



Coastal
The Energy People

Wayne, Review + Route To File

~~ACT/001/005~~

refile →
SUFCO
Folder #4
ACT/041/002

RECEIVED

JUN 29 1992

**DIVISION OF
OIL GAS & MINING**

June 25, 1992

Darron Haddock
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Mr. Haddock:

Southern Utah Fuel Company did not submit an updated bond calculation for the SUFCO mine located in East Spring Canyon with the revised PAP. The updated bond amount revised by Mr. Western was based in part on an old non-approved reclamation scheme for the SUFCO mine. Accordingly, a detailed reclamation estimate has been prepared based on the final reclamation plan in Chapter 5 of the PAP and the configuration shown on Plate 5-3. A copy of this bond estimate is enclosed for your review prior to our July 8, 1992 meeting.

Sincerely,
SOUTHERN UTAH FUEL COMPANY

Wesley K. Sorensen, P.E.
Chief Engineer

WKS:jad#317

Southern Utah Fuel Company

A SUBSIDIARY OF THE COASTAL CORPORATION
397 SOUTH 800 WEST • SALINA UT 84654 • 801/637-4880

SUFCO BOND ESTIMATE

THE UNIT PRICES DEVELOPED BELOW ARE USED IN THIS BOND ESTIMATE:

Concrete Demolition		\$8.50	cu yd	
Concrete Disposal onsite		\$5.65	cu yd	
Total Concrete Removal		\$14.15	cu yd	
Steel building demolition		\$0.26	cu ft	
Disposal off site 20% volume of building		\$9.15	cu yd	
Masonry bldg demolition		\$0.20	cu ft	
Disposal offsite nonmasonry 10% volume of bldg		\$9.15	cu yd	
CMP pipe excavation and demolition		\$21.72	linear ft	
Pre-split blasting of rock		\$44.95	cu yd	
Cut/Fill and Grading assume using D9 size dozer & compactor place fill in 8" lifts with 2 passess		\$5.41	cu yd	
Backfill of portal entries and tunnel		\$7.89	cu yd	
Conveyor structures are 9 ft x 4 ft @	\$0.26	cu ft	\$9.36	ft of structure
Paving demolition		\$5.60	cu yd	
Paving disposal onsite		\$5.65	cu yd	
Total paving removal		\$11.25	cu yd	
Machine laid riprap		\$20.00	cu yd	
Filter fabric placement and bedding		\$2.00	sq yd	
Binwall removal use a cat 245 class backhoe excavate dirt out on 1H:1V slope cut sheeting free dispose of sheeting off site 5 % of wall volume		\$4.94	cu yd for removal	
		\$9.15	cu yd for disposal	

SUFCO BOND ESTIMATE

ACTIVITY	TOTALS
Close Portals	
Remove No.1 Belt structure to tipple 200 ft @ \$9.36 ft of structure	\$1,872
Build three pumpable seals prior to backfilling portals 3 @ \$3,000 each	\$9,000
Remove mine fans and associated fan houses 2 @ \$7,000 each	\$14,000
Remove concrete collar at fan portal and backfill 33 @ \$14.15 cu yd of concrete	\$467
150 @ \$7.89 cu yd of fill	\$1,184
Subtotal	\$26,522

Notes:

concrete will be buried on site with at least 4 ft of cover
 belt and intake portals will be backfilled as part of normal regrading

Remove Structural Steel Buildings & Connecting Conveyors

Loadout Bin		
38,850 cu ft @ \$0.26 cu ft of structure		\$10,101
18 cu yd @ \$14.15 cu yd of concrete		\$255
Tipple Building		
105,056 cu ft @ \$0.26 cu ft of structure		\$27,315
93 cu yd @ \$14.15 cu yd of concrete		\$1,314
Loadout Conveyor		
259 ft @ \$9.36 ft of structure		\$2,424
68 cu yd @ \$14.15 cu yd of concrete		\$962
Transfer Conveyor		
81 ft @ \$9.36 ft of structure		\$758
Stacker Conveyor		
173 ft @ \$9.36 ft of structure		\$1,619
8 cu yd @ \$14.15 cu yd of concrete		\$113
ROM Stacker Conveyor		
345 ft @ \$9.36 ft of structure		\$3,229
24 cu yd @ \$14.15 cu yd of concrete		\$340
ROM Reclaim Conveyor		
280 ft @ \$9.36 ft of structure		\$2,621
11 cu yd @ \$14.15 cu yd of concrete		\$150
Catenary 42" Reclaim Belt No.1		

