

#### **Section 4.2.4 - Reclamation Costs - (Worst Case)**

In accordance with Section 69-05.2-12-07 of the North Dakota Administrative Code, estimated costs for the following three items have been determined:

1. Backfilling and Grading
2. Replacing Suitable Plant Growth Material
3. Revegetation

The reclamation costs for NAFK-8405, -8705, and -9503 have been calculated by utilizing the methods and procedures as outlined by the Public Service Commission's "Guideline for estimating reclamation costs for establishing performance bond amounts for permit areas" dated December 31, 1985 and as revised on October 28, 1998. The following is a summary of the reclamation costs calculations.

#### **Worst Case Reclamation Liability**

The worst case reclamation liability was determined by utilizing the pits which need the greatest volume of material to backfill, in conjunction with the area over which the removal of suitable plant growth material is the largest. This would take place 4<sup>th</sup> Quarter, 2006.

By utilizing the Reclamation Schedule - Section 4.2.2, it was determined that the worst case situation will require the inclusion of SPGM respread and revegetation costs under the mining disturbance category over the area indicated. Also included as part of the worst case situation are the associated active support structures. The Worst Case Bond Plan Map, Section 4.2.4b, of this permit revision depicts the disturbance areas associated with the worst case reclamation liability situation.

Certain general assumptions are made when determining the reclamation costs for each of the three operations. They are as follows:

1. Reclamation work will be completed by utilizing a 992G Loader, 777D trucks, 657E push-pull tractor-scraper, D11N and D9R bulldozers, 16H motor graders, and a water wagon. The projected operating cost per hour for each piece of equipment was based on July, 2005 values.
2. Table of Equipment Costs:

<u>Equipment</u>	<u>Cost Per Hour</u>
a) 657E push-pull tractor-scraper	\$ 224.98
b) D11N bulldozer	\$ 234.93
c) D9R bulldozer	\$ 145.75
d) 16H motor grader	\$ 107.35
e) Water wagon	\$ 107.35
f) 992G loader	\$ 222.35
g) 777D trucks	\$ 178.51

The scraper-truck breakeven haul distance was calculated at 5,200 feet. The truck-FEL fleet was utilized where haul distances exceed 5,200 feet.

3. Support Equipment Usage:

<u>Equipment</u>	<u>Process</u>	<u>Cost Factor</u>
a) 16G motor grader	Final grading	1 hr./6 scraper hrs.
	SPGM respread	1 hr./6 scraper hrs.
	Loader/Truck fleet	1 hr./loader hr.
b) Water wagon	SPGM respread	1 hr./12 scraper/loader hrs.
c) D9R Dozer	SPGM Respread	1 hr/loader hr.

4. Backfilling and Grading (General):

Backfilling and grading volumetrics were calculated using the typical cross-sectional area multiplied by the pit length.

- a) Average pit width is: 180' (9503), 245' (8705), 200' (8405)
- b) Average angle of repose is: 35°
- c) Average highwall angle is: 55°
- d) The overburden will swell 5-10 percent after being removed from above the coal.

5. Normal Spoils:

Additional assumptions:

- a) The normal spoil regrade costs were based on grading the area occupied by four spoil peaks from the open pit.
- b) The spoil peaks will be regraded utilizing D-11N bulldozers and 657E push-pull scrapers.
- c) The average push distances for the D-11N bulldozers and haul distance for the 657E scrapers were based on cross-sections (refer to Section 4.2.4a).

6. Open Pit and Spoil Placement Areas:

- a) The balance of cut and fill material for the backfilling of the open pit is depicted in Section 4.2.4a.

- b) The material located in the deferred reclamation area will be utilized to backfill a portion of the open pit.
  - c) The average push or haul distance will be determined by utilizing the centroids of the cut areas and fill location of the open pit.
7. Pit Slope Ramps (down to pit bottom):

The average slope of the pit ramp to access the active pit will be 6%. Bulldozers will be utilized to regrade the pit ramps.

#### Assumptions for Associated Disturbance

Associated disturbance includes all vegetation disturbance caused by the construction of facilities in support of the mining operation. Support facilities include haulroads, ponds, stockpiles, scraper trails, buildings, diversions, and any other facility not occurring within the mining disturbance area which has been constructed for the specific purpose of supporting mining operations. There are approximately 2,000 acres of associated disturbance within the permits. The following assumptions were used in calculating the volumes for reclaiming the associated disturbance areas under the worst case conditions.

1. Stockpiles were removed, as a part of SPGM respreading.
2. Topsoil thickness was estimated at 12 inches.
3. Subsoil thickness ranged from 12-36 inches, depending on the spoil characteristics of the area.
4. Pond costs were based on regrading fill material with D-11N class dozer or 657E scrapers. The amount of fill material required was based on the pond's detail design drawings.
5. Diversion costs were calculated on the length of the diversion times the average cross-sectional area. Diversions are designed with 3:1 side slopes, a 16 ft. bottom, and 3 ft. deep.  $\text{Area} = 75 \text{ ft.}^2$
6. For the purpose of worst case bonding, the haulage roads and dragline deadhead route were divided into three groups: roads built of subsoil, roads built of ashcrete, and roads built of spoil. The dragline deadhead route and other access roads were assumed to have been built of subsoil. The Worst Case Bonding Plan Map, Section 4.2.4b, shows the location of the different types of roads. Assumptions for calculation of reclamation costs for haulage roads and the deadhead route are as follows:

Haulage Road Width	200 feet (for SPGM respread)
Gravel Surface Width	70 feet (for gravel removal)
Deadhead Route Width	200 feet

Gravel Removal	1.30 yd. <sup>3</sup> /ft. of haul road
Haul Road Length	145,000 feet
Average Road Base Width	100 feet
Average Depth	3 feet
Push Distance	100 feet

7. The assumptions for the calculation of the reclamation costs of the cable belt route are as follows:

Cable Belt Route Width	30 feet
Gravel Removal	1.11 yd. <sup>3</sup> /ft. of route

The cut/fill yd.<sup>3</sup>/ft. of conveyor route is based on approximately 88,000 yd.<sup>3</sup> of cut/fill over the 16,000 feet of conveyor not on an elevated surface. Gravel can be hauled to the pit, the remote truck dump, or a pond for disposal.

