



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

June 27, 2018

Katie Conrado
Meeker Sand & Gravel, Inc.
P.O. Box 1550
Meeker, CO 81641

**Re: Meeker Pit, Acreage and Surety Reduction Approval, Permit No. M-1976-038,
Revision No. AR-1 and SR-1**

Dear Ms. Conrado:

On June 27, 2018, the Colorado Division of Reclamation, Mining and Safety approved your request for release of a portion of the permit area from further reclamation responsibility.

The permit area was reduced to 61.69 acres, through the release of 17.11 acres in this permit action. Because the permit is not totally released, you are still liable for filing annual reports and fees.

Due to a reduction in reclamation liability the required reclamation bond has been reduced to \$113,352.46 from the currently held \$150,316.90. A rider to the existing bond is required to reduce the amount currently held by the Division. If you have any questions regarding placement of the revised bond amount please contact Barbara Coria at (303) 866-3567 extension 8148.

If you need additional information, please contact me at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 S. 3rd St., Suite 301, Grand Junction, Colorado 81501, telephone no. 970.241.2042.

Sincerely,

Travis Marshall
Environmental Protection Specialist

Enclosure(s): Updated Reclamation Cost Estimate

cc: Barbara Coria, DRMS



COST SUMMARY WORK

Task description: Final Reclamation Cost Estimate

Site: Meeker Pit

Permit Action: AR-1

Permit/Job#: M1976038

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 6/26/2018

County: Rio Blanco

Filename: M038-001

User: THM

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Re-grade Highwall to 3H:1V Slopes	DOZER	2	19.74	\$7,573.00
02a	Distribute topsoil over 50 acres maximum disturbance	SCRAPER1	2	11.66	\$32,163.00
03a	Revegetate a maximum disturbance of 50 acres	REVEGE	1	16.00	\$41,296.00
04a	Mobilization	MOBILIZE	1	2.53	\$10,107.00
<u>SUBTOTALS:</u>				49.93	\$91,139

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 24.97
Profit: 10.00

Total = \$1,841.01

Total = \$956.96

Total = \$1,823.69

Total = \$9,113.90

TOTAL O & P = \$13,735.56

CONTRACT AMOUNT (direct + O & P) = \$104,874.56

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00

Total = 500.00

Engineering work and/or contract/bid preparation: 0.00

Total = \$0.00

Reclamation management and/or administration: 5.00

\$5,243.73

CONTINGENCY: 3.00

Total = \$2,734.17

TOTAL INDIRECT COST = \$22,213.46

TOTAL BOND AMOUNT (direct + indirect) = \$113,352.46

BULLDOZER WORKTask description: Re-grade Highwall to 3H:1V SlopesSite: Meeker PitPermit Action: AR-1Permit/Job#: M1976038**PROJECT IDENTIFICATION**Task #: 01AState: ColoradoAbbreviation: NoneDate: 6/26/2018County: Rio BlancoFilename: 01aUser: THMAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA

Total unit Cost/Hour: \$191.83Total Fleet Cost/Hour: \$383.65**MATERIAL QUANTITIES**Initial Volume: 20,000Swell factor: 1.120Loose volume: 22,400 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: -20 %Average site altitude: 6,565 feetMaterial weight: 2,550 lbs/LCYWeight description: Gravel - Dry**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5765

Adjusted unit production: 567.39 LCY/hr

Adjusted fleet production: 1134.78 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.338/LCY

Total job time: 19.74 Hours

Total job cost: \$7,573

SCRAPER TEAM WORKTask description: Distribute topsoil over 50 acres maximum disturbanceSite: Meeker PitPermit Action: AR-1Permit/Job#: M1976038**PROJECT IDENTIFICATION**Task #: 02AState: ColoradoAbbreviation: NoneDate: 6/26/2018County: Rio BlancoFilename: 02aUser: THMAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 627G w/push-pull
-Dozer:	Cat D8T - 8SU
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 120M
-Water Truck:	Water Tanker, 7,000 Gal.