SUFCO BOND ESTIMATE

1,650 cu ft @	\$0.26 cu ft of structure	\$429	
38 cu yd @	\$14.15 cu yd of concrete	\$535	
Catenary 42" Reclaim Belt No.2			
1,250 cu ft @	\$0.26 cu ft of structure	\$325	
0 cu yd @	\$14.15 cu yd of concrete	\$0	
Sampler Building			
15,625 cu ft @	\$0.26 cu ft of structure	\$4,063	
4 cu yd @	\$14.15 cu yd of concrete	\$52	
Stacker Tube			
2,462 cu ft @	\$0.26 cu ft of structure	\$640	
30 cu yd @	\$14.15 cu yd of concrete	\$425	
ROM Stacker Tube			
7,238 cu ft @	\$0.26 cu ft of structure	\$1,882	
0 cu yd @	\$14.15 cu yd of concrete	\$0	
Dispose of structure assume 20% volume			
1,579 cu yd @	\$9.15	\$14,443	
		Subtotal	\$73,995

Note: all concrete will be buried on site with minimum of 4 ft cover.

Remove metal buildings and foundations

Shop and Warehouse			
269,360 cu ft @	\$0.26 cu ft of structure	\$70,034	
505 cu yd @	\$14.15 cu yd of concrete	\$7,143	
Shed			
4,003 cu ft @	\$0.26 cu ft of structure	\$1,041	
5 cu yd @	\$14.15 cu yd of concrete	\$68	
Motor House			
3,072 cu ft @	\$0.26 cu ft of structure	\$799	
9 cu yd @	\$14.15 cu yd of concrete	\$134	
Snow Plow Garage			
10,260 cu ft @	\$0.26 cu ft of structure	\$2,668	
Office Building			
217,927 cu ft @	\$0.26 cu ft of structure	\$56,661	
240 cu yd @	\$14.15 cu yd of concrete	\$3,393	
Tipple Scale Building and Scale			
90,200 cu ft @	\$0.26 cu ft of structure	\$23,452	
52 cu yd @	\$14.15 cu yd of concrete	\$736	
Truck Scale			
3,200 cu ft @	\$0.26 cu ft of structure	\$832	

SUFCO BOND ESTIMATE

27 cu yd @	\$14.15	cu yd of concrete	\$388	
Ambulance Garage				
4,608 cu ft @	\$0.26	cu ft of structure	\$1,198	
11 cu yd @	\$14.15	cu yd of concrete	\$159	
Contractors Office				
8,910 cu ft @	\$0.26	cu ft of structure	\$2,317	
Dispose of structure assume 20% volume				
4,530 cu yd @	\$9.15		\$41,448	
			Subtotal	\$212,469

Note: all concrete will be buried on site with minimum of 4 ft cover.

Remove concrete block buildings

<u>Covered Storage</u>				
47,813 cu ft @	\$0.20	cu ft of structure	\$9,563	
120 cu yd @	\$14.15	cu yd of concrete	\$1,698	
<u>Record Storage</u>				
2,800 cu ft @	\$0.20	cu ft of structure	\$560	
40 cu yd @	\$14.15	cu yd of concrete	\$566	
<u>Steam Cleaner Building</u>				
18,720 cu ft @	\$0.20	cu ft of structure	\$3,744	
96 cu yd @	\$14.15	cu yd of concrete	\$1,358	
<u>Shop Garage</u>				
cu ft @	\$0.20	cu ft of structure	\$0	
cu yd @	\$14.15	cu yd of concrete	\$0	
<u>Rock Dust Building and Tanks</u>				
9,982 cu ft @	\$0.20	cu ft of structure	\$1,996	
24 cu yd @	\$14.15	cu yd of concrete	\$333	
<u>ROM MCC Building</u>				
1,870 cu ft @	\$0.20	cu ft of structure	\$374	
22 cu yd @	\$14.15	cu yd of concrete	\$314	
<u>Electrical Building</u>				
1,700 cu ft @	\$0.20	cu ft of structure	\$340	
4 cu yd @	\$14.15	cu yd of concrete	\$56	
<u>Tipple Office Building</u>				
7,900 cu ft @	\$0.20	cu ft of structure	\$1,580	
36 cu yd @	\$14.15	cu yd of concrete	\$509	
Dispose of structure assume 10% volume				
336 cu yd @	\$9.15		\$3,077	
			Subtotal	\$26,068

SUFCA BOND ESTIMATE

Note: all concrete and concrete block will be buried on site with minimum of 4 ft cover.

