




COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Urie Gravel Pit	MINE/PROSPECTING ID#: M-2009-038	MINERAL: Gravel	COUNTY: Rio Blanco
INSPECTION TYPE: Monitoring	INSPECTOR(S): Travis H. Marshall	INSP. DATE: March 2, 2016	INSP. TIME: 10:00
OPERATOR: Urie Rock Company	OPERATOR REPRESENTATIVE: Stephen Urie	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$91,600.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: March 11, 2016

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Financial Warranty

PROBLEM/POSSIBLE VIOLATION: Problem: The financial warranty is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the proper financial warranty amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32.5-117(4)(b) of the Act.

CORRECTIVE ACTIONS: The operator shall submit adequate financial warranty, as determined by the Division. The Division will be sending a separate surety increase notice to the operator regarding the increase of the financial warranty. The operator will have 60 days from the date on the surety increase notice to post the additional financial warranty.

CORRECTIVE ACTION DUE DATE: 5/10/16

OBSERVATIONS

This inspection was conducted as part of the normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety (Division). The Urie Gravel Pit is located approximately 1 mile north east of Rangely, Colorado. The site is a 112c operation that is active. Stephen Urie was present during the inspection.

A sign was posted at the entrance of the mine site and boundary markers were observed around the entire perimeter of the mining operation. Both the sign and markers were compliant with the requirements of Rule 3.1.12.

The site was active during the inspection. Various pieces of excavation equipment were observed within the permit area along with dump trucks being loaded with construction materials. Crushing equipment and conveyors were observed on site, no active crushing was observed during the inspection. A portable scale was observed near the pit entrance.

Recent evidence of active mining was observed in the northwest portion of the permit area. The mining area was mined down to the shale and was exposed. The shale underlying the gravel deposit appeared to be Mancos shale. The Division requires that either a minimum of two feet of gravel or water be left overlying the Mancos shale to avoid oxidation. Oxidation of Mancos shale may allow for selenium loading of the water which can be harmful to wildlife. The operator was not advised of this potential issue during the application process due to the original applications stating that the shale formation underlying the gravel deposit was the green river formation. This is not seen as a problem at this time but now that the operator is aware of the potential issue of Mancos shale oxidation future inspections that observe exposed Mancos shale will cite the condition as a possible violation of Division policy.

No erosional features were observed within the permit area during the inspection. Adequate amounts of topsoil were observed along the northern most permit area that are estimated to be adequate to complete the required reclamation.

Due to the last bond calculation being completed as part of the application process in August of 2009 the site is considered under bonded at the time of this inspection. As part of the routine reclamation bonding program an updated bond calculation will be conducted and sent along with this inspection report. The revised required reclamation bond amount is \$156,902.74. Place of the revised required reclamation bond is to be submitted and approved no later than May 10, 2016.

Responses to this inspection report should be directed to Travis Marshall at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 South 3rd Street, Room 301, Grand Junction, Colorado 81501, phone no. (970) 241-2042.

PHOTOGRAPHS







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GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS-----	<u>Y</u>	(FN) FINANCIAL WARRANTY-----	<u>PB</u>	(RD) ROADS-----	<u>Y</u>
(HB) HYDROLOGIC BALANCE-----	<u>Y</u>	(BG) BACKFILL & GRADING-----	<u>Y</u>	(EX) EXPLOSIVES-----	<u>NA</u>
(PW) PROCESSING WASTE/TAILING----	<u>NA</u>	(SF) PROCESSING FACILITIES-----	<u>Y</u>	(TS) TOPSOIL-----	<u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE-	<u>Y</u>	(FW) FISH & WILDLIFE-----	<u>Y</u>	(RV) REVEGETATION----	<u>NA</u>
(SM) SIGNS AND MARKERS-----	<u>Y</u>	(SW) STORM WATER MGT PLAN---	<u>Y</u>	(CI) COMPLETE INSP----	<u>Y</u>
(ES) OVERBURDEN/DEV. WASTE-----	<u>NA</u>	(SC) EROSION/SEDIMENTATION---	<u>Y</u>	(RS) RECL PLAN/COMP--	<u>NA</u>
(AT) ACID OR TOXIC MATERIALS-----	<u>NA</u>	(OD) OFF-SITE DAMAGE-----	<u>Y</u>	(ST) STIPULATIONS-----	<u>NA</u>

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address

Stephen Urie
Urie Rock Company
2424 East Main Street
Rangely, CO 81646

Enclosure(s): 2016 Reclamation Cost Update

COST SUMMARY WORK

Task description: Reclamation Cost Update

Site: Urie Gravel Pit

Permit Action: SI-01

Permit/Job#: M2009038

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 3/11/2016

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	Rip and Rough Grade 15 acres	RIPPER	1	24.95	\$4,524.00
02a	Removal of Earth Sound Barrier and Placement in Pit Bottom	SCRAPER1	1	51.57	\$58,741.00
03a	Reduce Pit Wall Slopes from 2H:1V to 3H:1V	DOZER	2	17.36	\$5,968.00
04a	Removal of Earth Sound Barrier and Placement in Pit Bottom	SCRAPER1	1	17.08	\$19,454.00
05a	Revegetate 15 acres of disturbance	REVEGE	1	16.00	\$29,905.00
06a	Mobilization	MOBILIZE	1	2.32	\$6,156.00
<u>SUBTOTALS:</u>				129.28	\$124,748

