



**BLACKHAWK ENGINEERING, CO.**

DAN GUY

0012

8/30/99

Caron,

~~to [redacted]~~

Here are 3 copies of  
the Appendix 3-4 and other  
info on the Storage Coal  
Terminal Bond.

Please let me know  
if you need anything  
else.

Thanks,

Dan



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

September 18, 1997

James Jensen  
Savage Industries, Inc.  
5250 South 300 West, Suite 200  
Salt Lake City, Utah 84107

Re: Approval of Revised Reclamation Cost Estimate, (Midterm Review), Savage Coal Industries, Savage Coal Terminal, ACT/007/022-MT97, Folder #2, Carbon County, Utah

Dear Mr. Jensen:

As a follow up to the Mid Term review, Savage submitted a revised reclamation cost estimate for the Savage Coal Terminal on July 31, 1997. Taking this new information into account we have recalculated the bond for the Savage loadout and have determined that the appropriate bond should be \$2,525,000.00. This is based on the year 2001 dollars.

Since the bond currently posted for the Savage Loadout (\$2,728,178.00) exceeds the amount required, no adjustment is necessary at this time.

Savage may choose to retain the current bond amount in order to cover future permitting actions and contingencies or reduce the bond amount to \$2,525,000.00 if so desired. A copy of the Division's bond cost summary is enclosed for your information and files.

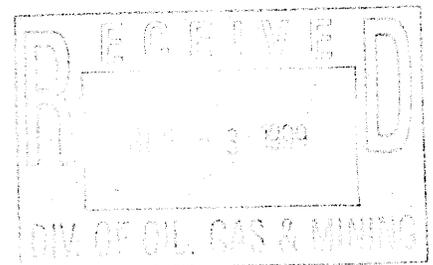
If you have any questions, please don't hesitate to call me or Wayne Western.

Sincerely,

Daron R. Haddock  
Permit Supervisor

tat  
Enclosure

cc: Dan Guy, Blackhawk Engineering  
Boyd Rhodes, Savage Industries  
William Malencik, DOGM  
O:\007022.SAV\FINAL\BONDAPPR.LTR





**Savage Industries Inc.**  
2025 E. 5000 S.  
Price, Utah 84501  
(801) 637-5664  
(801) 637-3418 FAX

*July 29, 1997*

*Pamela Grubaugh-Littig  
Permit Supervisor  
Utah Coal Regulatory Program  
P. O. Box 145801  
Salt Lake City, Utah 84114-5801*

*Re: Revised Reclamation Cost Estimate  
Savage Coal Terminal  
ACT / 007 / 022  
Carbon County, Utah*

*Dear Ms. Littig:*

*Enclosed are 4 copies of a revised reclamation cost estimate for the Savage Coal Terminal. The revised estimate and calculations are submitted as an Appendix to the plan.*

*If you have any questions, or need any further information, please let me know.*

*Sincerely,*

*Boyd Rhodes  
Manager*

*cc: Paige Beville - Arco  
Dan W. Guy - Blackhawk Engineering  
File*

# APPLICATION FOR PERMIT PROCESSING

Permit Change <input checked="" type="checkbox"/>	New Permit <input type="checkbox"/>	Renewal <input type="checkbox"/>	Transfer <input type="checkbox"/>	Exploration <input type="checkbox"/>	Bond Release <input type="checkbox"/>	Permit Number: <u>ACT10071022</u>
Title of Proposal: <u>REVISED RECLAMATION COST ESTIMATE</u>						Mine: <u>SAVAGE COAL TERMINAL</u>
						Permittee: <u>SAVAGE INDUSTRIES, I.</u>

Description, include reason for application and timing required to implement:

REQUESTED BY DIVISION

Instructions: If you answer yes to any of the first 7 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to an inspector.

