



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: Memphis	MINE/PROSPECTING ID#: M-1997-084	MINERAL: Aggregate	COUNTY: Ouray
INSPECTION TYPE: Monitoring	INSPECTOR(S): Wallace H. Erickson & G. Russ Means	INSP. DATE: August 29, 2012	INSP. TIME: 13:30
OPERATOR: Horizon Ranch, LLP	OPERATOR REPRESENTATIVE:	TYPE OF OPERATION: 110c - Construction Limited Impact	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$1,053.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: <i>Wallace H. Erickson</i>	SIGNATURE DATE: September 5, 2012

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.

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----- PB	(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>NA</u>	(TS) TOPSOIL----- <u>NA</u>
(MP) GENL MINE PLAN COMPLIANCE- PB	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(SB) COMPLETE INSP---- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>NA</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</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 TOPIC: Financial Warranty

PROBLEM/POSSIBLE VIOLATION: Problem: The Division has reviewed the current cost of reclamation totaling \$2,361.55. Therefore, the existing financial warranty, in the amount of \$1,053, 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: Pursuant to Rule 4.2.1(2), the operator shall submit adequate financial warranty, totaling not less than \$2,361.55, within 60 days, due November 5, 2012.

CORRECTIVE ACTION DUE DATE: November 5, 2012

INSPECTION TOPIC: Gen. Compliance With Mine Plan

PROBLEM/POSSIBLE VIOLATION: Problem: Rule 1.13.5 states, if an Operator temporarily ceases production of the mining operation for one hundred eighty (180) days or more, the Operator must file a Notice of Temporary Cessation in writing to the Office. Information submitted by the Operator in the annual reports indicates no mining or reclamation activities have occurred for several years.

CORRECTIVE ACTIONS: The Division recommends the Operator file for Temporary Cessation. The start date of the initial 5 year Temporary Cessation period is retroactive to the last date the pit was active. If that date is more than 5 years ago, the operator is required ask the Board for a 5 year extension to the Temporary Cessation period (per rule 1.13.5 (3) and 1.13.8 (b) or begin reclamation.

CORRECTIVE ACTION DUE DATE: November 5, 2012

OBSERVATIONS

This inspection occurred as part of the Division's routine monitoring of permitted operations. Prior to the inspection the Division contact Randy Gillum and scheduled the inspection. Mr. Gillum declined to participate. This report is accompanied by an updated reclamation cost estimation totaling \$2,361.55, and 4 photos.

As shown in the photos, evidence of recent mining and reclamation activities were not observed. The site appears to have been dormant for years, with the exception of a newly posted mine identification sign. Division records do not appear to contain the Operator's notice of Temporary Cessation, as required under Rule 1.13. As noted above, the Division has identified a problem with the absent notice of Temporary Cessation and has imposed a 60-day compliance deadline, due November 5, 2012, to resolve the problem.

The Division has evaluated the current cost of reclamation totaling \$2,361.55. Please find enclosed 7 pages of summary and work sheets utilized by the Division to estimate the current cost of reclamation. Therefore, the existing \$1,053 financial warranty appears insufficient to ensure reclamation. As noted above, the Division has identified a problem with the insufficient bond and, pursuant to Rule 4.2.1(2), has imposed a 60-day compliance deadline, due November 5, 2012, to resolve the problem.

Response to this inspection report should be addressed to Wally Erickson at the Division's office in Durango, 691 County Road 233, Suite A-2, Durango, CO 81301, phone (970) 247-5469.

Inspection Contact Address

Reef Gillum
Horizon Ranch, LLP
P.O. Box 190
Forney, TX 75126

Enclosure: reclamation cost estimation totaling \$2,361.55; and
4 photos.

ec w/enclosure: Russ Means, DRMS GJFO

COST SUMMARY WORK

Task description: Summary of tasks and associated costs

Site: Memphis

Permit Action: Routine bond update

Permit/Job#: M1997084

PROJECT IDENTIFICATION

Task #: 004

State: Colorado

Abbreviation: None

Date: 9/5/2012

County: Ouray

Filename: M084-004

User: WHE

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Highwall reduction	EXCAVATE	1	1.45	\$105.00
002	Revegetate 0.5 acre affected lands	REVEGE	1	0.00	\$1,076.63
003	Haul reclamation equipment to and from job site	MOBILIZE	1	2.20	\$730.11
<u>SUBTOTALS:</u>				3.65	\$ \$1,911.74

