

# STATE OF COLORADO

## DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

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John W. Hickenlooper  
Governor

Mike King  
Executive Director

Loretta E. Piñeda  
Director

March 28, 2014

Mr. Shad Peabody  
Skanska USA Civil West Rocky Mountain District Inc.  
22419 CR G  
P.O. Box 1660  
Cortez, CO 81321

**Re: Craig Pit, Permit No. M-1976-027, Financial Warranty Increase, Revision No. SI-2**

Dear Mr. Peabody:

On March 28, 2014 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$158,692.74, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$53,882.74.

The Division ordered amendment of the current Financial Warranty, or submittal of a new Financial Warranty reflecting the increase, within 60 days from the date of this letter. If you wish to submit a different type of Financial Warranty, please contact me such that I may send you the applicable form.

If you have any questions, please contact me at (970) 259-5861.

Sincerely,

Kate A. Pickford  
Environmental Protection Specialist

## COST SUMMARY WORK

Task description: 2014 Inspection

Site: Craig Pit

Permit Action: 2014 Inspection

Permit/Job#: M1976027

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 3/28/2014

County: La Plata

Filename: M027-000

User: KAP

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill North Highwall	SCRAPER1	1	48.85	\$35,732.59
002	East highwall reduction, cut and fill	DOZER	1	50.73	\$10,454.28
003	Backfill South Phase 1 Highwall	SCRAPER1	1	40.86	\$29,885.45
004	West highwall reduction, Phase 1, cut and fill	DOZER	1	1.48	\$304.02
005	Haul and Place West OVB Stockpile Along West Berm	SCRAPER1	1	1.01	\$735.93
006	Rip and Grade 15.4 acres prior to topsoil replacement	DOZER	1	37.54	\$7,920.03
007	Haul and Place West OVB Stockpile Along West Berm	SCRAPER1	1	10.37	\$7,584.34
008	Revegetation 9.8 acres of mild slope areas	REVEGE	1	10.00	\$12,592.02
009	Revegetation 5.2 acres of 2H:1V slopes	REVEGE	1	10.00	\$9,691.31
010	Mobilize	MOBILIZE	1	4.53	\$5,058.09
<b><u>SUBTOTALS:</u></b>				<b>215.37</b>	<b>\$119,958.06</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 0.00%  
Performance bond: 0.00%  
Job superintendent: 107.68 hrs  
Profit: 10.00%

Total = \$0.00

Total = \$0.00

Total = \$7,043.35

Total = \$11,995.81

TOTAL O & P = \$19,039.16

CONTRACT AMOUNT (direct + O & P) = \$138,997.22

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00  
Engineering work and/or contract/bid preparation: 8.00%  
Reclamation management and/or administration: 5.81%

Total = 500.00

Total = \$11,119.78

\$8,075.74

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$38,734.68

**TOTAL BOND AMOUNT (direct + indirect) = \$158,692.74**

**SCRAPER TEAM WORK**Task description: Backfill North HighwallSite: Craig PitPermit Action: 2014 InspectionPermit/Job#: M1976027**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 3/28/2014County: La PlataFilename: M027-001User: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 637G 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:	\$100.38	NA	NA	NA	NA	NA
Operating cost/hour:	\$235.35	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:	\$365.75	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$731.50	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$731.50****MATERIAL QUANTITIES**Initial volume: 48,889

CCY

Swell factor: 1.110Loose volume: 54,267

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 2,800 lbs/LCY  
 Material description: Clay - Natural bed  
 Rated Payload: 81,600 pounds  
 Payload Capacity: 29.14 LCY

Struck Volume: 24.00 LCY  
 Heaped Volume: 34.00 LCY  
 Average Volume: 29.00 LCY  
 Adjusted Capacity: 29.00 LCY

Cycle Time:Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6720 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: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	-10.00	8.00	-2.00	2972	0.26

Haul Time: 0.26 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	10.00	8.00	18.00	832	0.74