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Change in the size of the Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Does application include operations in hydrologic basins other than as currently approved?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Is the application submitted as a result of a Violation? Violation # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Is the application submitted as a result of a Division Order? D.O. # _____
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	10. Is the application submitted as a result of other laws or regulations or policies? Explain: <u>MID-TERM REVIEW</u>
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	21. Have reclamation costs for bonding been provided for?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	22. Is proposed activity within 100 feet of a public road or perennial stream or 300 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	23. Is this coal exploration activity?

Attach 4 complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

[Signature] 7-31-97  
Signed - Name - Position - Date

Subscribed and sworn to before me this 31 day of July, 1997  
Dana Ballard  
Notary Public  
My Commission Expires: 9-27, 1997  
Attest: [Signature]  
STATE OF  
COUNTY OF



**DANA BALLARD**  
NOTARY PUBLIC - STATE OF UTAH  
865 EAST 2800 SOUTH  
PRICE, UTAH 84501  
COMM. EXP. 9-27-97

Received by Oil, Gas & Mining

ASSIGNED PERMIT CHANGE NUMBER





*APPENDIX 3-4*

*Reclamation Cost Estimate*

*July 1997*

APPENDIX 3-4  
COST ESTIMATE

I. RECLAMATION COST ESTIMATE

A. COST OF RECLAMATION

1. INTRODUCTION

*Reclamation cost estimates for the Savage Coal Terminal have been calculated per Division requirements listed in the 05/06/97 Midterm Review. Demolition and labor costs have been taken from the "Means Heavy Construction Data," 9<sup>th</sup> Annual Edition, 1995. Equipment productivity rates were taken from the "Caterpillar Performance Handbook", 25<sup>th</sup> Edition, 1994.*

*Reclamation costs have been divided into the following major categories:*

*Demolition / Disposal  
Recontouring  
Topsoiling  
Revegetation  
Maintenance / Monitoring*

*The following assumptions have been used in these calculations:*

- (1) All steel demolition costs include haulage to a recycling facility within 20 miles of the loadout. No salvage value is assumed;*
- (2) All exposed concrete will be broken up and buried on site. Calculations are based on haulage and disposal of the concrete in the Reclaim Tunnel areas, Plant Overflow Pond and Sediments Ponds 1, 2, 3 and 5.*
- (3) Certain portable structures will be hauled off site as units; however, no salvage value is assumed;*
- (4) Calculations include removal and revegetation of the sediment ponds;*
- (5) Cost estimates taken from "Means Heavy Construction Cost Data" have not been adjusted;*
- (6) The French Drain will be severed and plugged at the pumphouse location;*
- (7) The pipeline from the river will be severed and plugged at the river pump and main pumphouse locations;*
- (8) Large concrete structures (i.e. Silo, Stacking Tubes) will be brought down by explosives, then further broken up and buried.*

The following is a list of labor and equipment rates, as well as disposal costs, used in these calculations:

ITEM	COST / UNIT	SOURCE	REMARKS
<u>Labor</u>	30.95/MH	Means	Includes O&P
<u>Demolition</u>			
Chain Link	2.29/LF	Means	Includes O&P
Guard Rail	5.85/LF	Means	Includes O&P
Pavement	6.15/SY	Means	Includes on-site Disposal
Concrete	23.48/CY	Means	Includes on-site Disposal
Asphalt (3")	4.02/SY	Means	Includes O&P
Asphalt (6")	6.60/SY	Means	Includes O&P
Disposal - 5 Mi.	10.70/CY	Means	To Recycler
Railroad Track/Ties	16.25/LF	Means	Includes O&P
Gutting (Prep. Plant)	5.90/SF (Floor)	Means	Includes Disposal
Large Concrete (Explosives)	0.19/CF	Means	Includes O&P
12" C.M.P.	5.80/LF	Means	Includes O&P
15" C.M.P.	6.80/LF	Means	Includes O&P
18" C.M.P.	7.65/LF	Means	Includes O&P
24" C.M.P.	8.50/LF	Means	Includes O&P
36" C.M.P.	11.30/LF	Means	Includes O&P
Small Buildings	0.23/CF	Means	Includes 20 mile Haul
Steel Structures	0.23/CF	Means	Includes 20 mile Haul
Disposal (Land Fill)	35.00/CY	Means	Approved Land Fill
<u>Earthmoving</u>			
613 Scraper	1.66/CY	Means	150' Haul
988 Cat Loader	3.16/CY	Means	Earth
Dump Truck-12 CY	3.35/CY	Means	2 mile Round Trip
235 Cat Excavator	1.58/CY	Means	N/A
D9N-9U Dozer	3.23/CY	Means	300' Haul
Grader/Scarifier	4.37/MSF	Means	Includes O&P
Tractor Spreader	21.50/MSF	Means	Includes O&P
Large Power Mulcher	20.50/MSF	Means	Includes O&P
Hydro Spreader	2.02/MSF	Means	Includes O&P
<u>Equipment</u>			
D9N-9U Dozer	196.88/hr.	Cat Handbook/Means	
988 Cat Loader	175.00/hr.	Cat Handbook/Means	
12 CY Dump Truck	53.75/hr.	Cat Handbook/Means	
235 Cat Excavator	262.50/hr.	Cat Handbook/Means	
Hydraulic Hammer	31.25/hr.	Cat Handbook/Means	