8. Respread of topsoil/subsoil was estimated using a 657E class scraper, a 992G loader and 777D trucks.
9. Support equipment costs were estimated using a 16H class motor grader, a 10,000 gallon water truck, and a D9 bulldozer.
10. The average haulage distance for SPGM will be determined by utilizing a haulage road or existing route between the centroids of the respread area and stockpile whenever possible.
11. Reclamation of county and township roads are accounted for as follows:
  - Gravel is assumed to be \$16,000/mile.
  - Culverts are assumed to be \$5,000/mile.
  - Respreading topsoil in road ditches not located in worst case reclamation area - 6" with 20' wide ditches - assume 5,000' haul.
  - Grading cost for public roadway construction - assume 40' wide by 3.5' deep and a 1000' haul.
12. Structures located within the permit that will need to be disassembled and removed:
  - a) Drive House, NW¼, Section 8: 50' x 50' building constructed of 56 tons of steel.  
Run of Belt: Belt and concrete to be hauled to pit and dumped. Line stands weighing approximately 550 pounds and wire rope to be sold for salvage.  
  

$$15,200' / 16 \text{ ft. between linestands} = 1,000 \text{ linestands} \times 550\# / \text{linestand} = 275 \text{ tons}$$

$$\text{Wire rope} - 15,200 (4 \text{ runs})(7\# / \text{ft.}) = 213 \text{ tons}$$

Bridge Structure, W ½, Section 34 (8405): 800' of bridging steel crossing U.S. Highway 83 and the DMVW Railroad and will require approximately 135 tons of steel to be dismantled and removed.

Truck Dump, NE ¼, Section 27 (8405): The truck dump will contain approximately 150 tons of steel and will require approximately 138,000 cubic yards of earthwork. The dirt will be used to grade the truck dump area to meet the approved post-mining topography.

$$\begin{aligned}\text{Total Disassembly} &= 56 \text{ tons} + 275 \text{ tons} + 213 \text{ tons} + 135 \text{ tons} + 150 \text{ tons} \\ &= 829 \text{ tons}\end{aligned}$$

$$\begin{aligned}\text{Assume 35\% of erection costs: } & \$700 \times .35 = \$250/\text{ton} \\ & - \$40/\text{ton (salvage)} = \$210/\text{ton}\end{aligned}$$

$$829 \text{ tons} \times \$210/\text{ton} = \$174,100$$

- b) Demolition of the heat enclosure building in Section 25 (9503): Use 10% of installation cost or \$26,000.

## EARTHWORK CALCULATIONS

D11 DOZER			
PIT RAMP CALCULATIONS:			
	Spoil Angle	35 degrees	
	Ramp Width	70 ft.	
	Ramp Slope	6.0%	
Riverdale - (9503)	Depth of OB To Top Seam	Area at Pit Bottom	Volume (cy)
Ramp R1	40	5,085	62,778
Ramp R2	70	11,898	257,054
Ramp R3	30	3,385	31,346
Total			351,178
Center (N/S) - (8705)			
Ramp 1	55	8,170	138,691
Ramp 2	55	8,170	138,691
Total			277,382
Center (E/W) - (8705)			
Ramp 1	50	7,070	109,111
Ramp 2	70	11,898	257,054
Ramp 3	50	7,070	109,111
Total			475,275
West - (8705)			
Ramp 4	100	21,281	656,836
Total			656,836
Permit K - (8705)			
Total			0
East - (8405)			
Ramp 1	45	6,042	83,917
Ramp 2	50	7,070	109,111
Ramp 3	65	10,584	212,332
Ramp 4	85	16,268	426,794
Total			832,153
Overall Total			2,592,823

Revision 13

Completeness Review Response  
December, 2005

**ASSOCIATED DISTURBANCE**

## Miscellaneous Projects:

D11 Dozer	C.Y.	Push (ft.)	Hours	Length
Ramps	2,592,823	300	3,705	
D/L Deadhead Route (ss)	40,000	100	21	
D/L Deadhead Route/HR Sec B (ss)	13,250	100	7	
Scraper Access Road (ss)	11,305	100	6	
Access Road (ss)	39,897	100	21	
Cable Belt (ss)	73,000	100	39	
Haulroad Subsoil	357,000	100	190	39084
Gravel Pits (8705)	193,000	400	359	
Ash Disposal Area (8705)	475,000	200	468	
Dragline Rebuild Site (8705)	150,000	300	214	

<b>TOTALS</b>	3,945,275		5,031	
<b>AVERAGE</b>		266		

## Ponds:

D11 Dozer	C.Y.	Push (ft.)	Hours
P-E21-01	7,500	200	7
P-E23-04	10,000	200	10
P-E23-05	5,000	400	9
P-E23-06	10,000	200	10
P-E24-01	62,700	200	62
P-E24-02	5,000	150	4
P-E26-01	16,800	300	24
P-E26-02	7,500	200	7
P-E34-01	10,300	250	12
P-E34-02	10,000	250	12
P-E34-03	9,800	250	12
P-E34-04	11,200	150	9
P-E34-05	10,200	250	12
P-E34-07	12,800	200	13
P-E34-08	1,500	75	1
P-E35-01	10,600	250	13
P-E35-02	11,500	100	6
P-R13-02	16,000	300	23
P-R14-01	9,000	300	13
P-R19-02	108,100	300	154
P-R25-03	20,700	300	30
P-R25-04	32,300	300	46
P-R30-01	62,600	300	89
P-R30-03	31,500	300	45
P-W04-01	10,000	300	14
P-W04-02	2,500	150	2
P-W04-03	10,000	150	8
P-W05-01	11,100	200	11
P-W05-02	4,200	150	3
P-W05-03	4,200	200	4
P-W05-04	3,200	200	3
P-W05-05	14,500	250	18
P-W06-02	30,000	300	43
P-W06-03	4,900	200	5
P-W06-04	20,000	100	11
P-W06-05	6,000	250	7
P-W06-06	15,000	300	21
P-W06-07	19,300	350	32
P-W08-02	9,000	200	9
P-W08-03	9,000	200	9
P-W22-01	13,000	300	19
P-W26-01	17,505	100	9

Ponds:			
D11 Dozer	C.Y.	Push (ft.)	Hours
P-W26-02	57,700	300	82
P-W26-03	23,000	300	33
P-W28-01	2,100	250	3
P-W28-02	3,700	250	4
P-W27-01	3,400	100	2
P-W29-04	11,200	200	11
P-W30-03	10,000	250	12
P-W31-01	11,000	450	23
P-W31-02	5,700	300	8
P-W31-03	26,400	250	32
P-W32-01	3,000	200	3
P-W32-02	6,000	400	11
P-W33-01	9,700	350	16
P-W33-02	5,600	350	9
P-W35-01	9,000	400	17
P-W35-03	2,700	600	7
P-W35-04	19,000	300	27
P-W35-05	12,100	250	15
P-W35-06	1,500	100	1
P-W36-02	12,400	300	18
P-W36-03	7,000	350	12

