
12	Rip-rap 5:1 Slope	77,400	106	730.2	\$193,521.95	\$2.50
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		950-H Loader 4.25	1	\$73.11	\$73.11	
		16-M Blade	1	\$141.66	\$141.66	
		8 cy. Truck	1	\$50.26	\$50.26	
				Total (\$/Hr)	\$265.03	
13	Regrade Slope	27,800	1,326	21.0	\$45,785.00	\$1.65
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	0	\$43.06	\$0.00	
				Total (\$/Hr)	\$2,180.24	
14	Install Synthetic Liner Material*5 (in sq. feet)	575,000	136	4,227.9	\$350,131.88	\$0.61
			Units (sq. ft)	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		Liner Cost *5	575000	\$0.54	\$310,500.00	
		Install Cost *5	575000	\$0.15	\$86,250.00	
					\$396,750.00 *	
	*Contractor quote was reduced by 11.75% to account for profit					
15	Construct Clay Liner	13,900			\$35,664.79	\$2.57
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
		Dozer Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		D9-T Dozer	1	\$193.91	\$193.91	

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
		Blasting Prod	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		4" Blast-Hole Rig, Tracked5	1	\$88.89	\$88.89	
		Blast Supplies C	1	\$128.45	\$128.45	
				Total	\$217.33	
		Yds	BCY/Hr	Hrs	Cost (\$)	Cost/BCY
	Loader/Truck Fleet Prod	13900	1230	11.3	\$25,123.31	\$1.81
	Dozer Fleet Prod	6950	625	11.1	\$2,152.37	\$0.31
	Blasting Prod	3475	90	38.6	\$8,389.11	\$2.41
				Total	\$35,664.79	\$2.57
16	Construct Liner Protection Layer	20,800			\$53,354.59	\$2.57
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	1	\$43.06	\$43.06	
				Total (\$/Hr)	\$2,223.30	
		Dozer Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		D9-T Dozer	1	\$193.91	\$193.91	
		Blasting Prod	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		4" Blast-Hole Rig, Tracked5	1	\$88.89	\$88.89	
		Blast Supplies C	1	\$128.45	\$128.45	
				Total	\$217.33	
		Yds	BCY/Hr	Hrs	Cost (\$)	Cost/BCY
	Scraper Fleet Prod	20800	1230	16.9	\$37,573.79	\$1.81
	Dozer Fleet Prod	10400	625	16.6	\$3,218.87	\$0.31
	Blasting Prod	5200	90	57.8	\$12,561.93	\$2.42
				Total	\$53,354.59	\$2.57
17	Purchase & Deliver to Mill Site, 9" Rip-rap Material for all 5:1 Slopes & Lining for Diversion Channels*6	128,100			\$1,300,054.88	\$10.15

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
	Item	Location	Units Cost (\$ / CY)	Quantity (CY)	Total (\$)	
	Purchased Rip-rap	Prim & Sec Imp Slopes	\$11.50	77,400	\$890,100.00	
	Purchased Rip-rap	P1 Channel	\$11.50	23,300	\$267,950.00	
	Purchased Rip-rap	S1 Channel	\$11.50	27,400	\$315,100.00	
		Total	\$11.50	128,100	\$1,473,150.00	
Note: Rip-rap cost estimate based on "verbal quote from Tezak's, The Aggregate Source, Inc. February 2009						
Rip-rap specifications are 9" D ₅₀ as per Earth Sciences Reclamation Plan.						
Rip-rap thickness is 1.5 times the D ₅₀ specification = 14", as per NRC's final						
Staff Technical position and the final Reclamation Plan.						
*Contractor quote was reduced by 11.75% to account for profit						
18	Primary Impoundment Construct Channel	38,900			\$186,091.24	\$4.78
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		980-G/H Loader (7 cy)	1	\$162.43	\$162.43	
		770-C 35 Ton Truck	5	\$167.83	\$839.17	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	0	\$43.06	\$0.00	
				Total (\$/Hr)	\$1,415.41	
		Dozer Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		D9-T Dozer	1	\$193.91	\$193.91	
		Blasting Prod	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		4" Blast-Hole Rig, Tracked	5	\$88.89	\$88.89	
		Compressor, 900 CFM	1	\$47.51	\$47.51	
		Blast Supplies C	1	\$128.45	\$128.45	
				Total	\$264.85	
		Yds	BCY/Hr	Hrs	Cost (\$)	Cost/BCY
	Loader/Truck Fleet Prod	38900	449	86.6	\$122,574.84	\$3.15
	Dozer Fleet Prod	19450	600	32.4	\$6,282.61	\$0.32
	Blasting Prod	19450	90	216.1	\$57,233.79	\$2.94
				Total	\$186,091.24	\$4.78
19	Primary Impoundment Line With Riprap	23,300	99	235.4	\$62,387.11	\$2.68

