

January 3, 2017

James Cooley
J and K Limestone Products, LLC
4469 N CR 108
Mosca, CO 81146



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

***RE: J and K Limestone Products- Villa Grove Pit, Permit No. M-2000-116, Reclamation Costs
Update and Notice of Surety Increase (SI-2)***

Dear Mr. Cooley:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed).

Division calculations estimate the cost to reclaim the above referenced site to be \$107,167.68. This is an increase of \$26,744.68 over the \$80,423 currently held by the Division. This estimate is based on conditions observed during the August 9, 2016 inspection as well as changes made under TR-1. It is noted that the last surety increase was issued in May of 2006. ***Therefore, pursuant to Section 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.*** The additional amount needs to be accepted prior to **Monday, March 06, 2017**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Please make arrangements with Barbara Coria at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Barbara Coria.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@state.co.us

Sincerely,

Amy Yeldell

Environmental Protection Specialist
Department of Natural Resources
Division of Reclamation, Mining and Safety
Phone: (970) 254-8511



Ec: Russ Means, Senior EPS, Grand Junction DRMS
Stephanie Mitchell, EPS, Grand Junction DRMS

Enc: Financial Warranty Cost Estimate

COST SUMMARY WORK

Task description: Post inspection and TR-1

Site: J and K Limestone Products-
Villa Grove Pit

Permit Action: 2017-01

Permit/Job#: M2000116

PROJECT IDENTIFICATION

Task #: ACY State: Colorado Abbreviation: None
Date: 1/3/2017 County: Saguache Filename: M116-ACY
User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Cut and Fill highwall	DOZER	1	9.77	\$2,048.00
01b	Grade down stockpiles	DOZER	1	64.38	\$13,497.00
02a	Rip compacted areas	RIPPER	1	3.42	\$734.00
02b	rough grade prior to topsoil replacement	DOZER	1	33.99	\$7,108.00
03a	Replace topsoil on disturbed areas	SCRAPER1	1	34.07	\$9,155.00
04a	Reveg disturbed areas of site	REVEGE	1	40.00	\$41,385.00
05a	Transport equipment to/from site	MOBILIZE	1	7.00	\$6,079.00
<u>SUBTOTALS:</u>				192.63	\$80,006

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$1,616.12
Performance bond:	1.05	Total =	\$840.06
Job superintendent:	96.32	Total =	\$7,173.54
Profit:	10.00	Total =	\$8,000.60
		TOTAL O & P =	\$17,630.32
		CONTRACT AMOUNT (direct + O & P) =	\$97,636.32

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	500.00	Total =	500.00
Engineering work and/or contract/bid preparation:	4.25	Total =	\$4,149.54
Reclamation management and/or administration:	5.00		\$4,881.82

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$27,161.68

TOTAL BOND AMOUNT (direct + indirect) = \$107,167.68

BULLDOZER WORKTask description: Cut and Fill highwallSite: J and K Limestone Products-
Villa Grove PitPermit Action: 2017-01Permit/Job#: M2000116**PROJECT IDENTIFICATION**Task #: 01A
Date: 1/3/2017
User: ACYState: Colorado
County: SaguacheAbbreviation: None
Filename: M116-01aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$82.01</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$79.23</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$8.40</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$1.12</u>	<u>20</u>
Operator Cost/Hour:	<u>\$38.89</u>	<u>NA</u>

Total unit Cost/Hour: \$209.65
Total Fleet Cost/Hour: \$209.65**MATERIAL QUANTITIES**Initial Volume: 3,356
Swell factor: 1.000
Loose volume: 3,356 LCYSource of estimated volume: Assume 400ft of 25'H highwallSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 65 feet
Unadjusted hourly production: 1,170.3 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 15 %
Average site altitude: 7,880 feetMaterial weight: 2,600 lbs/LCYWeight description: Clay and gravel - Wet**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.885	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2935

Adjusted unit production: 343.48 LCY/hr

Adjusted fleet production: **343.48** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.610/LCY

