

## COST SUMMARY WORK

Task description: \_\_\_\_\_

Site: Bowie No. 2 Mine Permit Action: Minor Revision  
135 Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 342 State: Colorado Abbreviation: None  
Date: 4/2/2013 County: Delta Filename: C083-342  
User: SLB  
Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
338	Plug and Seal GVB B13C-1	BOREHOLE	1	10.00	\$5,544.98
339	Reseed road and pad for GVB B13C-1	REVEGE	1	0.20	\$1,767.07
340	Regrade GVB B13C-1 pad and road	DOZER	1	13.39	\$3,338.67
341	Re-topsoil GVB B13C-1	DOZER	1	5.68	\$1,417.10
333	Credit for plug/seal of B13 vent hole - not drilled	BOREHOLE	1	48.00	(\$23,729.33)
<b><u>SUBTOTALS:</u></b>				<b>77.27</b>	<b>(\$11,661.51)</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance:	2.02%	Total =	(\$235.56)
Performance bond:	1.05%	Total =	(\$122.45)
Job superintendent:	10.00 hrs	Total =	\$654.10
Profit:	10.00%	Total =	(\$1,166.15)
		TOTAL O & P =	(\$870.06)
		CONTRACT AMOUNT (direct + O & P) =	(\$12,531.57)

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	0.00	Total =	0.00
Engineering work and/or contract/bid preparation:	4.00%	Total =	(\$501.26)
Reclamation management and/or administration:	3.13%		(\$392.24)
CONTINGENCY:		Total =	\$0.00
		TOTAL INDIRECT COST =	(\$1,763.56)
		TOTAL BOND AMOUNT (direct + indirect) =	(\$13,425.07)

## BOREHOLE SEALING WORK

Task description: Plug and Seal GVB B13C-1

Site: Bowie No. 2 Mine

Permit Action: Minor Revision 135

Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 338  
Date: 4/2/2013  
User: SLB

State: Colorado  
County: Delta

Abbreviation: None  
Filename: C083-338

Agency or organization name: DRMS

### UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	10	1100	1.00	EA	\$96.54	\$96.54
- Fill Holes with Cement	Portland cement grout ( Bag, material cost only...94 lb. bag)	10	1100	264.00	bag	\$11.50	\$3,036.00
- Cut Casing at Surface	Exposed casing removal - 8 to 14 in. diameter steel pipe (LF)	10	NA	3.00	LF	\$8.81	\$26.43
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$2.81	\$2.81
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	10.00	EA	\$174.62	\$1,746.20
- Water Truck Time	Water Tanker, 2,500 Gal.	NA	NA	10.00	EA	\$63.70	\$637.00

Job Hours: 10

Total Cost: \$5,544.98

## REVEGETATION WORK

Task description: Reseed road and pad for GVB B13C-1

Site: Bowie No. 2 Mine

Permit Action: Minor Revision 135

Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 339

State: Colorado

Abbreviation: None

Date: 4/2/2013

County: Delta

Filename: C083-339

User: SLB

Agency or organization name: DRMS

### FERTILIZING

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

#### Application

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

### TILLING

Description	Cost /Acre
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

### SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$21.24
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Mountain Brome - Bromar	3.00	4.82	\$10.20
Sandberg Bluegrass - VNS	3.00	63.71	\$26.04
Coreopsis, Lance Leafed	1.00	25.58	\$30.65
Western Wheatgrass - Arriba	4.00	10.10	\$14.72
Daisy, Englemann's	1.00	4.94	\$104.61
Prairie Junegrass	2.00	106.31	\$68.80
Golden Banner	1.00	2.00	\$87.57
<b>Totals Seed Mix</b>	<b>21.00</b>	<b>236.80</b>	<b>\$384.35</b>

#### Application

Description	Cost /Acre
Drill seeding (DRMS Cost Data)	\$88.20
<b>Total Seed Application Cost/Acre</b>	<b>\$88.20</b>

## **MULCHING and MISCELLANEOUS**

### **Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$530.00</b>

### **Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
<b>Total Mulch Application Cost/Acre</b>	<b>\$152.57</b>

## **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$0.00</b>

## **JOB TIME AND COST**

No. of Acres:	1.27	Cost /Acre:	\$1,155.12
Estimated Failure Rate:	50%	Cost /Acre*:	\$472.55
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	<b>\$1,467.00</b>
Reseeding Job Cost:	<b>\$300.07</b>
Total Job Cost:	<b>\$1,767.07</b>
Job Hours:	<b>2.00</b>

## BULLDOZER WORK

Task description: Regrade GVB B13C-1 pad and road

Site: Bowie No. 2 Mine

Permit Action: Minor Revision 135

Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 340  
Date: 4/2/2013  
User: SLB

State: Colorado  
County: Delta

Abbreviation: None  
Filename: C083-340

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU  
Horsepower: 405  
Blade Type: Semi-Universal  
Attachment: NA  
Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$69.88	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA
Total unit Cost/Hour:	\$249.42	
Total Fleet Cost/Hour:	<b>\$249.42</b>	

### MATERIAL QUANTITIES

Initial Volume: 3,074  
Swell factor: 1.165  
Loose volume: **3,581 LCY**

Source of estimated volume: DRMS - assume 1.5' material over 1.27 acres  
Source of estimated swell factor: Cat Handbook

### HOURLY PRODUCTION

Average push distance: 100 feet  
Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 20 %  
Average site altitude: 7,725 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

<u>Job Condition Correction Factor</u>		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)

Push gradient:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2152

Adjusted unit production: 267.54 LCY/hr

Adjusted fleet production: **267.54** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.932/LCY

Total job time: **13.39** Hours

Total job cost: **\$3,338.67**

## BULLDOZER WORK

Task description: Re-topsoil GVB B13C-1

Site: Bowie No. 2 Mine

Permit Action: Minor Revision 135

Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 341  
Date: 4/2/2013  
User: SLB

State: Colorado  
County: Delta

Abbreviation: None  
Filename: C083-341

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU  
Horsepower: 405  
Blade Type: Semi-Universal  
Attachment: NA  
Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$69.88	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA
Total unit Cost/Hour:	\$249.42	
Total Fleet Cost/Hour:	<b>\$249.42</b>	

### MATERIAL QUANTITIES

Initial Volume: 1,537  
Swell factor: 1.125  
Loose volume: **1,729** LCY

Source of estimated volume: DRMS - 0.75' over 1.27 ac  
Source of estimated swell factor: Cat Handbook

### HOURLY PRODUCTION

Average push distance: 100 feet  
Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 20 %  
Average site altitude: 7,725 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

<u>Job Condition Correction Factor</u>		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)

Push gradient:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2448

Adjusted unit production: 304.34 LCY/hr

Adjusted fleet production: **304.34** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.820/LCY

Total job time: **5.68** Hours

Total job cost: **\$1,417.10**