Return Time: 0.74 minutesTotal Scraper team cycle time: 2.60 minutesAdjusted for job conditions: 1,110.92 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,110.92 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,110.92 LCY/HourUnadjusted unit production/hour: 1,338.46 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: 48.85 HoursUnit cost: \$0.658 /LCY Total job cost: \$35,732.59

**BULLDOZER WORK**Task description: East highwall reduction, cut and fillSite: Craig PitPermit Action: 2014 InspectionPermit/Job#: M1976027**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 3/24/2014County: La PlataFilename: M027-002User: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$63.00	NA
Operating Cost/Hour:	\$104.03	100
Ripper op. Cost/Hour:	\$1.63	25
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$206.08Total Fleet Cost/Hour: \$206.08**MATERIAL QUANTITIES**Initial Volume: 35,778Swell factor: 1.090Loose volume: 38,998 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 80 feetUnadjusted hourly production: 984.2 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -25 %Average site altitude: 6,720 feetMaterial weight: 2,400 lbs/LCYWeight description: Clay and gravel - Dry**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7811

Adjusted unit production: 768.76 LCY/hr

Adjusted fleet production: 768.76 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
 Unit cost: \$0.268/LCY

Total job time: 50.73 Hours  
 Total job cost: \$10,454.28

**SCRAPER TEAM WORK**Task description: Backfill South Phase 1 HighwallSite: Craig PitPermit Action: 2014 InspectionPermit/Job#: M1976027**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 3/28/2014County: La PlataFilename: M027-003User: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 637G 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:	\$100.38	NA	NA	NA	NA	NA
Operating cost/hour:	\$235.35	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:	\$365.75	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$731.50	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$731.50****MATERIAL QUANTITIES**Initial volume: 40,889

CCY

Swell factor: 1.110Loose volume: 45,387

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 2,800 lbs/LCY  
 Material description: Clay - Natural bed  
 Rated Payload: 81,600 pounds  
 Payload Capacity: 29.14 LCY

Struck Volume: 24.00 LCY  
 Heaped Volume: 34.00 LCY  
 Average Volume: 29.00 LCY  
 Adjusted Capacity: 29.00 LCY

Cycle Time:Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6720 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: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	-10.00	8.00	-2.00	2972	0.26

Haul Time: 0.26 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	10.00	8.00	18.00	832	0.74

Return Time: 0.74 minutesTotal Scraper team cycle time: 2.60 minutesAdjusted for job conditions: 1,110.92 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,110.92 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,110.92 LCY/HourUnadjusted unit production/hour: 1,338.46 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 40.86 HoursUnit cost: \$0.658 /LCYTotal job cost: \$29,885.45



BULLDOZER WORKTask description: West highwall reduction, Phase 1, cut and fillSite: Craig PitPermit Action: 2014 InspectionPermit/Job#: M1976027PROJECT IDENTIFICATIONTask #: 004State: ColoradoAbbreviation: NoneDate: 3/24/2014County: La PlataFilename: M027-004User: KAPAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$63.00	NA
Operating Cost/Hour:	\$104.03	100
Ripper op. Cost/Hour:	\$1.63	25
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$206.08Total Fleet Cost/Hour: \$206.08MATERIAL QUANTITIESInitial Volume: 1,480Swell factor: 1.090Loose volume: 1,613 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -25 %Average site altitude: 6,720 feetMaterial weight: 2,400 lbs/LCYWeight description: Clay and gravel - DryJob Condition Correction Factor

		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7811

Adjusted unit production: 1,093.54 LCY/hr

Adjusted fleet production: 1093.54 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
 Unit cost: \$0.188/LCY

Total job time: 1.48 Hours  
 Total job cost: \$304.02

**SCRAPER TEAM WORK**Task description: Haul and Place West OVB Stockpile Along West BermSite: Craig PitPermit Action: 2014 InspectionPermit/Job#: M1976027**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 3/28/2014County: La PlataFilename: M027-005User: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 637G 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:	\$100.38	NA	NA	NA	NA	NA
Operating cost/hour:	\$235.35	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:	\$365.75	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$731.50	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$731.50****MATERIAL QUANTITIES**Initial volume: 1,296