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$38.62

Performance bond: 1.05

Total = \$20.07

Job superintendent: 0.00

Total = \$0.00

Profit: 10.00

Total = \$191.17

TOTAL O & P = \$249.86

CONTRACT AMOUNT (direct + O & P) = \$2,161.60

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 4.25

Total = \$91.87

Reclamation management and/or administration: 5.00

\$108.08

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$449.81

TOTAL BOND AMOUNT (direct + indirect) = \$2,361.55

HYDRAULIC EXCAVATOR WORK

Task description: Highwall reduction

Site: Memphis Permit Action: Routine bond update Permit/Job#: M1997084

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 9/5/2012 County: Ouray Filename: M084-001
User: WHE

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 307D 7'-3" Stick Horsepower: 56
Attachment 1: ROPS Cab Weight (MT): 7.23
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$15.06</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$18.88</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.67</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$72.62</u>	
Total Fleet Cost/Hour:	<u>\$72.62</u>	

MATERIAL QUANTITIES

Initial volume: 47 CCY Swell factor: 1.000
Loose volume: 47 LCY

Source of estimated volume: See attached drawing, "Highwall Reduction"
Source of estimated swell factor: NA

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE
Secondary Job Condition within Basic Description: AVERAGE
Cycle Time Value: 0.242 minutes

Load Bucket Capacity

Rated Capacity: 0.20 LCY (heaped) Bucket Size Class: Small
Bucket Fill Factor: 0.900 Other - soil, boulders, roots (80 -100%) 0.900
Adjusted Capacity: 0.18 LCY

Job Condition Correction Factors

Site Altitude: 7600 feet

		Source
Altitude Adj:	<u>0.87</u>	<u>(CAT HB)</u>
Job Efficiency:	<u>0.83</u>	<u>(1 shift/day)</u>
Net Correction:	<u>0.72</u>	<u>multiplier</u>

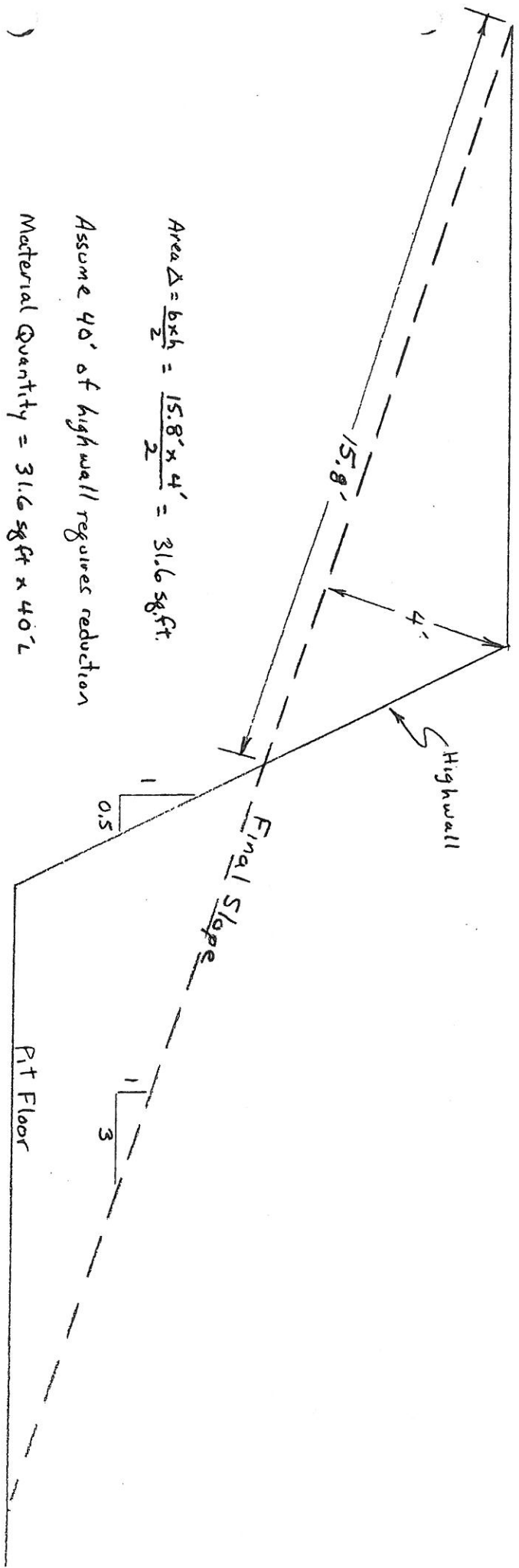
Unadjusted Hourly Unit Production: 44.63 LCY/Hour
Adjusted Hourly Unit Production: 32.23 LCY/Hour
Adjusted Hourly Fleet Production: 32.23 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 1.45 Hours
Unit cost: \$2.253 /LCY Total job cost: \$105.00