SUMMARY OF RECLAMATION COSTS

1- Demolition / Disposal	-	\$738,855.74
2- Recontouring / Ground Preparation	-	347,823.97
3- Topsoiling	-	123,687.50
4- Reseeding	-	257,750.34
5- Monitoring	-	150,000.00

Projected Reclamation Costs	=	\$1,618,117.55
+ 10% Contingency	=	161,811.76

Total Reclamation Cost (1995 Dollars)	=	<u>\$1,779,929.31</u>
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<u>Year</u>	<u>Escalation Factor</u>	<u>Escalated Total</u>
1996	2.01%	\$1,815,705.88
1997	2.01%	\$1,852,201.57
1998	2.01%	\$1,889,430.82
1999	2.01%	\$1,927,408.38

Total estimated reclamation cost in 1999 dollars is \$1,927,408.38. The reclamation bond presented posted for this site is \$2,728,178.00. Based on these calculations, the existing bond is adequate.

Concrete Demolition / Burial

(a) Assumptions:

- 1- Concrete will be broken up with a Balderson Hydraulic Hammer, Model 140, mounted on a Cat 235 Excavator;
- 2- The Balderson Hammer productivity was based on breakage of 20,000 psi material with a thickness less than 20 inches, taken from the "Caterpillar Performance Handbook", Edition 25.
- 3- Breakage productivity was reduced by 50% due to moving from location to location;
- 4- Operating costs of \$293.75/hr. for the excavator and hammer were taken from the 1995 Means "Heavy Construction Cost Index".
- 5- Calculated breakage costs were doubled to allow for reinforcement in the concrete.
- 6- Disposal cost of \$6.40/c.y. for on-site disposal was taken directly from Means.

(b) Calculation:

Balderson Hammer Productivity	=	\$ 550 c.y. / 8 Hr.
50% Efficiency	=	\$ 275 c.y. / 8 Hr.
Production (Breakage) per hour	=	\$ 34.38 c.y./Hr.

Demolition Cost:

\$293.75/Hr. Divided by 34.38 cy / Hr.	= *	\$ 8.54 /c.y.
Double for reinforcement	=	\$17.08 /c.y.

Disposal Cost (On-Site)	=	\$ 6.40 /c.y.
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<b>TOTAL Concrete Cost</b>	=	<b>\$23.48/c.y.</b>
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\* It should be noted this figure agrees closely with the figure of \$8.10/c.y. for concrete building demolition, taken from Means.

Note: Large concrete structures (silo, stacking tubes) will be brought down by explosives prior to final breakage and disposal.

The following is a detailed summary of costs and justifications used in the reclamation cost estimate.