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		950-H Loader 4.25	1	\$73.11	\$73.11	
		16-M Blade	1	\$141.66	\$141.66	
		8 cy. Truck	1	\$50.26	\$50.26	
				Total (\$/Hr)	\$265.03	
	Secondary Impoundment					
20	Construct Channel	56,300			\$263,345.55	\$4.68
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		980-G/H Loader (7 cy)	1	\$162.43	\$162.43	
		770-C 35 Ton Truck	5	\$167.83	\$839.17	
		825-H Compactor	1	\$157.25	\$157.25	
		5000 Gal. Water Truck	1	\$114.90	\$114.90	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	0	\$43.06	\$0.00	
				Total (\$/Hr)	\$1,415.41	
		Dozer Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		D9-T Dozer	1	\$193.91	\$193.91	
		Blasting Prod	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		4" Blast-Hole Rig, Tracked	5	\$88.89	\$88.89	
		Compressor, 900 CFM	1	\$47.51	\$47.51	
		Blast Supplies C	1	\$128.45	\$128.45	
				Total	\$264.85	
		Yds	BCY/Hr	Hrs	Cost (\$)	Cost/BCY
	Loader/Truck Fleet Prod	56300	465	121.1	\$171,406.62	\$3.04
	Dozer Fleet Prod	28150	600	46.9	\$9,094.27	\$0.32
	Blasting Prod	28150	90	312.8	\$82,844.66	\$2.94
				Total	\$263,345.55	\$4.68
	Secondary Impoundment					
21	Line with Riprap	27,400	149	183.9	\$48,738.27	\$1.78
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		950-H Loader 4.25	1	\$73.11	\$73.11	
		16-M Blade	1	\$141.66	\$141.66	
		8 cy. Truck	1	\$50.26	\$50.26	
				Total (\$/Hr)	\$265.03	

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
22	Topsoil Mill Area	24,200	1,261	19.2	\$36,635.28	\$1.51
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	0	\$157.25	\$0.00	
		5000 Gal. Water Truck	0	\$114.90	\$0.00	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	0	\$43.06	\$0.00	
				Total (\$/Hr)	\$1,908.09	
23	Topsoil Impoundments	98,300	930	105.7	\$201,684.86	\$2.05
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	0	\$157.25	\$0.00	
		5000 Gal. Water Truck	0	\$114.90	\$0.00	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	0	\$43.06	\$0.00	
				Total (\$/Hr)	\$1,908.09	
24	Topsoil Old Pond Area	101,800	1,173	86.8	\$165,622.00	\$1.63
		Production Fleet	Units	Hourly Rate (\$/Hr)	Total (\$/Hr)	
		637-G Scraper (31 cy)	6	\$294.40	\$1,766.42	
		825-H Compactor	0	\$157.25	\$0.00	
		5000 Gal. Water Truck	0	\$114.90	\$0.00	
		16-M Blade	1	\$141.66	\$141.66	
		Farmhand Tractor	0	\$43.06	\$0.00	
				Total (\$/Hr)	\$1,908.09	
25	Seed, Fertilize and Mulch Mill Area (quantity in acres)				\$18,744.30	\$624.81
		Item	Units Cost (\$ / Acre)	Acres	Total (\$)	
		Soil Prep, Fertilize, Seeding *5	\$295.00	30.0	\$8,850.00	
		Straw Mulch and Crimp *5	\$413.00	30.0	\$12,390.00	
		Total	\$708.00	30.0	\$21,240.00	
	*Contractor quote was reduced by 11.75% to account for profit					
	Seed, Fertilize and Mulch					