TOTALS	938,205	1196
AVERAGE	265	

Diversions:			
D11 Dozer	C.Y.	Push (ft.)	Hours
D-E23-01	7,500	75	3.1
D-E23-02	770	75	0.3
D-E23-03	660	75	0.3
D-E23-04	880	75	0.4
D-E26-01	1,500	75	0.6
D-E26-02	2,500	75	1.0
D-E34-02	1,330	75	0.6
D-E34-03	4,270	75	1.8
D-E34-04	2,050	75	0.9
D-E34-05	2,270	75	0.9
D-E34-06	2,470	75	1.0
D-E34-07	7,050	75	2.9
D-E34-08	4,560	75	1.9
D-E35-01	4,000	75	1.7
D-E35-02	2,140	75	0.9
D-W35-01	3,750	75	1.6
D-W26-02	2,361	75	1.0
D-W22-03	3,889	75	1.6
D-W22-01	7,778	75	3.2
D-W36-03	1,667	75	0.7
D-W31-02	8,750	75	3.7
D-W31-03	8,444	75	3.5

TOTALS	80,589	33.7
AVERAGE	75	

GRAND TOTAL DOZER	4,964,069	263	6.261
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Revision 13

Completeness Review Response  
December, 2005



## EARTHWORK CALCULATIONS

### **657E SCRAPER**

Ponds\ Diversions:	C.Y.	Haul (ft.)	Hours	Length
P-E26-01	7,470	600	12	
P-E26-03	22,500	4,000	82	
P-E34-03		700	0	
P-E34-08		700	0	
P-E34-06	34,100	1,900	99	
P-E34-07	5,500	600	9	
P-R13-01	42,000	1,500	106	
P-R13-02	50,000	800	124	
D-R13-01	12,527	1,200	28	3,020
D-R13-02	3,879	1,201	9	935
P-R14-01	35,700	1,000	73	
D-R14-01	5,807	1,000	12	1,400
P-R14-02	14,700	1,000	30	
D-R18-01	3,837	1,200	9	925
P-R36-01	100,000	1,900	292	
P-W04-10	6,200	500	10	
P-W05-05	14,500	2,600	40	
P-W06-01	14,800	800	28	
P-W06-02	30,000	1,500	76	
P-W06-06	31,900	1,000	66	
P-W06-07	19,300	1,000	40	
P-W26-02	57,700	500	91	
P-W26-03	3,900	3,000	12	
P-W28-01	284,000	1,000	583	
P-W27-01	1,000	1,000	2	
P-W29-02	26,500	600	44	
P-W30-01	145,200	500	229	
P-W31-01	8,300	800	15	
P-W35-01	19,400	800	36	
P-W35-02	10,000	1,200	22	
P-W36-01/01A	66,100	2,000	199	
<b>Legal Drain Diversion</b>	<b>216,000</b>	<b>3,000</b>	651	
<b>TOTALS</b>	<b>1,292,820</b>	<b>1,480</b>	<b>3,030</b>	

Miscellaneous Projects:	C.Y.	Haul (ft.)	Hours	Length	Loader Production	Loader Hours	Truck Prod/trk	Truck Hours	Number of Trucks
Haulroad Gravel	180,000	4,500	708						
Haulroad Grading (8405)	434,100	1,800	1,225						
Haulroad Grading (8705)	500,000	3,000	1,507		966.5	517	399.8	1,250.6	2.42
Haulroad Grading (9503)	400,000	2,500	1,083						
Cable Belt Cut/Fill	87,000	2,600	241						
Cable Belt Gravel Disposal	20,000	6,500			966.5	21	272.2	73.5	3.55
DL Deadhead Route Grading (ss)	260,000	1,000	534						
Dragline Rebuild Site Gravel	7,500	1,600	20						
Dragline Rebulid Site Grading	20,000	500	32						
Dragline Rebuild Site Concrete	850	1,600	2						
<b>TOTAL</b>	1,909,450	2,478	5,350	0		538		1,324	

Public Road Reconstruction (Grading)

**NAFK-9503**

Construct E-W between S24 & S25 - 1.5 mile	41,067	1,000	84.4	
Remove E-W between S25 & S36 - 1 mile	27,378	1,000	56.2	
Remove E-W between S26 & S35 - 1 mile	27,378	1,000	56.2	
Construct N-S between S25 & 30 - 1 mile	27,378	1,000	56.2	
Construct N-S between S24 & 19 - 1 mile	27,378	1,000	56.2	
Gravel	13,689	1,000	28.1	18480

**NAFK-8705**

N-S between S23/26 & S22/23 - 1 1/2 miles	41,067	1,000	84.4	
W-E between S23 & 26 - 1 1/4 mile	34,222	1,000	70.3	
W-E between S19/20 & S30/29 - 1 1/4 miles	34,222	1,000	70.3	
N-S between S19/30 & S20/29 - 1 1/2 miles	41,067	1,000	84.4	
W-E between S32/33 & S5/4 - 1 1/4 mile	34,222	1,000	70.3	
N-S between S32/5 & S33/4 - 1 1/4 miles	34,222	1,000	70.3	

**NAFK-8405**

Construct E-W between S24 & S25 - 1.5 miles	41,000	1,000	84.2	
Remove E-W between S25 & S36 - 1 miles	27,000	1,000	55.5	
Remove E-W between S26 & S35 - 1 miles	27,000	1,000	55.5	
Construct N-S between S25 & S30 - 1 miles	27,000	1,000	55.5	
Construct N-S between S24 & S19 - 1 miles	14,000	1,000	28.8	
<b>TOTALS</b>	150,578	1,091	1,067	

<b>GRAND TOTAL SCRAPER</b>	3,352,848	2,031	9,447	
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## MINING DISTURBANCE

### Backfill Open Pit:

NAFK - 9503		C.Y.	Haul/Push (ft.)	Hours
Riv Pit - 14,000 ft.				
Spoil Side	Grading - D11N Dozer	4,382,400	400	8,152
Highwall Side	D11N Dozer	2,572,600	250	3,110
TOTAL		6,955,000		

NAFK - 8705		C.Y.	Haul/Push (ft.)	Hours
West Mine Area - 0 ft.				
Spoil Side - (Includes Work done in 2003)				
	Grading - D11N Dozer	0	250	0
	657E Scraper	0	700	0
Highwall Side	D11N Dozer	0	200	0
Spoil Pile Sections 27/26	657E Scraper	0	1,200	0
TOTAL		0		