CCY

Swell factor: 1.110Loose volume: 1,439

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 2,800 lbs/LCY  
 Material description: Clay - Natural bed  
 Rated Payload: 81,600 pounds  
 Payload Capacity: 29.14 LCY

Struck Volume: 24.00 LCY  
 Heaped Volume: 34.00 LCY  
 Average Volume: 29.00 LCY  
 Adjusted Capacity: 29.00 LCY

Cycle Time:Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6720 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: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	200.00	0.00	8.00	8.00	1131	0.23

Haul Time: 0.23 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	200.00	0.00	8.00	8.00	1931	0.19

Return Time: 0.19 minutesTotal Scraper team cycle time: 2.02 minutesAdjusted for job conditions: 1,429.90 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,429.90 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,429.90 LCY/HourUnadjusted unit production/hour: 1,722.77 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 1.01 HoursUnit cost: \$0.512 /LCYTotal job cost: \$735.93

BULLDOZER WORKTask description: Rip and Grade 15.4 acres prior to topsoil replacementSite: Craig PitPermit Action: 2014 InspectionPermit/Job#: M1976027PROJECT IDENTIFICATIONTask #: 006State: ColoradoAbbreviation: NoneDate: 3/24/2014County: La PlataFilename: M027-006User: KAPAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$63.00	NA
Operating Cost/Hour:	\$104.03	100
Ripper op. Cost/Hour:	\$6.53	100
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$210.98Total Fleet Cost/Hour: \$210.98MATERIAL QUANTITIESInitial Volume: 24,845Swell factor: 1.090Loose volume: 27,081 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 0 %Average site altitude: 6,720 feetMaterial weight: 2,400 lbs/LCYWeight description: Clay and gravel - DryJob Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5153

Adjusted unit production: 721.42 LCY/hr

Adjusted fleet production: 721.42 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
 Unit cost: \$0.292/LCY

Total job time: 37.54 Hours  
 Total job cost: \$7,920.03

SCRAPER TEAM WORKTask description: Haul and Place West OVB Stockpile Along West BermSite: Craig Pit Permit Action: 2014 Inspection Permit/Job#: M1976027PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None  
 Date: 3/28/2014 County: La Plata Filename: M027-007  
 User: KAP

Agency or organization name: DRMSHOURLY EQUIPMENTCOSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 637G 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:	\$100.38	NA	NA	NA	NA	NA
Operating cost/hour:	\$235.35	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:	\$365.75	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$731.50	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$731.50**MATERIAL QUANTITIES

Initial volume: 12,100 CCY Swell factor: 1.125  
 Loose volume: 13,613 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety  
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONScraper Bowl (volume) Basis:

Material weight: 2,550 lbs/LCY Struck Volume: 24.00 LCY  
 Material description: Earth - Dry packed Heaped Volume: 34.00 LCY  
 Rated Payload: 81,600 pounds Average Volume: 29.00 LCY  
 Payload Capacity: 32.00 LCY Adjusted Capacity: 29.00 LCY

Cycle Time:Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6720 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: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	350.00	-10.00	8.00	-2.00	2972	0.16

Haul Time: 0.16 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	350.00	10.00	8.00	18.00	832	0.44

Return Time: 0.44 minutesTotal Scraper team cycle time: 2.20 minutesAdjusted for job conditions: 1,312.91 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,312.91 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,312.91 LCY/HourUnadjusted unit production/hour: 1,581.82 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: 10.37 HoursUnit cost: \$0.557 /LCY Total job cost: \$7,584.34



REVEGETATION WORKTask description: Revegetation 9.8 acres of mild slope areasSite: Craig PitPermit Action: 2014 InspectionPermit/Job#: M1976027PROJECT IDENTIFICATIONTask #: 008State: ColoradoAbbreviation: NoneDate: 3/24/2014County: La PlataFilename: M027-008User: KAPAgency or organization name: DRMSFERTILIZINGMaterials

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.33	\$65.40
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$65.40</b>

Application

Description	Cost / Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$52.71
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$52.71</b>

TILLING

Description	Cost / Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$98.01
<b>Total Tilling Cost/Acre</b>	<b>\$98.01</b>