Soil Stripping and Impoundment Reclamation - Table 20

Item No.	Task Description	Yardage Quantity (BCY)	Fleet Production Rate (BCY/Hr)	Total Hours	Total (\$)	Cost Per BCY (\$/BCY)
26	Impoundments (quantity in acres)				\$93,513.23	\$633.99
		Item	Units Cost (\$ / Acre)	Acres	Total (\$)	
		Soil Prep, Fertilize, Seeding *5	\$295.00	147.5	\$43,512.50	
		Straw Mulch and Crimp *5	\$413.00	147.5	\$60,917.50	
		Mobilization (1 time fee)	\$1,534.00		\$1,534.00	
		Total	\$2,242.00	147.5	\$105,964.00	
	*Contractor quote was reduced by 11.75% to account for profit					
	Seed, Fertilize and Mulch					
27	Old Ponds & On & Off-Site (quantity in acres)	289.5			\$180,882.50	\$624.81
	Item	Units Cost (\$ / Acre)	Acres - On Site	Acres - Off Site	Total (\$)	
	Soil Prep, Fertilize, Seeding *5	\$295.00	126.0	163.5	\$85,402.50	
	Straw Mulch and Crimp *5	\$413.00	126.0	163.5	\$119,563.50	
	Total	\$708.00			\$204,966.00	
	*Contractor quote was reduced by 11.75% to account for profit					
2	Note: See "RAP" Financial Surety					
3	Note: Fill Material to Be "Near Background Soils From Wind Blown and Other Sources"					
5	CPI-U calculated at 18% over 2003 spreadsheet figure					
6	Note: Third party contractor bid					