Center Mine Area (N/S) - 4,000'		C.Y.	Haul/Push (ft.)	Hours
Spoil Side	Grading - D11N Dozer	371,911	100	198
	D11N Dozer	1,123,200	250	1,358
	657E Scraper	1,183,111	700	2,091
Highwall Side	D11N Dozer	1,168,000	300	1,669
Endwall 55' x 200' x 200'	657E Scraper	72,444	1,500	184
TOTAL		3,918,667		

Center Mine Area (E/W) - 7,800'		C.Y.	Haul/Push (ft.)	Hours
Spoil Side	Grading - D11N Dozer	4,137,400	150	3,144
	D11N Dozer	1,416,000	200	1,396
Highwall Side	D11N Dozer	1,825,000	250	2,206
TOTAL		7,378,400		

<b>Contingency Mine Area - 1,300'</b>		C.Y.	Haul/Push (ft.)	Hours
Spoil Side				
	Grading - D11N Dozer	<b>244,000</b>	<b>100</b>	130
	D11N Dozer	<b>179,000</b>	<b>200</b>	176
Highwall Side				
	D11N Dozer	<b>164,000</b>	<b>250</b>	198
<b>TOTAL</b>		587,000		

<b>NAFK - 8405</b>				
<b>East Mine Area Pit - 11,200 '</b>		C.Y.	Haul/Push (ft.)	Hours
Spoil Side				
	Grading - D11N Dozer	<b>2,560,908</b>	<b>250</b>	3,096
	657E Scraper	<b>6,481,668</b>	<b>680</b>	11,332
Highwall Side				
	D11N Dozer	<b>139,525</b>	<b>75</b>	58
<b>TOTAL</b>		9,182,101		

Summary	657E SCRAPER	D11N DOZER
Spoil Peak Grading		14,719
Pit Grading Spoil	13,607	2,930
Pit Grading Highwall		7,243
<b>Total</b>	13,607	24,892

BONDING CALCULATIONS -- Consolidated Bond (8405, 8705, & 9503)  
December 15, 2005  
Consolidated Bond (8405, 8705, & 9503)

SPGM RESPREAD HOURS SUMMARY  
Mining Disturbance Area

	Machine type: 657E				Equation: 1 (1=PSC,0=Falkirk)											
Land owner, legal description	Topsoil area (acres)	Subsoil area (acres)	Soil Depth (in.)	Volume (cu yds)	Stockpile Location	Haul Dist.	Production (cu yds/hr)	Efficiency Factor	Scraper Hours	Loader Production	Loader Hours	Truck Prod/trk	Truck Hours	Number of Trucks		
NAFK - 9503 (T145N R83W) Section 14	270.2		12	435,922.7	TS-359/293/361	11,500				966.5	451	188.4	2,313.8	5.13		
		160	12	258,133.3	SS-174/170	10,500				966.5	267	201.0	1,284.2	4.81		
		30	24	96,800.0	SS-202	10,800				966.5	100	197.2	490.9	4.90		
		80.2	36	388,168.0	SS-178/182	11,000				966.5	402	194.4	1,996.7	4.97		
Section 15	118		12	190,373.3	TS-297	13,000				966.5	197	173.1	1,099.8	5.58		
		57.7	12	93,089.3	SS-170	11,000				966.5	96	194.4	478.9	4.97		
		19.9	24	64,210.7	SS-170	11,000				966.5	66	194.4	330.3	4.97		
		40.4	36	195,536.0	SS-158	12,000				966.5	202	182.9	1,069.1	5.28		
Section 22	152.3	12	245,710.7	TS-297	11,500				966.5	254	188.4	1,304.2	5.13			
		36	737,132.0	SS-170	12,000				966.5	763	182.9	4,030.2	5.28			
Section 23	246.8	12	398,170.7	TS-375/377	10,200				966.5	412	204.8	1,944.2	4.72			
		36	1,194,512.0	SS-154/180/186/182/178/158	12,000				966.5	1,236	182.9	6,531.0	5.28			
Section 26	223.6		12	360,741.3	TS-317/319/309/313	10,000				966.5	373	207.6	1,737.7	4.66		
		95.3	12	153,750.7	SS-160	10,000				966.5	159	207.6	740.6	4.66		
		69.6	24	224,576.0	SS-160	10,000				966.5	232	207.6	1,081.8	4.66		
		58.7	36	284,108.0	SS-156/172	10,000				966.5	294	207.6	1,368.5	4.66		
Section 27	156		12	251,680.0	TS-317/319	11,000				966.5	260	194.4	1,294.7	4.97		
		83.4	12	134,552.0	SP Sect 26	4,500	303	0.84	529							
		43.4	24	140,037.3	SP Sect 26	4,500	303	0.84	551							
		29.3	36	141,812.0	SP Sect 26	4,500	303	0.84	558							
NAFK - 8405 (T146N R82W)																
Section 21	9.8		12	15,810.7	TS-231	11,400				966.5	16	189.5	83.4	5.10		
		9.8	24	31,621.3	SS-132	15,300				920.4	34	153.4	206.1	6.00		
Section 22	223.5		12	360,580.0	TS-187/187A/199	13,000				966.5	373	173.1	2,083.1	5.58		
		186.5	24	601,773.3	SS-114A/132	11,000				966.5	623	194.4	3,095.5	4.97		
		37	12	59,693.3	SS-114A/132	11,000				966.5	62	194.4	307.1	4.97		
Section 23	280.1		12	451,894.7	TS-199/231/255	10,500				966.5	468	201.0	2,248.2	4.81		
		199.3	12	321,537.3	SS-132/144	10,500				966.5	333	201.0	1,599.7	4.81		
		80.8	24	260,714.7	SS-132/144	10,500				966.5	270	201.0	1,297.1	4.81		
Section 24	52.7		12	85,022.7	TS-255	1,800	422	0.84	240							
		52.7	12	85,022.7	SS 144	600	712	0.84	142							
<hr/>																
TOTALS	1733 Acres			8,262,687 C.Y.			TS AND SS HOURS =		2,020		7,944		40,017			

Revision 13  
Completeness Review Response  
December, 2005

BONDING CALCULATIONS -- Consolidated Bond (8405, 8705, & 9503)  
December 15, 2005  
Consolidated Bond (8405, 8705, & 9503)