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 64.64
Profit: 10.00

Total = \$2,519.91

Total = \$1,309.85

Total = \$4,814.39

Total = \$12,474.80

TOTAL O & P = \$21,118.95

CONTRACT AMOUNT (direct + O & P) = \$145,866.95

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 0.00

Total = \$0.00

Reclamation management and/or administration: 5.00

\$7,293.35

CONTINGENCY: 3.00

Total = \$3,742.44

TOTAL INDIRECT COST = \$32,154.74

TOTAL BOND AMOUNT (direct + indirect) = \$156,902.74

BULLDOZER RIPPING WORK

Task description: Rip and Rough Grade 15 acres

Site: Urie Gravel Pit

Permit Action: SI-01

Permit/Job#: M2009038

PROJECT IDENTIFICATION

Task #: 01A

State: Colorado

Abbreviation: None

Date: 3/11/2016

County: Rio Blanco

Filename: M038-01a

User: THM

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$59.25</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$78.45</u>	<u>100</u>
Ripper Operating Cost/Hour:	<u>\$4.68</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.89</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$181.27</u>	
Total Fleet Cost/Hour:	<u>\$181.27</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 15.00 acres

Rip Depth (ft): 1.50

Volume: 36,300 BCY or CCY

Source of estimated quantity: Reclamation Plan

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	<u>mph</u>
Average Ripping Width:	<u>6.50</u>	<u>degrees</u>
Average Ripping Length:	<u>250.00</u>	<u>feet</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet</u>
Average Maneuver Time:	<u>0.25</u>	<u>feet</u>
Production per unit area:	<u>0.724</u>	<u>acres/hour</u>

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.724 Acres/hr

Site Altitude: 5,230 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.60 Acres/hr

Adjusted Hourly Fleet Production: 0.60 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 24.96 Hours

Unit cost: \$301.590 Per acre Total job cost: \$4,524

SCRAPER TEAM WORKTask description: **Removal of Earth Sound Barrier and Placement in Pit Bottom**Site: **Urie Gravel Pit**Permit Action: **SI-01**Permit/Job#: **M2009038****PROJECT IDENTIFICATION**Task #: **02A**State: **Colorado**Abbreviation: **None**Date: **3/11/2016**County: **Rio Blanco**Filename: **M038-02a**User: **THM**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

Equipment Description	
-Scraper:	Cat 627G w/push-pull
-Dozer:	Cat D7R DS Series II LGP
Support Equipment -Load Area:	NA
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance -Motor Grader:	CAT 16M
-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	100	NA	100	100	NA
Ownership cost/hour:	\$87.31	\$54.56	NA	\$54.56	\$75.59	NA
Operating cost/hour:	\$177.73	\$78.45	NA	\$78.45	\$85.29	NA
Ripper op. cost/hour:	NA	\$0.00	NA	\$0.00	\$0.00	NA
Operator cost/hour:	\$34.24	\$38.89	NA	\$38.89	\$35.83	NA
Unit Subtotals:	\$299.29	\$171.90	NA	\$171.90	\$196.70	NA
Number of Units:	2	1	0	1	1	0
Group Subtotals:	Work:	\$770.48	Support:	\$171.90	Maint:	\$196.70

Total work team cost/hour: **\$1,139.08****MATERIAL QUANTITIES**Initial volume: **39,843**

CCY

Swell factor: **1.000**Loose volume: **39,843**

LCY

Source of estimated volume: **Division of Reclamation, Mining & Safety**Source 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: 5230 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: 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	500.00	10.00	5.00	15.00	734	0.70

Haul Time: 0.70 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-10.00	5.00	-5.00	2938	0.23

Return Time: 0.23 minutesTotal Scraper team cycle time: 2.43 minutesAdjusted for job conditions: 772.62 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 772.62 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 772.62 LCY/HourUnadjusted unit production/hour: 930.86 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 51.57 HoursUnit cost: \$1.474 /LCY Total job cost: \$58,741

BULLDOZER WORKTask description: Reduce Pit Wall Slopes from 2H:1V to 3H:1VSite: Urie Gravel PitPermit Action: SI-01Permit/Job#: M2009038**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 3/11/2016County: Rio BlancoFilename: M038-03aUser: THMAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$54.56</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$78.45</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.89</u>	<u>NA</u>

Total unit Cost/Hour: \$171.90Total Fleet Cost/Hour: \$343.79**MATERIAL QUANTITIES**Initial Volume: 13,650Swell factor: 1.115Loose volume: 15,220 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -15 %Average site altitude: 5,230 feetMaterial weight: 2,500 lbs/LCYWeight description: Clay - Dry**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.900</u>	<u>(CAT HB))</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>
Job efficiency:	<u>0.830</u>	<u>(1 SHIFT/DAY)</u>

Spoil pile:	0.800	(FND-RF)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.920	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5480