Dirt Moving and Labor - Table 21

RSMeans Code	Equipment Type	Monthly Rental Rate ^A	Hourly			Total (\$/Hr)
			Rate (176 hrs/mo)	O & M (\$/HR) ^A	Wages (\$/Hr) ^B	
01 54 33 20 3600	637-G Scraper (31 cy)	\$ 21,272.90	\$120.87	\$ 151.19	\$22.34	\$294.40
01 54 33 20 4810	980-G/H Loader (7 cy)	\$ 11,503.80	\$65.36	\$ 74.73	\$22.34	\$162.43
01 54 33 20 3320	825-H Compactor	\$ 11,595.10	\$65.88	\$ 69.02	\$22.34	\$157.25
01 54 33 20 4730	950-H Loader 4.25	\$ 4,154.15	\$23.60	\$ 27.16	\$22.34	\$73.11
01 54 33 20 4730	938-G Loader 3.25 cy	\$ 4,154.15	\$23.60	\$ 27.16	\$22.34	\$73.11
01 54 33 20 0325	Hyd Exc 3.125 cy	\$ 17,438.30	\$99.08	\$ 102.07	\$22.34	\$223.50
01 54 33 20 0200	Hyd Exc w/Shear	\$ 6,915.98	\$39.30	\$ 41.18	\$22.34	\$102.81
01 54 33 20 0200	Hyd Exc 1.5 cy	\$ 6,915.98	\$39.30	\$ 41.18	\$22.34	\$102.81
01 54 33 20 4360	D9-T Dozer	\$ 14,881.90	\$84.56	\$ 87.01	\$22.34	\$193.91
01 54 33 20 4310	D8-T Dozer	\$ 11,686.40	\$66.40	\$ 65.23	\$22.34	\$153.98
01 54 33 20 1930	16-M Blade	\$ 11,503.80	\$65.36	\$ 53.96	\$22.34	\$141.66
01 54 33 20 0470	430-D/E Backhoe	\$ 3,834.60	\$21.79	\$ 23.24	\$22.34	\$67.37
01 54 33 20 5600	770-C 35 Ton Truck	\$ 13,329.80	\$75.74	\$ 69.75	\$22.34	\$167.83
01 54 33 20 5550	730 25 Ton Truck	\$ 9,586.50	\$54.47	\$ 50.95	\$22.34	\$127.76
01 54 33 20 5250	8 cy. Truck	\$ 1,780.35	\$10.12	\$ 22.41	\$17.73	\$50.26
01 54 33 40 6900	5000 Gal. Water Truck	\$ 6,345.35	\$36.05	\$ 61.13	\$17.73	\$114.90
01 54 33 60 3050	Crane 22 ton 4WD	\$ 5,569.30	\$31.64	\$ 35.47	\$22.34	\$89.46
01 54 33 40 6465	Farmhand Tractor	\$ 2,145.55	\$12.19	\$ 13.15	\$17.73	\$43.06
No RSMeans Code	4" Blast-Hole Rig, Tracked ⁵	\$ 8,850.00	\$50.28	\$ 16.26	\$22.34	\$88.89
01 54 33 40 7700	Welder 200 Amp w/Trailer	\$ 145.17	\$0.82	\$ 3.31	\$19.86	\$24.00
01 54 33 40 0180	JLG 45' Boom	\$ 3,012.90	\$17.12	\$ 16.53	\$22.34	\$55.99
01 54 33 40 6360	Torch 300 Amp	\$ 178.04	\$1.01	\$ 8.63	\$19.86	\$29.50
01 54 33 40 0900	Compressor, 900 CFM	\$ 1,917.30	\$10.89	\$ 36.62	N/A	\$47.51

Blast Supplies ^C	Qty Per Hole	Unit Cost	Cost Per Hole	Holes Per Hour	Cost Per Hour
Cast Boosters (ea)	1.00	\$11.00	\$11.00	5.00	\$55.00
Det Cord (ft)	40.00	\$0.30	\$12.00	5.00	\$60.00
Caps (ea)	1.00	\$3.50	\$3.50	5.00	\$17.50
Anfo (lbs)	8.70	\$0.30	\$2.61	5.00	\$13.05
					\$145.55
			Total	\$29.11	\$128.45

Blast Assumptions

Capable Drill Rate (Ft/Hr)	100.00
Prod Drilling (Ft/Hr)	50.00
Drill Time	50.00%
Move & Blast Time	50.00%
Holes Per Hr (10'/hole)	5.00
BCY / Hole	18.00
Blasted BCY / Hr	90.00

A Costs quote provided by 23rd Edition 2009 RSMeans Heavy Construction Cost Data

B Costs quote from May 2008 (most recent) Occupational Wages in Southeastern Colorado on Bureaus of Labor Statistics website www.bls.gov.

C Blasting quote provided per phone call from Buckley Powder 2/5/2009. Quote adjusted by 11.75% for Contractor profit.