SPGM RESPREAD HOURS SUMMARY  
Mining Disturbance Area

Land owner, legal description	Machine type: 657E				Equation:		1 (1=PSC,0=Falkirk)									
	Topsoil area (acres)	Subsoil area (acres)	Soil Depth (in.)	Volume (cu yds)	Stockpile Location	Haul Dist.	Production (cu yds/hr)	Efficiency Factor	Scraper Hours	Loader Production	Loader Hours	Truck Prod/trk	Truck Hours	Number of Trucks		
NAFK - 8705																
Section 4	26.5		12	42,753.3	TS-19	8,000				966.5	44	239.9	178.2	4.03		
		26.5	12	42,753.3	SS-18	10,000				966.5	44	207.6	205.9	4.66		
Section 25	66.4		12	107,125.3	TS-171/261	8,000				966.5	111	239.9	446.5	4.03		
		15.8	12	25,490.7	SS-20/84/96/102	12,000				966.5	26	182.9	139.4	5.28		
Section 26	270.3		12	436,084.0	TS-173/171/209/211/227	8,000				966.5	451	239.9	1,817.8	4.03		
		260.8	12	420,757.3	SS-102/104	10,000				966.5	435	207.6	2,026.8	4.66		
Section 27	42.3		12	68,244.0	TS-227	1,000	579	0.84	140							
		0.2	12	322.7	SS-104	14,000				966.5	0	163.8	2.0	5.90		
Section 29	282.5		12	455,766.7	TS-121/259	4,000	328	0.84	1,653							
		181.5	12	292,820.0	SS-150	6,300				966.5	303	277.1	1,056.7	3.49		
		101	24	325,893.3	SS-150	6,300				966.5	337	277.1	1,176.1	3.49		
Section 32	150.8		12	243,290.7	TS-259	6,000				966.5	252	284.8	854.3	3.39		
		123.1	12	198,601.3	SS-12/18	9,000				966.5	205	222.4	893.0	4.35		
		27.7	24	89,378.7	SS-12/18	10,000				966.5	92	207.6	430.5	4.66		
Section 33	378.2		12	610,162.7	TS-223/259/419/	10,000				966.5	631	207.6	2,939.1	4.66		
		249.3	12	402,204.0	SS-140	6,300				966.5	416	277.1	1,451.5	3.49		
		128.9	24	415,917.3	SS-140	6,300				966.5	430	277.1	1,501.0	3.49		
Section 34	39.9		12	64,372.0	TS-223/259/419/	10,000				966.5	67	207.6	310.1	4.66		
		39.9	12	64,372.0	SS-140	6,300				966.5	67	277.1	232.3	3.49		

TOTALS	1,256.9 Acres	4,306,309 C.Y.	TS AND SS HOURS =	1,793	3,913	15,661
Overall Totals	2,989.9	12,568,996 C.Y.	Scraper TS and SS Hours =	3,813	Loader Hrs.= 11,857	Truck Hrs.= 55,678

Revision 13  
Completeness Review Response  
December, 2005

SPGM RESPREAD HOURS SUMMARY																		
Associated Disturbance Area																		
Machine type: 657E																		
Land owner, legal description	Stockpiles, Misc.		Ponds & Diversions		Roads & Trails		Soil depth (in.)	Volume (cu yds)	Stockpile Location	Haul Distance	Production (cu yds/hr)	Efficiency Factor	Scraper Hours	Loader Production	Loader Hours	Truck Prod/trk	Truck Hours	Number of Trucks
	Topsoil Area (acres)	Subsoil Area (acres)	Topsoil Area (acres)	Subsoil Area (acres)	Topsoil Area (acres)	Subsoil Area (acres)												
NAFK-9503																		
Section 7																		
Substation	0.90						12	1,452	TS-SECT 7	2500	440	0.84	4					
Borrow Pit	3.60						24	11,616	TS-279/HR	600	712	0.63	26					
Haulroads					39.5		12	63,727	TS-SECT 7	2500	440	0.84	172					
Access Trails					8.6		12	13,875	TS-SECT 7	1000	579	0.84	29					
Section 10																		
Ponds			8.7				12	14,036	TS-R-10-01	800	639	0.63	35					
Section 13																		
Ponds			42.3				12	68,244	SPGM-R14-01/TS-385/299/399	1000	579	0.84	140					
Diversions			2.4				12	3,872	TS-385/TS-299	1600	453	0.84	10					
Borrow Pit	25.4						24	81,957	TS-417	800	639	0.63	204					
Subsoil Piles	21.60						12	34,848	TS-293/TS-299	1200	530	0.84	78					
Haulroads					26.0		12	41,947	TS-293	3500	359	0.84	139					
Overburden pile	4.10						24	13,229	TS-385	1000	579	0.84	27					
Section 14																		
Ponds			10.8				12	17,424	TS-399	1000	579	0.84	36					
Subsoil Piles	2.60						12	4,195	TS-400	2000	395	0.84	13					
Diversions			4.0				12	6,453	TS-400	2000	395	0.84	19					
Haulroads					31.6		12	50,981	TS-389	5500								
Section 18																		
Diversions			0.5				12	807	TS-293	1000	579	0.84	2					
Borrow Pits	35.50						12	57,273	TS-291/323/289	1200	530	0.84	129					
Haulroads					42.8		12	69,051	TS-293	3000	395	0.84	208					
Section 19																		
Ponds			35.5	35.5			12	57,273	TS-295	1200	530	0.84	129					
Ponds							12	57,273	SS-178	1200	530	0.84	129					
Subsoil Piles	14.70						12	23,716	TS-295/361	800	639	0.63	59					
Haulroads					2.9		12	4,679	TS-293	1000	579	0.84	10					
Section 23																		
Subsoil Piles	7.10						12	11,455	TS-441/449	1000	579	0.84	24					
Haulroads					38.1		12	61,468	TS-449	900	608	0.63	161					
Section 24																		
Subsoil Piles	8.90						12	14,359	TS-297	600	712	0.63	32					
Haulroads					38.3		12	61,791	TS-359/387/441/449	1000	579	0.84	127					
Haulroads						30.0	12	48,400	SS-182	2200	372	0.84	155					
Access Trails					0.6		12	968	TS-361	500	755	0.63	2					
Section 25																		
Ponds			31.8				12	51,304	TS-375/377	2100	383	0.84	159					
Subsoil Piles	16.50						12	26,620	TS-303	2700	421	0.84	75					
Haulroads					17.5		12	28,233	TS-375/377	2500	440	0.84	76					
Haulroads						11.5	12	18,553	SS-180	1000	579	0.84	38					
Access Trails					2.9		12	4,679	TS-303	2200	372	0.84	15					
Overburden pile	4.10						48	26,459	TS-301	3000	395	0.84	80					
Section 26																		
Subsoil Piles	9.90						12	15,972	TS-303	2700	421	0.84	45					
Haulroads					13.8		12	22,264	TS-377/375	4000	328	0.84	81					
Section 30																		
Subsoil Piles	33.7						12	54,369	TS-301/307/311	1000	579	0.84	112					
Access Trails					2.0		12	3,227	TS-303	2300	361	0.84	11					
Section 36																		
Ponds			6.4	6.4			12	10,325	TS-391/377/375	1500	470	0.84	26					
Borrow Pits	6.6						24	21,296	TS-392	600	712	0.63	47					
Overburden pile	1.2						24	3,872	TS-391	250	888	0.63	7					
Access Trails					3.1		12	5,001	TS-393	1000	579	0.84	10					