**SAVAGE - BOND**  
**DEMOLITION / DISPOSAL**

<u>STRUCTURE</u>	<u>SIZE</u>	<u>MATERIAL</u>	<u>DEMOLISH REMOVE</u>	<u>DISPOSAL</u>	<u>COST/UNIT</u>	<u>COST</u>
<b><u>SHOP/OFFICE</u></b>						
Building	100'x45'x10'	Steel	Demolish	Haul	0.23/CF	10,350.00
Concrete	100'x45'x6"	Concrete	Demolish	On-Site	23.48/CY	1,956.67
Fence	240'x6'	Steel	Demolish	Haul	2.29/LF	549.60
<b><u>SCALE</u></b>						
Scale House	12'x12'x8'	Steel	Demolish	Haul	0.23/CF	264.96
Scales	75'x15'x3'	Unit	Remove	Haul	0.23/CF	776.25
Concrete	15 CY	Concrete	Demolish	On-Site	23.48/CY	352.20
<b><u>NO. 1 TRUCK DUMP</u></b>						
Hopper	16'x16'x22'	Steel	Demolish	Haul	0.23/CF	1,295.36
Crusher	16'x6'x8'	Steel	Remove	Haul	0.23/CF	176.64
Bin Wall	200'x30'	Steel	Demolish	Haul	0.23/CF	1,380.00
Concrete	30'x40'x1'	Concrete	Demolish	On-Site	23.48/CY	1,043.56
<b><u>NO. 2 TRUCK DUMP</u></b>						
Hopper	16'x16'x22'	Steel	Demolish	Haul	0.23/CF	1,295.36
Concrete	120'x8'x1'	Concrete	Demolish	On-Site	23.48/CY	834.84
<b><u>NO. 3 TRUCK DUMP</u></b>						
Hopper	14'x14'x20'	Steel	Remove	Haul	0.23/CF	901.60
Concrete	20'x20'x1'	Concrete	Demolish	On-Site	23.48/CY	347.85
<b><u>NO. 4 TRUCK DUMP</u></b>						
Hopper	16'x16'x20'	Steel	Remove	Haul	0.23/CF	1,177.60
Concrete	48'x4'x2'	Concrete	Demolish	On-Site	23.48/CY	333.94
<b><u>NO. 5 TRUCK DUMP (PORT.)</u></b>						
Hopper	30'x14'x8'	Steel	Remove	Haul	0.23/CF	772.80
Concrete	10'x15'x1'	Concrete	Demolish	On-Site	23.48/CY	130.44
<b><u>36" CONVEYOR</u></b>						
8 Conveyors	1980'x4'x4'	Steel	Remove	Haul	0.23/CF	6,918.40
<b><u>48" CONVEYOR</u></b>						
1 Conveyor	1500'x7'x4'	Steel	Remove	Haul	0.23/CF	9,660.00