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost / Acre
Pubescent Wheatgrass - Luna	6.00	12.40	\$13.44
Streambank Wheatgrass - Sodar	7.00	22.82	\$29.47
Western Wheatgrass - Arriba	6.00	15.15	\$22.08
<b>Totals Seed Mix</b>	<b>19.00</b>	<b>50.37</b>	<b>\$64.99</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
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$1.23	\$1.23
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$531.23</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Weed spray, truck, non-aquatic area, nox. [DMG]	\$61.49
Total Mulch Application Cost/Acre	\$127.38

**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:	9.8	Cost /Acre:	\$1,027.92
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,027.92
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MU LCHING		

Initial Job Cost:	<b>\$10,073.62</b>
Reseeding Job Cost:	<b>\$2,518.40</b>
Total Job Cost:	<b>\$12,592.02</b>
Job Hours:	<b>10.00</b>

**REVEGETATION WORK**Task description: Revegetation 5.2 acres of 2H:1V slopesSite: Craig PitPermit Action: 2014 InspectionPermit/Job#: M1976027**PROJECT IDENTIFICATION**Task #: 009State: ColoradoAbbreviation: NoneDate: 3/24/2014County: La PlataFilename: M027-009User: KAPAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.33	\$65.40
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$65.40</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$52.71
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$52.71</b>

**TILLING**

Description	Cost /Acre
Chisel plowing {DMG}	\$88.58
<b>Total Tilling Cost/Acre</b>	<b>\$88.58</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Pubescent Wheatgrass - Luna	12.00	24.79	\$26.88
Streambank Wheatgrass - Sodar	14.00	45.64	\$58.94
Western Wheatgrass - Arriba	12.00	30.30	\$44.16
<b>Totals Seed Mix</b>	<b>38.00</b>	<b>100.73</b>	<b>\$129.98</b>

**Application**

Description	Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)	\$847.24
<b>Total Seed Application Cost/Acre</b>	<b>\$847.24</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hydromulch tackifier, <15 ac. {Materials Only}	1.00	ACRE	\$153.53	\$153.53
Hydromulch, 1 ton/ac. rate {Materials Only}	1.00	ACRE	\$153.53	\$153.53
<b>Total Mulch Materials Cost/Acre</b>				<b>\$307.06</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</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: 5.2 Cost /Acre: \$1,490.97  
 Estimated Failure Rate: 25% Cost /Acre\*: \$1,490.97  
 \*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU  
LCHING

Initial Job Cost: \$7,753.04  
 Reseeding Job Cost: \$1,938.26  
 Total Job Cost: \$9,691.31  
 Job Hours: 10.00

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: MobilizeSite: Craig Pit Permit Action: 2014 Inspection Permit/Job#: M1976027**PROJECT IDENTIFICATION**

Task #: 010 State: Colorado Abbreviation: None  
 Date: 3/24/2014 County: La Plata Filename: M027-010  
 User: KAP

Agency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**

Shift basis: 1 per day  
 Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

**NON ROADABLE EQUIPMENT:**

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D8T - 8SU	53.08	\$63.00	\$125.45	2	\$376.91	\$250.90	\$0.00
Cat 637G w/push-pull	59.59	\$100.38	\$125.45	2	\$451.67	\$250.90	\$0.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$0.00
Hydroseeder with Tractor	28.00	\$65.89	\$117.55	1	\$183.44	\$117.55	\$0.00

Subtotals: **\$1,140.28** **\$708.02** **\$0.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$15.34	1	\$15.34	\$15.34

Subtotals: **\$15.34** **\$15.34**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>DURANGO</u>	
Total one-way travel distance:	<u>6.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$5,054.00</u>
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\* two round trips with haul rig:

Total Roadable Mob/Demob Cost **	<u>\$4.09</u>
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\*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.13</u>	<u>0.13</u>
Return Time (Hours):	<u>0.13</u>	<u>0.13</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>2.27</u>	<u>0.27</u>

**JOB TIME AND COST**

Total job time:	<u>4.53</u>	Hours
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Total job cost:	<u>\$5,058.09</u>
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