

COST SUMMARY WORKTask description: Cost SummarySite: Bowie No. 2 MinePermit Action: Technical
Revision 79Permit/Job#: C1996083**PROJECT IDENTIFICATION**

Task #: 352 State: Colorado Abbreviation: None
 Date: 8/9/2013 County: Delta Filename: C083-352
 User: SLB

Agency or organization name: DRMS**TASK LIST (DIRECT COSTS)**

Task	Description	Form Used	Fleet Size	Task Hours	Cost
350	Haul Fill from Upper Mat'l Strge Area to B-Seam Portal Bench	SCRAPER1	1	69.96	\$38,958.71
351	Remove additional 270' Culvert C7	DEMOLISH	1	80.00	\$1,280.63
13	Credit Original Task 13	NA	1	0.00	(\$45,884.70)
<u>SUBTOTALS:</u>				149.96	(\$5,645.36)

INDIRECT COSTS**OVERHEAD AND PROFIT:**

Liability insurance: 2.02% Total = (\$114.04)
 Performance bond: 1.05% Total = (\$59.28)
 Job superintendent: 0.00 hrs Total = \$0.00
 Profit: 10.00% Total = (\$564.54)
 TOTAL O & P = (\$737.86)
 CONTRACT AMOUNT (direct + O & P) = (\$6,383.22)

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 = (\$255.33)
 Reclamation management and/or administration: 3.13% Total = (\$199.79)

CONTINGENCY: 0.00 Total = \$0.00TOTAL INDIRECT COST = (\$1,192.98)TOTAL BOND AMOUNT (direct + indirect) = (\$6,838.34)

SCRAPER TEAM WORKTask description: **Haul Fill from Upper Mat'l Strge Area to B-Seam Portal Bench**Site: **Bowie No. 2 Mine**Permit Action: **Technical Revision 79**Permit/Job#: **C1996083****PROJECT IDENTIFICATION**Task #: **350**State: **Colorado**Abbreviation: **None**Date: **8/9/2013**County: **Delta**Filename: **C083-350**User: **SLB**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

Equipment Description	
-Scraper:	Cat 627G w/push-pull
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	NA
Operating cost/hour:	\$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$556.86	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$556.86****MATERIAL QUANTITIES**Initial volume: **45,000**

CCY

Swell factor: **1.165**Loose volume: **52,425**

LCY

Source of estimated volume: **Operator Estimate**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	2,900 lbs/LCY	Struck Volume:	15.70	LCY
Material description:	Decomposed rock - 50% Rock, 50% Earth	Heaped Volume:	22.00	LCY
Rated Payload:	52,800 pounds	Average Volume:	18.85	LCY
Payload Capacity:	18.21 LCY	Adjusted Capacity:	18.21	LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 6750 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	3.00	3.00	2824	0.52

Haul Time: 0.52 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	3.00	3.00	2874	0.40

Return Time: 0.40 minutes

Total Scraper team cycle time: 2.42 minutes
 Adjusted for job conditions: 749.34 LCY/Hour
 Selected Number of Scrapers: 2 Scraper(s)
 Adjusted single scraper team (unit) hourly production: 749.34 LCY/Hour
 Adjusted multiple scraper team (fleet) hourly production: 749.34 LCY/Hour

Unadjusted unit production/hour: 902.82 LCY/Hour
 Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 69.96 HoursUnit cost: \$0.743 /LCY Total job cost: \$38,958.71

SCRAPER TEAM WORKTask description: Haul Fill from Upper Mat'l Strge Area to B-Seam Portal BenchSite: Bowie No. 2 MinePermit Action: Permit Renewal 3Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 013State: ColoradoAbbreviation: NoneDate: 1/16/2013County: DeltaFilename: C083-013User: SLBAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 627G w/push-pull
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

Scraper Work Team

Support Equipment

Maintenance Equipment

	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$65.78	NA	NA	NA	NA	NA
Operating cost/hour:	\$182.63	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.02	NA	NA	NA	NA	NA
Unit Subtotals:	\$278.43	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work: \$556.86		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$556.86****MATERIAL QUANTITIES**Initial volume: 53,000

CCY

Swell factor: 1.165Loose volume: **61,745**

LCY

Source of estimated volume: Operator EstimateSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>2,900 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Decomposed rock - 50% Rock, 50% Earth</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>18.21 LCY</u>	Adjusted Capacity:	<u>18.21</u>	LCY

Cycle Time:

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Job Condition Correction:

Site Altitude: 6750 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

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Haul Time: 0.52 minutesReturn Route:

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1	800.00	0.00	3.00	3.00	2874	0.40

Return Time: 0.40 minutes

Total Scraper team cycle time: 2.42 minutes
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Unadjusted unit production/hour: 902.82 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 82.40 HoursUnit cost: \$0.743 /LCYTotal job cost: \$45,884.70

DEMOLITION WORKTask description: **Remove additional 270' Culvert C7**Site: **Bowie No. 2 Mine**Permit Action: Technical Revision 79Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 351State: ColoradoAbbreviation: NoneDate: 8/9/2013County: DeltaFilename: C083-351User: SLBAgency or organization name: DRMS**UNIT COSTS****Location adjustment: 98.20 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Culvert C7, additional 270'	36" x 400'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	270.00	LF	\$4.83	\$1,304.10

Job Hours: 80.00**Subtotal
(unadjusted):** \$1,304.10**Total Cost
(adjusted for
location):** \$1,280.63