




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: Canon City East Pit	MINE/PROSPECTING ID#: M-1977-559	MINERAL: Sand and gravel	COUNTY: Fremont
INSPECTION TYPE: Surety-Related Inspection	INSPECTOR(S): Timothy A. Cazier	INSP. DATE: February 16, 2017	INSP. TIME: 11:35
OPERATOR: VALCO, Inc.	OPERATOR REPRESENTATIVE: Tom Brubaker, Steve Lindner	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Surety Related	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$45,500.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: March 3, 2017	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING----- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>N</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(CI) COMPLETE INSP---- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</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>Y</u>

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

OBSERVATIONS

This inspection was prompted by a request to transfer the permit through a succession of operator (SO-01) application and an acreage reduction/partial release (AR-01) request. The SO-01 application was received on January 18, 2017. The AR-01 request was received by the DRMS on January 23, 2017. The current permittee, Valco was represented during the inspection by Tom Brubaker. The company to which the permit is to be transferred, South Forty Recreation LLC was represented by Steve Lindner. Also present were Stan Peters, Polly Jessen, and members of the Lindner family.

The Cañon City East Pit site entrance is about 1 ½ miles south of U.S. Hwy 50 on MacKenzie Ave. on the east side of Cañon City. The site consists of two parcels: ~10 acres of exposed groundwater on the west side of MacKenzie Ave., and ~17 acres of exposed groundwater on the east side of MacKenzie Ave. The pit lakes and the area where the plant was located in the east parcel were not included in the release request.

Availability of Records: Annual fees and reports are current through February 2017. Regarding the AR-01 request the DRMS received only one comment regarding noxious weed control that was forwarded to both Valco and South Forty Recreation separately.

Backfilling and Grading: During the inspection, representatives from South Forty stated they had investigated pit run material in the vicinity of the concrete dump area (East Parcel, see **Photo 1**) and determined sufficient quantities were available to regrade the area and cover the concrete dump area prior to placing topsoil, but after the concrete drilling program is completed for drainage.

Excess Spoil and Dev. Waste: There are no overburden piles to remove. However the slash pile (mostly downed russian olive trees needs to be removed) near the concrete dump area does need to be removed.

Financial Warranty: The DRMS currently holds a \$45,500 bond from Valco. As part of the SO-01 review process, a revised bond was estimated. A draft of this updated bond was provided to the Lindners prior to the inspection. Based on the inspection, the DRMS believes no changes are necessary to the provided draft. The final bond estimate (for \$46,910.00) is attached to this inspection report.

Fish and Wildlife: No impact on wildlife was observed.

Hydrologic Balance: Groundwater is exposed in both parcels (East & West). Valco has a Substitute Water Supply Plan (SWSP) approved by the Division of Water Resources which expires May 31, 2017. Mr. Caleb Foy (DWR) confirmed this replacement water cannot be sold or leased to any other entity during the term of this SWSP without prior approval of the Division Engineer. The DWR will require either a replacement SWSP or a permanent augmentation plan at that time. Please be aware, the DRMS cannot release this site from final reclamation until a permanent augmentation plan is approved by the DWR. The AR-01 is not requesting a release of the exposed groundwater in either parcel.

Off-site Damage: The mined area appeared to be confined to within the permit boundary. All structures agreements for SO-01 were accounted for. Additional communication lines (not covered by the submitted UPPR agreement) along the railroad on the east side of the east parcel were noted (see **Photo 2**). South Forty Recreation submitted a revised structure agreement to the DRMS via email on February 23, 2017 to cover this discrepancy.

Reclamation Success: The areas requested for release in AR-01 appeared to be adequately reclaimed. The

DRMS will recommend approval of AR-01. Approval will be sent under separate cover.

Revegetation: Revegetation on the AR-01 release request areas appeared adequate. No noxious weeds were observed in these areas.

Sediment Control: No erosion problems were observed. However, straw wattles were observed on the east side of the west parcel (see **Photo 3**). Site representatives thought these wattles were left over from recent repair work done on the sewer line that runs between the west pit lake and MacKenzie Ave. Subsequent to this inspection, photographic evidence of the removal of these straw wattles was received by the DRMS.

Signs and Markers: The permit sign was properly posted (see **Photo 4**). It must remain posted until final release of reclamation liability. However, the name should be changed on the sign after SO-01 is approved by the DRMS.

Permit Stipulations: Valco notified the DRMS that final reclamation began on May 21, 2013. As such, final reclamation should be completed by May 20, 2018.

Topsoil: Site representatives indicated there was adequate topsoil for the remaining reclamation under the pit run material. Some discussion was had regarding importing topsoil if necessary. If this is the case, please notify the DRMS prior to doing so; but it is not expected that a certificate of inert fill will be required for topsoil importation.

Please contact Tim Cazier (303-866-3567, ext. 8169) if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. Concrete dump area, East Parcel (looking north).

PHOTOGRAPHS (cont.)



Photo 2. Communication lines along the railroad.



Photo 3. Straw wattles were observed on the east side of the west parcel.

PHOTOGRAPHS (cont.)



Photo 4. Permit sign (west side of MacKenzie Ave.).