5 Costs based on unidentifiable sources adjusted for CPI-U increase.

Dirt Moving and Labor - Table 21

Labor		Bureau of Labor Statistics ^B		
SOC Code	Occupational Title	Median Wage	Cost (Mean Wage + 35% overhead)	
472061	Common Laborers	\$ 13.13	\$ 17.73	
472073	Truck Drivers	\$ 16.55	\$ 22.34	
472111	Electricians	\$ 17.52	\$ 23.65	
	Construction Managers/Labor			
471011	Foreman	\$ 24.93	\$ 33.66	
472073	Equipment Operators	\$ 16.55	\$ 22.34	
472073	Exc Operator	\$ 16.55	\$ 22.34	
472073	Shear Operator	\$ 16.55	\$ 22.34	
472073	FEL Operator	\$ 16.55	\$ 22.34	
472073	Scraper Operator	\$ 16.55	\$ 22.34	
472073	Crane Operator	\$ 16.55	\$ 22.34	
472152	Welder	\$ 14.71	\$ 19.86	
472152	Plumbers	\$ 14.71	\$ 19.86	
472152	Pipefitters	\$ 14.71	\$ 19.86	

Equipment Mobilization - Table 22

Equipment Type	Code	Quantity	RSMeans	Cost
637-E Scraper (32 cy)	01-54-36.500700	6	\$ 518.00	\$ 3,108.00
980-G/H Loader (7 cy)	01-54-36.500100	2	\$ 346.00	\$ 692.00
825-H Compactor	01-54-36.500020	2	\$ 181.00	\$ 362.00
950-H Loader 4.25	01-54-36.500020	2	\$ 181.00	\$ 362.00
938-G Loader 3.25 cy	01-54-36.500020	2	\$ 181.00	\$ 362.00
Hyd Exc 3.125 cy	01-54-36.500020	2	\$ 181.00	\$ 362.00
Hyd Exc w/Shear	01-54-36.500020	2	\$ 181.00	\$ 362.00
Hyd Exc 1.5 cy	01-54-36.500020	2	\$ 181.00	\$ 362.00
D9-T Dozer	01-54-36.500020	2	\$ 181.00	\$ 362.00
D8-T Dozer	01-54-36.500020	2	\$ 181.00	\$ 362.00
16-M Blade	01-54-36.500020	2	\$ 181.00	\$ 362.00
430-D/E Backhoe	01-54-36.500020	2	\$ 181.00	\$ 362.00
770-C 40 Ton Truck	2 hours labor for driver only	5	\$ 44.68	\$ 223.40
730 31 Ton Truck	2 hours labor for driver only	5	\$ 44.68	\$ 223.40
8 cy. Truck	2 hours labor for driver only	2	\$ 44.68	\$ 89.36
4000 Gal. Water Truck	2 hours labor for driver only	1	\$ 44.68	\$ 44.68
Crane 22 ton 4WD	01-54-36.502000	1	\$ 703.00	\$ 703.00
Farmhand Tractor	2 hours labor for driver only	1	\$ 44.68	\$ 44.68
4" Blast-Hole Rig, Tracked	01-54-36.500020	1	\$ 181.00	\$ 181.00
Welder 200 Amp w/Trailer	01-54-36.501100	1	\$ 47.05	\$ 47.05
JLG 45' Boom	01-54-36.501100	1	\$ 47.05	\$ 47.05
Torch 300 Amp	01-54-36.501100	1	\$ 47.05	\$ 47.05
Compressor, 900 CFM	01-54-36.501100	1	\$ 47.05	\$ 47.05
Total for mobbing equipment to the site.				\$ 9,117.72

The RSMeans Cost includes equipment and labor for up to a 50 mile round trip (from the rental location to Cotter and back)

Two hours labor was included as move costs for equipment that is road ready.

Cost in Summary Chart is double to account for returning equipment to rental outlet.

Closing of RML and RAP Wells - Table 24

RML Licensed Wells	42
RAP Licensed Wells	<u>28</u>
Total Wells to close	70
Estimated cost per linear foot	\$31.84 *A
Estimated Depth per well in linear feet	80 *B
Estimated cost to close all wells	<u><u>\$178,304</u></u>
Estimate cost per well	\$2,547

- A Cotter used actual costs billed by a 3rd party contractor for previous well closures of \$31.84 per linear foot
- B Cotter estimated that each well is on average 80 feet deep