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	100	100
Ownership cost/hour:	\$99.75	\$83.81	\$83.81	\$83.81	\$32.40	\$38.58
Operating cost/hour:	\$118.23	\$66.17	\$66.17	\$66.17	\$28.16	\$61.11
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$31.26	\$41.85	\$41.85	\$41.85	\$28.90	\$0.00
Unit Subtotals:	\$249.24	\$191.83	\$191.83	\$191.83	\$89.46	\$99.69
Number of Units:	8	1	1	1	1	1
Group Subtotals:	Work:	\$2,185.75	Support:	\$383.66	Maint:	\$189.15

Total work team cost/hour: \$2,758.56**MATERIAL QUANTITIES**Initial volume: 30,403

CCY

Swell factor: 1.125Loose volume: 34,203

LCY

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

Material weight: 2,550 lbs/LCY
 Material description: Earth - Dry packed
 Rated Payload: 52,800 pounds
 Payload Capacity: 20.71 LCY

Struck Volume: 15.70 LCY
 Heaped Volume: 22.00 LCY
 Average Volume: 18.85 LCY
 Adjusted Capacity: 18.85 LCY

Cycle Time:Scraper Loading Time: 0.90 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6565 feet

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

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	1000.00	2.00	3.00	5.00	2218	0.62

Haul Time: 0.62 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-2.00	3.00	1.00	2913	0.44

Return Time: 0.44 minutesTotal Scraper team cycle time: 2.56 minutesAdjusted for job conditions: 733.38 LCY/HourSelected Number of Scrapers: 4 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,466.77 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 2,933.53 LCY/HourUnadjusted unit production/hour: 883.59 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 2 Team(s) Total job time: 11.66 HoursUnit cost: \$0.940 /LCY Total job cost: \$32,163

REVEGETATION WORKTask description: Revegetate a maximum disturbance of 50 acresSite: Meeker PitPermit Action: AR-1Permit/Job#: M1976038PROJECT IDENTIFICATIONTask #: 03AState: ColoradoAbbreviation: NoneDate: 6/26/2018County: Rio BlancoFilename: 03aUser: THMAgency or organization name: DRMSFERTILIZINGMaterials

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

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Total Tilling Cost/Acre	\$106.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Meadow Brome - Regar	1.30	1.19	\$6.60
Russian Wildrye - Bozoisky	2.00	8.03	\$12.66
Streambank Wheatgrass - Sodar	2.20	7.17	\$13.40
Thickspike Wheatgrass - Critana	2.20	7.78	\$12.63
Western Wheatgrass - Arriba	3.20	8.08	\$25.86
Totals Seed Mix	10.90	32.26	\$71.15

Application

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Description	Cost /Acre
	\$0.00
Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$261.00	\$391.50
Total Mulch Materials Cost/Acre				\$391.50

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Power mulcher (MEANS 32 91 13.16 0350)	\$99.32
Weed spray, truck, non-aquatic area, nox. [DMG]	\$71.50
Total Mulch Application Cost/Acre	\$236.84

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: 41 Cost /Acre: \$805.78
 Estimated Failure Rate: 25% Cost /Acre*: \$805.78
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING
 Initial Job Cost: \$33,036.98
 Reseeding Job Cost: \$8,259.25
 Total Job Cost: \$41,296
 Job Hours: 16.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization**Site: **Meeker Pit**Permit Action: **AR-1**Permit/Job#: **M1976038****PROJECT IDENTIFICATION**Task #: **04A**State: **Colorado**Abbreviation: **None**Date: **6/26/2018**County: **Rio Blanco**Filename: **04a**User: **THM**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	47.71	\$83.81	\$117.55	3	\$604.08	\$352.65	\$750.00
Cat 627G w/push-pull	43.48	\$99.75	\$117.55	4	\$869.20	\$470.20	\$1,000.00
CAT 120M	15.53	\$32.40	\$88.67	1	\$121.07	\$88.67	\$250.00
Water Tanker, 3,500 Gal.	6.25	\$11.45	\$88.67	1	\$100.12	\$88.67	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$12.22	\$88.67	1	\$100.89	\$88.67	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$1,891.06** **\$1,177.53** **\$2,750.00****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.	\$12.26	2	\$24.52	\$24.52

Subtotals: **\$24.52** **\$24.52**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>MEEKER</u>	
Total one-way travel distance:	<u>4.00</u>	miles
Average Travel Speed:	<u>30.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$10,100.41</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$6.54</u>
** 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>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.27</u>	<u>0.27</u>

JOB TIME AND COST

Total job time:	<u>2.53</u>	Hours
Total job cost:	<u>\$10,107</u>	