Total job time: **9.77** Hours

Total job cost: **\$2,048**

BULLDOZER WORKTask description: **Grade down stockpiles**Site: **J and K Limestone Products-
Villa Grove Pit**Permit Action: **2017-01**Permit/Job#: **M2000116****PROJECT IDENTIFICATION**Task #: **01B**
Date: **1/3/2017**
User: **ACY**State: **Colorado**
County: **Saguache**Abbreviation: **None**
Filename: **M116-01b**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**
Horsepower: **310**
Blade Type: **Semi-Universal**
Attachment: **3-shank ripper**
Shift Basis: **1 per day**
Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$82.01	NA
Operating Cost/Hour:	\$79.23	100
Ripper own. Cost/Hour:	\$8.40	NA
Ripper op. Cost/Hour:	\$1.12	20
Operator Cost/Hour:	\$38.89	NA

Total unit Cost/Hour: **\$209.65**
Total Fleet Cost/Hour: **\$209.65****MATERIAL QUANTITIES**Initial Volume: **24,200**
Swell factor: **1.000**
Loose volume: **24,200 LCY**Source of estimated volume: **Assume 1 ac of stockpiles approx 15' tall**
Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **65 feet**
Unadjusted hourly production: **1,170.3 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **15 %**
Average site altitude: **7,880 feet**Material weight: **2,850 lbs/LCY**Weight description: **Gravel - Dry (1/4" - 2" diam.)****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.807	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3212

Adjusted unit production: 375.90 LCY/hr

Adjusted fleet production: **375.9** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.558/LCY

Total job time: **64.38** Hours

Total job cost: **\$13,497**

BULLDOZER RIPPING WORK

Task description: Rip compacted areas

J and K Limestone Products-
Site: Villa Grove Pit

Permit Action:
2017-01

Permit/Job#: M2000116

PROJECT IDENTIFICATION

Task #: 02A
Date: 1/3/2017
User: ACY

State: Colorado
County: Saguache

Abbreviation: None
Filename: M116-02a

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Ripper Attachment: 3-Shank Ripper

Horsepower: 310
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$82.01	NA
Operating Cost/Hour:	\$79.23	100
Ripper Ownership Cost/Hour:	\$8.40	NA
Ripper Operating Cost/Hour:	\$5.62	100
Operator Cost/Hour:	\$38.89	NA
Total Unit Cost/Hour:	\$214.15	
Total Fleet Cost/Hour:	\$214.15	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 2.00 acres Rip Depth (ft): 2.00 Volume: 6,453 BCY or CCY

Source of estimated quantity: 1 ac of stockpiles and roads

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.56 mph
Average Ripping Width: 7.08 degrees
Average Ripping Length: 100.00 feet
Average Dozer Speed: 88.00 feet
Average Maneuver Time: 0.25 feet
Production per unit area: 0.703 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.703 Acres/hr
Site Altitude: 7,880 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.58 Acres/hr
Adjusted Hourly Fleet Production: **0.58** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **3.43** Hours

Unit cost: \$366.793 Per acre Total job cost: **\$734**

BULLDOZER WORKTask description: **Rough grade prior to topsoil replacement**Site: **J and K Limestone Products-
Villa Grove Pit**Permit Action: 2017-01Permit/Job#: M2000116**PROJECT IDENTIFICATION**Task #: 02B
Date: 1/3/2017
User: ACYState: Colorado
County: SaguacheAbbreviation: None
Filename: M116-02bAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$82.01</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$79.23</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$8.40</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.56</u>	<u>10</u>
Operator Cost/Hour:	<u>\$38.89</u>	<u>NA</u>

Total unit Cost/Hour: \$209.09
Total Fleet Cost/Hour: **\$209.09****MATERIAL QUANTITIES**Initial Volume: 20,973
Swell factor: 1.000
Loose volume: **20,973 LCY**Source of estimated volume: Assume 13 acres floor/processing area graded at 1 ac
ft/acllSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 0 %
Average site altitude: 7,880 feetMaterial weight: 2,600 lbs/LCYWeight description: Clay and gravel - Wet**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</u>	<u>(CAT HB)</u>

Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.885	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4407

Adjusted unit production: 616.98 LCY/hr

Adjusted fleet production: **616.98** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.339/LCY