Adjusted unit production: 438.40 LCY/hr

Adjusted fleet production: 876.8 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.392/LCY

Total job time: 17.36 Hours

Total job cost: \$5,968

SCRAPER TEAM WORKTask description: **Removal of Earth Sound Barrier and Placement in Pit Bottom**Site: **Urie Gravel Pit**Permit Action: **SI-01**Permit/Job#: **M2009038****PROJECT IDENTIFICATION**Task #: **04A**State: **Colorado**Abbreviation: **None**Date: **3/11/2016**County: **Rio Blanco**Filename: **M038-04a**User: **THM**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

Equipment Description	
-Scraper:	Cat 627G w/push-pull
-Dozer:	Cat D7R DS Series II LGP
Support Equipment -Load Area:	NA
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance -Motor Grader:	CAT 16M
-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	100	NA	100	100	NA
Ownership cost/hour:	\$87.31	\$54.56	NA	\$54.56	\$75.59	NA
Operating cost/hour:	\$177.73	\$78.45	NA	\$78.45	\$85.29	NA
Ripper op. cost/hour:	NA	\$0.00	NA	\$0.00	\$0.00	NA
Operator cost/hour:	\$34.24	\$38.89	NA	\$38.89	\$35.83	NA
Unit Subtotals:	\$299.29	\$171.90	NA	\$171.90	\$196.70	NA
Number of Units:	2	1	0	1	1	0
Group Subtotals:	Work:	\$770.48	Support:	\$171.90	Maint:	\$196.70

Total work team cost/hour: **\$1,139.08****MATERIAL QUANTITIES**Initial volume: **12,100**

CCY

Swell factor: **1.000**Loose volume: **12,100**

LCY

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

Material weight: **1,600 lbs/LCY**
 Material description: **Top Soil**
 Rated Payload: **52,800 pounds**
 Payload Capacity: **33.00 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 Minutes
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 5230 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: 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	800.00	5.00	5.00	10.00	1068	0.78

Haul Time: 0.78 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	-5.00	5.00	0.00	2921	0.37

Return Time: 0.37 minutesTotal Scraper team cycle time: 2.65 minutesAdjusted for job conditions: 708.48 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 708.48 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 708.48 LCY/HourUnadjusted unit production/hour: 853.58 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 17.08 HoursUnit cost: \$1.608 /LCY Total job cost: \$19,454

REVEGETATION WORKTask description: Revegetate 15 acres of disturbanceSite: Urie Gravel PitPermit Action: SI-01Permit/Job#: M2009038**PROJECT IDENTIFICATION**Task #: 05AState: ColoradoAbbreviation: NoneDate: 3/11/2016County: Rio BlancoFilename: M038-05aUser: THMAgency or organization name: DRMS**FERTILIZING****Materials**

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)	\$107.59
Total Tilling Cost/Acre	\$107.59

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	6.00	19.42	\$42.54
Sand Dropseed	0.30	35.81	\$2.10
Bottlebrush Squirrealtail	4.50	19.83	\$112.10
Sandberg Bluegrass - VNS	1.50	31.85	\$13.05
Galleta	5.50	20.08	\$138.88
Western Wheatgrass - Rosanna	8.00	20.20	\$28.16
Totals Seed Mix	25.80	147.20	\$336.82

Application

Description	Cost /Acre
Drill seeding (MEANS 32 92 19.13 0020)	\$434.00
Total Seed Application Cost/Acre	\$434.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$246.00	\$492.00
Total Mulch Materials Cost/Acre				\$492.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Power mulcher (MEANS 32 91 13.16 0350)	\$97.14
Total Mulch Application Cost/Acre	\$163.16

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: 15 Cost /Acre: \$1,533.57
 Estimated Failure Rate: 30% Cost /Acre*: \$1,533.57
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING
 Initial Job Cost: \$23,003.55
 Reseeding Job Cost: \$6,901.07
 Total Job Cost: \$29,905
 Job Hours: 16.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: MobilizationSite: Urie Gravel PitPermit Action: SI-01Permit/Job#: M2009038**PROJECT IDENTIFICATION**Task #: 06AState: ColoradoAbbreviation: NoneDate: 3/11/2016County: Rio BlancoFilename: M038-06aUser: THMAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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 D7R DS Series II LGP	34.57	\$54.56	\$117.55	2	\$344.21	\$235.10	\$500.00
Cat 627G w/push-pull	43.48	\$87.31	\$117.55	2	\$409.73	\$235.10	\$500.00
CAT 16M	28.73	\$75.59	\$117.55	1	\$193.14	\$117.55	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$1,171.04** **\$765.09** **\$1,750.00****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.	\$13.42	2	\$26.84	\$26.84

Subtotals: **\$26.84** **\$26.84**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>RANGELY</u>	
Total one-way travel distance:	<u>2.00</u>	miles
Average Travel Speed:	<u>25.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$6,151.86</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$4.29</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.08</u>	<u>0.08</u>
Return Time (Hours):	<u>0.08</u>	<u>0.08</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.16</u>	<u>0.16</u>

JOB TIME AND COST

Total job time:	<u>2.32</u>	Hours
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Total job cost:	<u>\$6,156</u>
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