Revision 13  
Completeness Review Response  
December, 2005

**SPGM RESPREAD HOURS SUMMARY**

Associated Disturbance Area

 Machine type: **657E**

Land owner, legal description	Stockpiles, Misc.		Ponds & Diversions		Roads & Trails		Soil depth (in.)	Volume (cu yds)	Stockpile Location	Haul Distance	Production (cu yds/hr)	Efficiency Factor	Scraper Hours	Loader Production	Loader Hours	Truck Prod/trk	Truck Hours	Number of Trucks
	Topsoil Area (acres)	Subsoil Area (acres)	Topsoil Area (acres)	Subsoil Area (acres)	Topsoil Area (acres)	Subsoil Area (acres)												
<b>NAFK-8705</b>																		
<b>Section 3, T145 N, R82W</b>																		
Gravel Pit	18.4						12	29,685	TS-47/51	700	674	0.63	70					
Dragline DH Route					2.5		12	4,033	TS-451	600	712	0.63	9					
Haul Road					11.0		12	17,747	TS-45	1600	453	0.84	47					
Subsoil Piles	3.5						12	5,647	TS-47/51	800	639	0.63	14					
<b>Section 4, T145 N, R82W</b>																		
Diversions			0.6				12	968	TS-419	1300	508	0.84	2					
Ponds			16.6				12	26,781	TS-9/197/263	2500	440	0.84	72					
Dragline DH Route					7.9		12	12,745	TS-191	800	639	0.63	32					
Subsoil Piles	5.9						12	9,519	TS-197	500	755	0.63	20					
Haul Road					42.5		12	68,567	TS-45/419	2100	383	0.84	213					
Access Trails					1.8		12	2,904	TS-137	600	712	0.63	6					
<b>Section 5, T145 N, R82W</b>																		
Ponds			12.9				12	20,812	TS-5/49/63	500	755	0.63	44					
Subsoil Piles	14.5						12	23,393	TS-39	500	755	0.63	49					
Haul Road					31.2		12	50,336	TS-5/39	500	755	0.63	106					
Haul Road						19.0	12	30,653	SS-12	1500	470	0.84	78					
<b>Section 6, T145 N, R82W</b>																		
Ponds			25.6				12	41,301	TS-21/23/25/67/85	800	639	0.63	103					
Subsoil Piles	34.4						12	55,499	TS-21/25/35/37	700	674	0.63	131					
Haul Road					42.7		12	68,889	TS-21/35/37/71	3700	346	0.84	237					
Haul Road						19.0	12	30,653	SS-18/20	2500	440	0.84	83					
Access Trails					11.0		12	17,747	TS-25/85/105	800	639	0.63	44					
Access Trails						1.0	12	1,613	TS-8	500	755	0.63	3					
<b>Section 22, T146 N, R83W</b>																		
Ponds			6.3				12	10,164	TS-235	800	639	0.63	25					
Diversions			1.7				12	2,743	TS-235	900	608	0.63	7					
Dragline Storage					24.2		12	39,043	TS-211	1600	453	0.84	103					
<b>Section 25, T146 N, R83W</b>																		
Haul Road					10.5		12	16,940	TS-247	2000	395	0.84	51					
Haul Road					10.5		12	16,940	SS-84	5200	273	0.84	74					
<b>Section 26, T146N, R83W</b>																		
Ponds			12.8				12	20,651	TS-177	1700	437	0.84	56					
Diversions			0.7				12	1,129	TS-177	1000	579	0.84	2					
Subsoil Piles	5.3						12	8,551	TS-177	900	608	0.63	22					
Haul Road					41.2		12	66,469	TS-177	2200	372	0.84	213					
Haul Road						10.0	12	16,133	SS-112	2000	395	0.84	49					
<b>Section 27, T146N, R83W</b>																		
Ponds			4.9				12	7,905	TS-209	600	712	0.63	18					
Diversions			0.2				12	323	TS-209	300	858	0.63	1					
<b>Section 28, T146N, R82W</b>																		
Ponds			35.7				12	57,596	TS-427/429/431/435	800	639	0.63	143					
Overburden	12.1						12	19,521	TS-435,437	300	858	0.63	36					
Overburden		12.1					12	19,521	SS-196,198	500	755	0.63	41					
Subsoil Piles	2.0						12	3,227	TS-437/435	300	858	0.63	6					
<b>Section 29, T146N, R82W</b>																		
Ponds			11.7				12	18,876	TS-109/121	1500	470	0.84	48					
Subsoil Piles	5.3						12	8,551	TS-121/151	700	674	0.63	20					
<b>Section 30, T146N, R82W</b>																		
Ponds			1.4				12	2,259	TS-151	600	712	0.63	5					
Subsoil Piles	2.2						12	3,549	TS-151	1000	579	0.84	7.3					
<b>Section 31, T146N, R82W</b>																		
Ponds			19.1				12	30,815	S1/2 Section 6	6000				966.5	32	284.8	108.2	3.39
Ponds				5.6			12	9,035	S1/2 Section 6	6000				966.5	9	284.8	31.7	3.39
Diversions			1.7				12	2,743	S1/2 Section 6	6000				966.5	3	284.8	9.6	3.39
Haul Roads					4.7		12	7,583	S1/2 Section 6	6000				966.5	8	284.8	26.6	3.39
<b>Section 32, T146N, R82W</b>																		
Ponds			27.6				12	44,528	S1/2 Section 6	7000				966.5	46	260.1	171.2	3.72
Diversions			4.0				12	6,453	TS-123	2000	395	0.84	19					
Subsoil Piles	18.7						12	30,169	S1/2 Section 6	7000				966.5	31	260.1	116.0	3.72
Haul Roads					7.4		12	11,939	TS-203	500	755	0.63	25					
Haul Roads						7.4	12	11,939	SS-134	500	755	0.63	25					