Total job time: **33.99** Hours

Total job cost: **\$7,108**

SCRAPER TEAM WORKTask description: **Replace topsoil on disturbed areas**Site: **J and K Limestone Products-
Villa Grove Pit**Permit Action: 2017-01Permit/Job#: M2000116**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 1/3/2017County: SaguacheFilename: M116-03aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-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:	\$104.50	NA	NA	NA	NA	NA
Operating cost/hour:	\$129.95	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$34.24	NA	NA	NA	NA	NA
Unit Subtotals:	\$268.69	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work: \$268.69		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$268.69****MATERIAL QUANTITIES**Initial volume: 20,167

CCY

Swell factor: 1.000Loose volume: **20,167**

LCY

Source of estimated volume: Assume 15 acres covered with avg 10" topsoilSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 2,550 lbs/LCY
 Material description: Earth - Dry packed
 Rated Payload: 81,600 pounds
 Payload Capacity: 32.00 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: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 7855 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: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	550.00	-5.00	5.00	0.00	2937	0.43

Haul Time: 0.43 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	550.00	5.00	5.00	10.00	1183	0.51

Return Time: 0.51 minutesTotal Scraper team cycle time: 2.44 minutesAdjusted for job conditions: 591.89 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 591.89 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 591.89 LCY/HourUnadjusted unit production/hour: 713.11 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 34.07 HoursUnit cost: \$0.454 /LCYTotal job cost: \$9,155

REVEGETATION WORKTask description: Reveg disturbed areas of siteSite: J and K Limestone Products-
Villa Grove PitPermit Action: 2017-01Permit/Job#: M2000116**PROJECT IDENTIFICATION**Task #: 04A
Date: 1/3/2017
User: ACYState: Colorado
County: SaguacheAbbreviation: None
Filename: M116-04aAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	200.00	pound	\$0.37	\$74.00
Triple superphosphate, 0-46-0	100.00	pound	\$0.51	\$51.00
			Total Fertilizer Materials Cost/Acre	\$125.00

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$21.34
Total Fertilizer Application Cost/Acre	\$21.34

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.59
Total Tilling Cost/Acre	\$107.59

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.60	9.79	\$6.40
Alkali Sacaton	0.30	11.71	\$6.86
Crested Wheatgrass - Ephraim	0.60	2.75	\$1.34
Tall Wheatgrass - Jose	1.70	3.08	\$3.83
Thickspike Wheatgrass - Critana	0.60	2.12	\$3.11
Totals Seed Mix	3.80	29.46	\$21.53

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$1.25	\$1.25
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$246.00	\$369.00
Total Mulch Materials Cost/Acre				\$370.25

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Power mulcher (MEANS 32 91 13.16 0350)	\$97.14
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$225.88

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 30
 Estimated Failure Rate: 25%
 *Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU
 LCHING

Cost /Acre: \$1,103.59

Cost /Acre*: \$1,103.59

Initial Job Cost: **\$33,107.70**
 Reseeding Job Cost: **\$8,276.93**
 Total Job Cost: **\$41,385**
 Job Hours: **40.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Transport equipment to/from siteSite: J and K Limestone Products-
Villa Grove PitPermit Action: 2017-01Permit/Job#: M2000116**PROJECT IDENTIFICATION**

Task #: 05A State: Colorado Abbreviation: None
 Date: 1/3/2017 County: Saguache Filename: M116-05a
 User: ACY

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	\$90.41	\$125.45	1	\$215.86	\$125.45	\$250.00
Cat 631G	52.50	\$104.50	\$125.45	1	\$229.95	\$125.45	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$30.65	\$88.67	1	\$119.32	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$6.72	\$88.67	1	\$95.39	\$88.67	\$250.00

Subtotals: **\$660.52** **\$428.24** **\$1,000.00**

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.	\$14.43	1	\$14.43	\$14.43

Subtotals: **\$14.43** **\$14.43**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	ALAMOSA	
Total one-way travel distance:	50.00	miles
Average Travel Speed:	40.00	mph

Total Non-Roadable Mob/Demob Cost *	\$6,042.94
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$36.08
'** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.25	1.25
Return Time (Hours):	1.25	1.25
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.50	2.50

JOB TIME AND COST

Total job time:	7.00	Hours
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Total job cost:	\$6,079
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