<u>STRUCTURE</u>	<u>SIZE</u>	<u>MATERIAL</u>	<u>DEMOLISH REMOVE</u>	<u>DISPOSAL</u>	<u>COST/UNIT</u>	<u>COST</u>
<u>NO. 4 RADIAL STACKER</u>						
Stacker	200'x8'x8'	Steel	Remove	Haul	0.23/CF	2,944.00
<u>NO. 5 RADIAL STACKER</u>						
Stacker	100'x6'x6'	Steel	Remove	Haul	0.23/CF	828.00
<u>CONVEYOR PIERS</u>						
40 Piers	40 (3'x3'x6')	Concrete	Demolish	On-Site	23.48/CY	1,878.40
<u>SUPPORT STRUCTURE</u>						
Steel Supports	18 (300'x1'x1')	Steel	Demolish	Haul	0.23/CF	1,242.00
<u>WATER TANK</u>						
Tank	21,390	Steel	Demolish	Haul	0.23/CF	4,919.70
Concrete	90 cu. yds.	Concrete	Demolish	On-Site	23.48/CY	2,113.20
<u>RECLAIM TUNNELS</u>						
Corrugated Steel	1040'x14'x8'	Steel	Demolish	Haul	0.23/CF	26,790.40
Escape Tunnels	160'x4'Diam.	Steel	Demolish	Haul	0.23/CF	462.44
Fan	2 (4'x4'x4')	Steel	Remove	Haul	0.23/CF	29.44
Fan House	8'x8'x8'	Steel	Remove	Haul	0.23/CF	117.76
<u>PORTABLE HOPPER</u>						
Hopper	20'x12'x14'	Steel	Remove	Haul	0.23/CF	772.80
<u>TRAILER</u>						
Trailer	30'x8'x8'	Unit	Remove	Haul	0.23/CF	441.60
<u>TRANSFER BIN</u>						
Bin	30'x16' Diam.	Steel	Remove	Haul	0.23/CF	346.83
Concrete	20'x20'x1'	Concrete	Demolish	On-Site	23.48/CY	347.85
<u>PREPARATION PLANT</u>						
Building	110'x80'x80'x0.35	Steel	Demolish	Haul	0.23/CF	56,672.00
Concrete	110'x80'x1'	Concrete	Demolish	On-Site	23.48/CF	7,652.74
Thickener	750 CY	Concrete	Demolish	On-Site	23.48/CF	17,610.00
Gutting	4 (110'x80')	Mix	Demolish	Haul	5.90/SF/Floor	207,680.00

<u>STRUCTURE</u>	<u>SIZE</u>	<u>MATERIAL</u>	<u>DEMOLISH REMOVE</u>	<u>DISPOSAL</u>	<u>COST/UNIT</u>	<u>COST</u>
<u>SUB STATION</u>						
Transformers	2 Units	Unit	Remove	Haul	\$250/ea	500.00
Fence	180'	Steel	Remove	Haul	23.48/CY	412.20
Concrete	20'x27'x.5'	Concrete	Remove	On-Site	23.48/CY	234.80
Building	20'x27'x8'	Metal	Remove	Haul	0.23/CF	993.60
<u>FUEL STATION</u>						
Tanks	3 Tanks	Unit	Remove	Haul	\$100/ea	300.00
Trailer	10'x50'x8'	Unit	Remove	Haul	0.23/CF	920.00
Concrete Wall	30'x30'x4'x8"	Concrete	Demolish	On-Site	23.48/CY	
Concrete Floor	30'x30'x6"	Concrete	Demolish	On-Site	23.48/CY	671.01
<u>RECLAIM CONTROL HOUSE</u>						
Structure	22'x16'x12'	Steel	Demolish	Haul	0.23/CF	971.52
Concrete	22'x22'x0'5'	Concrete	Demolish	On-Site	23.48/CY	153.06
<u>SAMPLE HOUSE</u>						
Structure	22'x22'x30'	Steel	Demolish	Haul	0.23/CF	3,339.60
Concrete	22'x22'x0.5'	Concrete	Demolish	On-Site	23.48/CY	210.45
<u>STACKING TUBE</u>						
4 Tubes	20'Dx24"Wx200'H	Concrete	Explosives		0.19/CF	3,820.19
4 Tubes	186 CY/Tube	Concrete	Demolish	On-Site	23.48/CY	17,469.12
<u>LOADOUT SILO</u>						
1 Silo	50'Dx24"Wx200'H	Concrete	Explosives		0.19/CF	11,938.08
1 Silo	2327 CY	Concrete	Demolish	On-Site	23.48/CY	54,640.57
<u>RAILROAD</u>						
Rail/Ties	8100'	Steel/Wood	Demolish	Haul	16.25/LF	131,625.00
<u>POWERLINE</u>						
Poles	25	Wood	Demolish	Haul	\$100/ea	2,500.00
<u>ASPHALT</u>						
Haul Road	4700'x24'x6"	Asphalt	Demolish	Haul	6.60/SY	82,720.00
Parking Lot	50'x140'x3"	Asphalt	Demolish	Haul	4.02/SY	3,126.67
<u>PUMPHOUSE</u>						
Structure	40'x26'x10'x0.35	Mix	Demolish	Haul	\$35/CY	4,718.52
Shallow Tank	12' Diam.x8'	Steel	Demolish	Haul	0.23/CF	69.37
Deep Tank	21' Diam.x30'	Steel	Demolish	Haul	0.23/CF	260.12
Concrete	40'x26'x0.5'	Concrete	Demolish	On-Site	23.48/CY	452.21