**Revision 13**  
**Completeness Review Response**  
**December, 2005**



SPGM RESPREAD HOURS SUMMARY																		
Associated Disturbance Area																		
Machine type: 657E																		
	Stockpiles, Misc.		Ponds & Diversions		Roads & Trails				Stockpile Location	Haul Distance	Production (cu yds/hr)	Efficiency Factor	Scraper Hours	Loader Production	Loader Hours	Truck Prod/trk	Truck Hours	Number of Trucks
	Topsoil Area (acres)	Subsoil Area (acres)	Topsoil Area (acres)	Subsoil Area (acres)	Topsoil Area (acres)	Subsoil Area (acres)	Soil depth (in.)	Volume (cu yds)										
Land owner, legal description	(acres)	(acres)	(acres)	(acres)	(acres)	(acres)	(in.)	(cu yds)										
Section 33, T146N, R82W			0.4				12	645	TS-123	2000	395	0.84	2					
Diversions					23.3		12	37,591	TS-419	1500	470	0.84	95					
Haul Roads																		
Section 35, T146N, R83W			13.5				12	21,780	TS-155	1000	579	0.84	45					
Ponds			1.5				12	2,420	TS-171	400	803	0.63	5					
Diversions	3.5						12	5,647	TS-155	500	755	0.63	12					
Subsoil Piles							12	7,744	TS-155	600	712	0.63	17					
Overburden	4.8						12	7,744	SS-96	600	712	0.63	17					
Overburden		4.8					12	7,744	TS-155	4000	328	0.84	20					
Haul Road					3.5		12	5,647										
Section 36, T146N, R83W			18.8				12	30,331	TS-153/157	1200	530	0.84	68					
Ponds			1.8				12	2,904	TS-153/157	300	858	0.63	5					
Diversions							12	12,100	TS-153	900	608	0.63	32					
Subsoil Piles	7.5						12	49,691	TS-153/157	2800	412	0.84	144					
Haul Road					30.8		12	11,777	SS-84	800	639	0.63	29					
Haul Road						7.3												

SPGM RESPREAD HOURS SUMMARY																		
Associated Disturbance Area																		
Machine type: 657E																		
Land owner, legal description	Stockpiles, Misc.		Ponds & Diversions		Roads & Trails		Soil depth (in.)	Volume (cu yds)	Stockpile Location	Haul Distance	Production (cu yds/hr)	Efficiency Factor	Scraper Hours	Loader Production	Loader Hours	Truck Prod/trk	Truck Hours	Number of Trucks
	Topsoil Area (acres)	Subsoil Area (acres)	Topsoil Area (acres)	Subsoil Area (acres)	Topsoil Area (acres)	Subsoil Area (acres)												
NAFK-8405																		
Section 22																		
Subsoil Piles	4.2						12	6,776	TS-267	800	639	0.63	17					
Haul Road					32.3		12	52,111	TS-249/269/409	2000	395	0.84	157					
Haul Road						32.3	12	52,111	SS-152	4500	303	0.84	205					
Section 23																		
Ponds			3.0				12	4,840	TS-257	1200	530	0.84	11					
Diversions			1.0				12	1,613	TS-257	900	608	0.63	4					
Diversions				0.5			12	807	SS-150	4000	328	0.84	3					
Subsoil Piles	6.2						12	10,003	TS-277	1000	579	0.84	21					
Haul Road					11.8		12	19,037	TS-201	700	674	0.63	45					
Haul Road						11.8	12	19,037	SS-150	4000	328	0.84	69					
Section 24																		
Diversions			1.1				12	1,775	TS-255	300	858	0.63	3					
Section 26																		
Ponds			6.4				12	10,325	TS-199	700	674	0.63	24					
Ponds				3.5			12	5,647	SS-132	600	712	0.63	13					
Diversions			1.3				12	2,097	TS-199	700	674	0.63	5					
Subsoil Piles	10.2						12	16,456	TS-199	500	755	0.63	35					
Haul Road					18.1		12	29,201	TS-329/199	700	674	0.63	69					
Haul Road						4.5	12	7,260	SS-132	15000				933.0	8	155.5	46.7	6.00
Section 27																		
Diversions			0.9				12	1,452	TS-231	400	803	0.63	3					
Haul Road					30.0		12	48,400	TS-231	1000	579	0.84	99					
Haul Road						25.0	12	40,333	SS-132	3000	395	0.84	122					
Section 34																		
Ponds			26.0				12	41,947	SE1/4 Section 34	1500	470	0.84	106					
Diversions			3.8				12	6,131	SE1/4 Section 34	1500	470	0.84	16					
Subsoil Piles	20.1						12	32,428	SE1/4 Section 34	600	712	0.63	72					
Haul Road					50.2		12	80,989	SE1/4 Section 34	1800	422	0.84	228					
Haul Road						28.0	12	45,173	SE1/4 Section 34	1800	422	0.84	127					
Access Roads					10.0		12	16,133	SE1/4 Section 34	1600	453	0.84	42					
Section 35																		
Ponds			1.3				12	2,097	TS-199	700	674	0.63	5					
Diversions			0.8				12	1,291	TS-199	500	755	0.63	3					
Subsoil Piles	7.4						12	11,939	TS-199	500	755	0.63	25					
Haul Road					2.2		12	3,549	TS-333	1000	579	0.84	7					
>>>>>TOTALS (ACRES):																		
TS Stockpiles 382.6 TS Ponds/Div. 407.5 TS Roads 729.0 TOTAL 2,970,308 CY																		
TOPSOIL PILES (for seeding calcs) 465.9																		
GRAND TOTAL 1.985 Acres 7.267 Hours																		
7.267 137 510																		
Scraper hrs Loader hrs Truck hrs																		

Revision 13  
Completeness Review Response  
December, 2005

# EARTHMOVING HOURS SUMMARY

ACTIVITY	Scraper 657E	Dozer D11	Loader 992G	Trucks 777D	Dozer D9R
SPGM respread (mining dist.)	3,813	0	11,857	55,678	11,857
SPGM respread (assoc. dist.)	7,267	0	137	510	137
Normal spoil regrading	0	14,719	0	0	0
Final pit grading (spoil side)	13,607	2,930	0	0	0
Final pit grading (highwall)	0	7,243	0	0	0
Pit ramp and road/belt grading	5,350	5,031	538	1,324	538
Pond and diversion grading	3,030	1,229	0	0	0
Regrading of Public Roads	1,067	0	0	0	0
TOTAL HOURS:	34,135 657E	31,152 D11	12,532 992G	57,512 777D	12,532 D9R