Remove Concrete Bins

Sand and Salt Bin			
75 cu yd @	\$14.15	cu yd of concrete	\$1,061
Stoker Coal Storage			
329 cu yd @	\$14.15	cu yd of concrete	\$4,655
Lump Coal Storage			
35 cu yd @	\$14.15	cu yd of concrete	\$495
Sediment Trap			
76 cu yd @		cu yd of concrete	\$1,075
		Subtotal	\$7,297

Note: all concrete will be buried on site with minimum of 4 ft cover.

Remove Bin walls

ROM Stockpile binwall			
249 cu yd @	\$14.15	cu yd of concrete	\$3,523

Note: concrete retaining wall along east of ROM will be buried in place as will reclaim tunnel.

sq ft	binwall fac	6,854	14.12 ft deep =	3,584	cu yd		
volume of excavation = bin volume + 1H:1V slope behind							
slope vol	height avg	20.93	length	240	1,928	cu yd	
	total volume to excavate			5,513	cu yd @	\$4.94	\$27,233
	total volume to dispose of			179	cu yd @	\$9.15	\$1,640

Substation Pad Binwall

	61	cu yd @	\$14.15	cu yd of concrete	\$865		
sq ft	lower face	3,108	14.3 ft deep =	1,646	cu yd		
sq ft	lower S.F.	909	16.5 ft deep =	556	cu yd		
sq ft	lower N.F.	808	16.5 ft deep =	494	cu yd		
sq ft	upper face	2,155	14.3 ft deep =	1,141	cu yd		
sq ft	upper S.F.	1,800	16.5 ft deep =	1,100	cu yd		
sq ft	upper N.F.	1,720	16.5 ft deep =	1,051	cu yd		
volume of excavation = bin volume + 1H:1V slope behind							
slope vol	upper hgt	25.33	length	234	2780	cu yd	
slope vol	lower hgt	28	length	212	3078	cu yd	
	total volume to excavate			11,846	cu yd @	\$4.94	\$58,520
	total volume to dispose of			299	cu yd @	\$9.15	\$2,739

Subtotal \$94,520

Plug and Remove CMP's and Tunnels

SUFCA BOND ESTIMATE

42" Mud Spring Canyon CMP removal			
180 lin ft @	\$21.72 per linear ft		\$3,910
72" East Spring Canyon CMP removal			
1,075 lin ft @	\$21.72 per linear ft		\$23,349
48" East Spring Canyon CMP removal			
505 lin ft @	\$21.72 per linear ft		\$10,969
24" CMP from sediment trap to sediment pond removal			
250 lin ft @	\$21.72 per linear ft		\$5,430
Backfill ROM 84" Escapeway CMP			
108 cu yd @	\$7.89 cu yd of fill		\$854
Backfill Concrete Reclaim Tunnel			
600 cu yd @	\$7.89 cu yd of fill		\$4,737
		Subtotal	\$49,249

Paving Removal

Demolish Loading Dock			
15 cu yd @	\$14.15 cu yd of concrete		\$209
Demolish paving in front of shop			
184 cu yd @	\$11.25 cu yd of asphalt		\$2,070
142 cu yd @	\$14.15 cu yd of concrete		\$2,014
Demolish paving in front of office			
467 cu yd @	\$11.25 cu yd of asphalt		\$5,250
Demolish roadway paving			
608 cu yd @	\$11.25 cu yd of asphalt		\$6,842
Demolish Fuel Dock			
32 cu yd @	\$14.15 cu yd of concrete		\$459
		Subtotal	\$16,844

Note: All paving materials and concrete will be buried on site at least 4 ft deep.

Cut/Fill and Grading

74,734 cu yd @	\$5.41 cu yd of cut/fill		\$404,460
----------------	--------------------------	--	-----------

Drainage Channel Construction

Note: Main channel is to be constructed in rock. Worst case is assumed with rock requiring pre-split blasting before loading onsite experience indicates only limited if any blasting required.