<u>STRUCTURE</u>	<u>SIZE</u>	<u>MATERIAL</u>	<u>DEMOLISH REMOVE</u>	<u>DISPOSAL</u>	<u>COST/UNIT</u>	<u>COST</u>
<u>RIVER PUMP</u>						
Pumphouse	8'x8'x8'	Unit	Remove	Haul	0.23/CF	117.76
Concrete	8'x8'x1'	Concrete	Demolish	Haul	23.48/CY	55.66
<u>GUARD RAILS</u>						
Rails	4950'	Steel	Demolish	Haul	\$5.85/LF	28,957.50
<u>CULVERTS</u>						
12"	300'	Steel	Demolish	Haul	\$5.80/LF	1,740.00
18"	810'	Steel	Demolish	Haul	7.65/LF	6,196.50
24"	750'	Steel	Demolish	Haul	8.50/LF	6,375.00

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*Sub-Total Demolition Cost =* \$738,855.74

EARTHWORK COSTS

(1) General:

*The Savage Coal Terminal is a relatively flat area, sloping less than 5%, and contains no highwalls or large cut slopes. Once the demolition is completed, the majority of the site will be brought to the final configuration by dozers. This includes all areas except the topsoil stockpile areas. The refuse pile will be reshaped to its final configuration by dozers, and the topsoil will be spread over the refuse area by scrapers.*

*Based on the site configuration, dozer push distance will not exceed 300' on average; therefore, the dozer cost of \$3.23/CY has been taken directly from Means.*

*Cost of transport of topsoil to the refuse pile by scrapers has also been taken from Means, based on a 613 Cat scraper with a 1500' Haul. This cost is \$2.50/CY. There are presently 49,475 cubic yards of topsoil/subsoil stored on site.*

(2) Summary:

*Recontouring - Dozer 98,639CY x \$3.23/CY = \$318,603.97*

*Topsoiling - Scraper 49,475CY x \$2.50/CY = \$123,687.50*

*A mass balance for earthwork has not been completed at this site, since the bulk of the earthwork will involve relatively minor regrading and ripping by dozers. The earthwork volume is based on regrading and ripping of the top 6" of the entire 122.28 acre disturbed area. The total volume of earthwork based on this calculation is 98,639 cubic yards.*

PROJECT	QUANTITY	EQUIPMENT	COST/UNIT	COST
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**RECONTOURING / GROUND PREPARATION**

Cleanup Coal Piles

3000 CY	D9 Dozer	3.23/CY	9690.00
3000CY	988 Loader	3.16/CY	9480.00
3000CY	12 CY Truck	3.35/CY	10,050.00

Recontour / Regrade

98,639	CY	D9 Dozer	3.23/CY	\$347,823.97
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*Sub-Total*      \$347,823.97

**TOPSOILING**

Topsoil

49,475	CY	613 Scraper	2.50/CY	\$123,687.50
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*Sub-Total*      \$123,687.50

**REVEGETATION**

Ground Preparation	125.0 Ac.	Grader/Scarifier	190.36/Ac.	23,277.22
Seeding	125.0 Ac.	Tractor Spreader	936.54/Ac.	114,520.11
Mulching	125.0 Ac.	Large Power Mulcher	892.98/Ac.	109,193.59
Fertilizer	125.0 Ac.	Hydro Spreader	87.99/Ac.	10,759.42

*Sub-Total*      \$257,750.34

**MAINTENANCE/MONITORING**

10 Years @ 15,000/yr.	=	\$150,000.00
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*Sub-Total*      =      \$150,000.00

*Total Cost*      =      \$1,618,117.55