Highwall Reduction from 0.5H:1V to 3H:1V Balanced Cut & Fill

Memphis Site
M-1997-084
4/22/04 WHE
Scale = 1" = 30'



$$\text{Area } \Delta = \frac{b \times h}{2} = \frac{15.8' \times 4'}{2} = 31.6 \text{ sq. ft.}$$

Assume 40' of highwall requires reduction

$$\begin{aligned} \text{Material Quantity} &= 31.6 \text{ sq. ft.} \times 40' \\ &= 1264 \text{ cu. ft.} \\ &= 46.8 \text{ cu. yd.} \end{aligned}$$

REVEGETATION WORKTask description: Revegetate 0.5 acre affected landsSite: MemphisPermit Action: Routine bond updatePermit/Job#: M1997084**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 9/5/2012County: OurayFilename: M084-002User: WHEAgency 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
Hand raking (MEANS 32 91 13.23 0250)	\$1,197.90
Total Tilling Cost/Acre	\$1,197.90

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Mountain Brome - Bromar	16.00	25.71	\$53.28
Ryegrass, Perennial - Belramo	3.00	17.01	\$4.05
Slender Wheatgrass - Pryor	4.00	14.60	\$12.08
Sainfoin - Eski	10.00	4.36	\$24.60
Western Wheatgrass - Arriba	6.00	15.15	\$21.60
Totals Seed Mix	39.00	76.84	\$115.61

Application

Description	Cost /Acre
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Broadcast seeding [DMG]	\$255.76
Total Seed Application Cost/Acre	\$255.76

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$15.90	\$15.90
Total Mulch Materials Cost/Acre				\$15.90

Application

Description	Cost /Acre
Weed spray, hand, non-aquatic area, nox. [DMG]	\$175.77
Total Mulch Application Cost/Acre	\$175.77

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: 0.5 Cost /Acre: \$1,760.94
 Estimated Failure Rate: 25% Cost /Acre*: \$1,569.27
 *Selected Replanting Work Items: TILLING,SEEDING

Initial Job Cost: \$880.47
 Reseeding Job Cost: \$196.16
 Total Job Cost: \$1,076.63
 Job Hours: 0.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Haul reclamation equipment to and from job siteSite: MemphisPermit Action: Routine bond updatePermit/Job#: M1997084PROJECT IDENTIFICATIONTask #: 003State: ColoradoAbbreviation: NoneDate: 9/5/2012County: OurayFilename: M084-003User: WHEAgency or organization name: DRMSEQUIPMENT TRANSPORT RIG COSTShift basis: 1 per day
Cost 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 307D 7'-3" Stick	7.95	\$15.06	\$88.67	1	\$103.73	\$88.67	\$250.00

Subtotals:

\$103.73	\$88.67	\$250.00
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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.	\$34.08	1	\$34.08	\$34.08

Subtotals:

\$34.08	\$34.08
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EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: OURAY
 Total one-way travel distance: 1.50 miles
 Average Travel Speed: 30.00 mph

Total Non-Roadable Mob/Demob Cost * \$726.70
 ** two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$3.41
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.05</u>	<u>0.05</u>
Return Time (Hours):	<u>0.05</u>	<u>0.05</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.10</u>	<u>0.10</u>

JOB TIME AND COST

Total job time: 2.20 Hours

Total job cost: \$730.11

Memphis Site
M-1997-084
August 29, 2012



Memphis Site
M-1997-084
August 29, 2012

Evidence of removal of material from toe of alluvial fan. The excavation activity did not appear to have occurred in recent years.



Memphis Site
M-1997-084
August 29, 2012



Evidence of removal of material from toe of second alluvial fan. The excavation activity did not appear to have occurred in recent years.

Memphis Site
M-1997-084
August 29, 2012