Main Channel

	Resch 1	face length	575
	30.5	ft of riprap per foot of face of channel.	Riprap depth 5 ft
riprap volume	3248	cu yd @	\$20.00
			\$64,954

SUFco BOND ESTIMATE

filter fabric area	1949	sq yd @	\$2.00		\$3,897
Excavation of this reach is included in cut volume above					
		b	d	z	length
Reach 2	17.50	6.00	1.00	95	
area/perimeter/volume	141	34	496	cu yd @	\$44.95 \$22,300
Excavation of this reach is included in cut volume above					
Reach 3	17.50	6.00	1.00	235	
area/perimeter/volume	141	34	1227	cu yd @	\$44.95 \$55,164
Excavation of this reach is included in cut volume above					
Reach 4	17.50	7.50	1.00	390	
area/perimeter/volume	188	39	2708	cu yd @	\$44.95 \$121,740
Excavation of this reach is included in cut volume above					
Reach 5	10.00	5.50	0.75	90	
area/perimeter/volume	78	24	259	cu yd @	\$44.95 \$11,640
Excavation of this reach is included in cut volume above					
Reach 6	10.00	5.50	0.75	150	
area/perimeter/volume	78	24	432	cu yd @	\$44.95 \$19,400
Excavation of this reach is included in cut volume above					
Reach 7	17.50	5.50	1.00	105	
area/perimeter/volume	127	33	492	cu yd @	\$44.95 \$22,113
Excavation of this reach is included in cut volume above					
Reach 8	17.50	5.50	1.00	175	
area/perimeter/volume	127	33	820	cu yd @	\$44.95 \$36,855
Excavation of this reach is included in cut volume above					
Upper intercept ditch					
b,d,z,length		0	1	3	265
area/perimeter/riprap vol	3	6	93	cu yd @	\$20.00 \$1,862
filter fabric area			186	sq yd @	\$2.00 \$372
Lower intercept ditch					
b,d,z,length		0	1	3	225
area/perimeter/riprap vol	3	6	79	cu yd @	\$20.00 \$1,581
filter fabric area			158	sq yd @	\$2.00 \$316
East collector channel will be ripraped lined with a thickness of 1.5 ft					
Reaches B-1, B-2, B-4, & B-5					
b,d,z,length		2	2	1	1800
area/perimeter/riprap vol	8	8	766	cu yd @	\$20.00 \$15,314
filter fabric area			1531	sq yd @	\$2.00 \$3,063
Reach B-3					
b,d,z,length		3	3	1	80
area/perimeter/riprap vol	18	11	51	cu yd @	\$20.00 \$1,021

SUFCA BOND ESTIMATE

filter fabric area		102 sq yd @	\$2.00	\$204	
West collector channel to be excavated in rock will not require riprap					
Reaches A-1 & A-2					
b,d,z,length		2 2 1	510		
area/perimeter/volume	8 8	151 cu yd @	\$44.95	\$6,792	
Reaches A-3, A-4 & A-5					
b,d,z,length		2 3 1	810		
area/perimeter/volume	15 10	450 cu yd @	\$44.95	\$20,228	
				Subtotal	\$813,276
Ripping					
Bonded area includes 27.79 acres at minesite					
	27.79 acres @	\$300 per acre		\$8,337	
				Subtotal	\$8,337
Topsoil Distribution					
Bonded area includes 27.79 acres at minesite					
	27.79 acres @	\$1,800 per acre		\$50,022	
<u>Revegetation</u>					
Fertilization					
	27.79 acres @	\$400 per acre		\$11,116	
Seeding					
	27.79 acres @	\$1,600 per acre		\$44,464	
Seedlings					
	27.79 acres @	\$2,200 per acre		\$61,138	
Mulch					
	27.79 acres @	\$1,100 per acre		\$30,569	
				Subtotal	\$147,287
<u>Monitoring and Maintenance</u>					
Hydrologic					
	10 years @	\$4,200 per year		\$42,000	
Vegetation					
	10 years @	\$1,000 per year		\$10,000	
Erosion					
	10 years @	\$3,300 per year		\$33,000	
					\$85,000
				MINESITE TOTAL	\$1,560,855
				w/o contingency	

Waste Rock Disposal Site

Coastal States Energy Company
Southern Utah Fuel Company

Mine and Reclamation Plan
June 24, 1992

SUFCO BOND ESTIMATE

See Volume 3 Appendix 3 for details of calculation

Estimated amount in 1989 dollars \$35,731 escalate 2% per year to 1992 \$39,575

TOTAL FOR SUFCO MINE \$1,599,532

Contingency

10 percent of total \$159,953

GRAND TOTAL FOR SUFCO \$1,759,485