# EARTHMOVING COST SUMMARY

	Scraper-657E	Dozer-D11N	Loader-992G	Trucks-777D	Dozer-D9R	Grader-16H	Water-Wagon
Total equipment hours:	34,135	31,152	12,532	57,512	12,532	18,222	3,889
x Total est. hourly cost:	<b>\$224.98</b>	<b>\$234.93</b>	<b>\$222.35</b>	<b>\$178.51</b>	<b>\$145.75</b>	<b>\$107.35</b>	<b>\$107.35</b>
= Total equipment cost:	\$7,679,637	\$7,318,640	\$2,786,585	\$10,266,481	\$1,826,601	\$1,956,083	\$417,477
TOTAL EARTHMOVING COST:	\$32,251,504						

\*Obtain values from EQUIP.WKS (Hourly Equipment Cost Estimating Form)

Breakdown of costs	Scraper-657E	Dozer-D11N	Loader-992G	Trucks-777D	Dozer-D9R	Grader-16G	Water-Wagon	Total
Mining Disturbance	\$3,919,147	\$5,847,844	\$2,636,496	\$9,939,067	\$1,728,218	\$1,584,566	\$261,911	\$25,917,249
Associated Disturbance	\$3,760,491	\$1,470,795	\$150,088	\$327,414	\$98,383	\$371,518	\$155,566	\$6,334,255
Total	\$7,679,637	\$7,318,640	\$2,786,585	\$10,266,481	\$1,826,601	\$1,956,083	\$417,477	\$32,251,504

**Revision 13**  
**Completeness Review Response**  
**December, 2005**

## SEED COST SUMMARY

### Pre-Cropland Seed Mix

Species	lbs./acre	x \$/lb.	= \$/acre
Russian Wildrye	4.0	\$2.05	\$8.20
Intermediate Wheatgrass - Oahe	7.0	\$1.88	\$13.16
Pubescent Wheatgrass - Mandan 759	7.0	\$1.92	\$13.44
Alfalfa - Ladak	3.0	\$1.72	\$5.16
Total Per-Acre Cost =			\$39.96

### Fish and Wildlife Seed Mix

Species	lbs./acre	x \$/lb.	= \$/acre
Western Wheatgrass - Rosanna	4.0	\$4.50	\$18.00
Thickspike Wheatgrass - Critana	6.0	\$3.00	\$18.00
Slender Wheatgrass - Primar	2.0	\$1.65	\$3.30
Green Needlegrass - Lodorm	6.0	\$3.25	\$19.50
Total Per-Acre Cost =			\$58.80

### Rangeland Seed Mix

Species	lbs./acre	x \$/lb.	= \$/acre
<b>WARM SEASON GRASSES-----</b>			
Blue Grama	1.0	\$6.00	\$6.00
Sideoats Grama	4.0	\$4.75	\$19.00
Switchgrass	2.0	\$3.75	\$7.50
Big Bluestem	3.0	\$5.50	\$16.50
<b>COOL SEASON GRASSES-----</b>			
Western Wheatgrass	2.0	\$4.50	\$9.00
Green Needlegrass - Lodorm	3.0	\$3.25	\$9.75
Total Per-Acre Cost =			\$67.75

## TREE COST SUMMARY

Windbreak Location	Length ft.	Trees, shrubs \$/ft.	Fabric \$/ft.	= \$
Sections 26 (9503)	19,290	\$0.15	\$0.40	\$10,610
Sections 29 (8705)	17,100	\$0.15	\$0.40	\$9,405
Total Cost =				\$20,015

## REVEGETATION COST SUMMARY

<10% slope acreage:	4,975 acres
>10% slope acreage:	0 acres
Pasture/pre-crop acreage:	4540 acres
Fish and Wildlife Acreage:	260 acres
Rangeland acreage:	175 acres
Total acreage (worst-case):	4975 acres
Pasture/pre-crop seed cost:	\$39.96 per acre
Fish and Wildlife seed cost:	\$58.80 per acre
Rangeland seed cost:	\$67.75 per acre
Fertilizer cost:	\$0.1635 per lb.
Acres requiring rock picking:	4975 acres
Farm Work Rates:	
Deep chiseling:	\$5.99 per acre
Regular drilling (w/o fert.):	\$7.18 per acre
Dry fertilizer application:	\$3.87 per acre
Cost Summary:	
Seed bed preparation:	\$59,599.30
+ Rock picking:	\$248,745.00
+ Seeding: pasture/pre-crop:	\$214,010.89
+ Fish and Wildlife:	\$17,154.80
+ Rangeland:	\$13,741.00
+ Fertilizer:	\$68,056.63
+ Mulch: <10% slopes:	\$497,490.00
+ Mulch: >10% slopes:	\$0.00
+ Windbreaks	\$20,014.50
TOTAL REVEGETATION COST	\$1,138,812

## FINAL COST SUMMARY

<b>Bond Amount Subtotal:</b>		
Total Earthmoving Cost:		\$32,251,504
+ Demolition of Section 25 Heat Enclosure		\$26,000
+ Total Revegetation Costs		\$1,138,812
+ Culvert and Gravel for Public Road Reconstruction		<b>\$315,000</b>
+ 1% Add-on For Pumping & Misc. Costs		\$337,313
+ Cable Belt Structural Teardown		\$176,000
	<b>SUBTOTAL:</b>	<b>\$34,244,629</b>
<b>Engineering and Design Costs:</b>		
Base Map & Control	Permitted acreage =	26,674
	x \$10.00/acre =	\$266,736
Design Map & Quantities	Graded acreage =	4,975
	x \$25.00/acre =	\$124,373
As-Built Map for Permit Area:	Permitted acreage =	26,674
	x \$5.00/acre =	\$133,368
Final Quantities	Graded acreage =	4,975
	x \$10.00/acre =	\$49,749
Total Engineering and Design Cost =		<b>\$574,226</b>
<b>Supervision and Administration Costs:</b>		
10% of first \$200,000 of BOND SUBTOTAL (line 132):		\$20,000
+ 1% of amount of BOND SUBTOTAL over \$200,000:		\$340,446
Total Supervision and Administration Cost =		<b>\$360,446</b>
+ Total Engineering and Design Cost:		\$574,226
Total Engineering, Supervision, & Administration Cost:		<b>\$934,672</b>
<b>TOTAL AMOUNT (SUBTOTAL + ADMINISTRATIVE COST) =</b>		<b>\$35,179,301</b>