Inspection Contact Addresses

Tom Brubaker
VALCO, Inc.
9296 Windhaven Dr.
Parker, Co 80134

Steve Lindner
South Forty Recreation, LLC
759 Apache Dr.
Cañon City, CO 81212

EC: DRMS file

COST SUMMARY WORK

Task description: Cost Summary

Site: Canon City East Pit

Permit Action: AR-01_SO-01

Permit/Job#: M1977559

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 2/14/2017

County: Fremont

Filename: M559-000

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Drill Concrete (10 ft o.c./30 min/hole)	DRILLING	1	131.00	\$23,312.00
002	Replace Topsoil	DOZER	1	22.91	\$3,210.00
003	Reveg 3.95 Acres	REVEGE	1	3.00	\$5,331.00
004	Mob/Demob	MOBILIZE	1	1.45	\$1,435.00
R03	Manure on 3.95 Acres	NA	1	3.00	\$1,259.00
<u>SUBTOTALS:</u>				161.36	\$34,547

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$697.85

Performance bond: 1.05

Total = \$362.74

Job superintendent: 75.36

Total = \$5,612.81

Profit: 10.00

Total = \$3,454.70

TOTAL O & P = \$10,128.10

CONTRACT AMOUNT (direct + O & P) = \$44,675.10

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

\$2,233.76

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$12,361.86

TOTAL BOND AMOUNT (direct + indirect) = \$46,908.86

ROUND TOTAL BOND AMOUNT (direct + indirect) TO: \$46,910.00

DRILLING EQUIPMENT

Task description: Drill Concrete

Site: Canon City East Pit Permit Action: AR-01_SO-01 Permit/Job#: M1977559

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 2/14/2017 County: Fremont Filename: M559-001
User: TC1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Make and Model:	<u>ATLAS COPCO ROC D3-01,3.0 in.</u>	Horsepower:	<u>185.00</u>
Attachment 1:	<u>Clear water pump station, 225 psi</u>	Shift Basis:	<u>1 per day</u>
Attachment 2:	<u>Mud service pump station, 225 psi</u>	Weight:	<u>11.17</u>
Labor Unit 1:	<u>Driller - Diamond or Core Drill</u>		<u>(US Tons)</u>
Labor Unit 2:	<u></u>		

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$62.07</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$57.42</u>	<u>90</u>
Operator Cost/Hour:	<u>\$40.67</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$160.16</u>	

Total Fleet Cost/Hour: \$160.16

JOB TIME AND COST

Fleet size: 1 Equipment Set(s) Total job time: 131.00 Hours*

Unit cost: \$160.16 /Hour Total job cost: \$23,312

* Assumes: One hole per 100 sq. ft.; 0.6 acres to be drilled and 30 minutes per hole (including setup time).

BULLDOZER WORKTask description: **Replace Topsoil**Site: **Canon City East Pit**Permit Action: **AR-01_SO-01**Permit/Job#: **M1977559****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **2/14/2017**County: **Fremont**Filename: **M559-002**User: **TC1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D6T LGP**Horsepower: **200**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$49.71	NA
Operating Cost/Hour:	\$51.50	100
Ripper own.		
Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.89	NA

Total unit Cost/Hour: **\$140.10**Total Fleet Cost/Hour: **\$140.10****MATERIAL QUANTITIES**Initial Volume: **3,186**Swell factor: **1.000**Loose volume: **3,186 LCY**Source of estimated volume: **6 inches (per TR-04) over 3.95 Ac**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **150 feet**Unadjusted hourly production: **212.5 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **0 %**Average site altitude: **5,270 feet**Material weight: **2,100 lbs/LCY**Weight description: **Earth - Loam****Job Condition Correction Factor****Source**

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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6544

Adjusted unit
production: 139.06 LCY/hr
Adjusted fleet
production: **139.06 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$1.007/LCY

Total job time: **22.91 Hours**
Total job cost: **\$3,210**

REVEGETATION WORKTask description: Reveg 3.95 AcresSite: Canon City East PitPermit Action: AR-01_SO-01Permit/Job#: M1977559**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 2/14/2017County: FremontFilename: M559-003User: TC1Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
See Task R03			\$	\$
			Total Fertilizer Materials Cost/Acre	\$0.00

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
Chisel plowing {DMG}	\$88.76
Total Tilling Cost/Acre	\$88.76

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Smooth Brome - Manchac	13.00	43.27	\$25.61
Yellow Sweet Clover - Madrid	7.00	41.78	\$17.92
Streambank Wheatgrass - Sodar	11.00	35.86	\$46.42
Western Wheatgrass - Barton	14.00	35.35	\$51.66
Totals Seed Mix	45.00	156.27	\$141.61

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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Total Mulch Application Cost/Acre	\$66.02

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: 3.95 Cost /Acre: \$1,079.73
 Estimated Failure Rate: 25% Cost /Acre*: \$1,079.73
 *Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,
MULCHING

Initial Job Cost: **\$4,264.93**
 Reseeding Job Cost: **\$1,066.23**
 Total Job Cost: **\$5,331**
 Job Hours: **3.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **Canon City East Pit**Permit Action: **AR-01_SO-01**Permit/Job#: **M1977559****PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 2/14/2017County: FremontFilename: M559-004User: TC1Agency 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
ATLAS COPCO ROC D3-01,3.0 in.	0.00	\$53.61	\$88.67	1	\$142.28	\$88.67	\$250.00
Cat D6T LGP	26.87	\$49.71	\$117.55	1	\$167.26	\$117.55	\$250.00

Subtotals: **\$309.54** **\$206.22** **\$500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Drill/Broadcast Seeder with Tractor	\$40.65	1	\$40.65	\$40.65

Subtotals: **\$40.65** **\$40.65**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: CAÑON CITY
 Total one-way travel distance: 4.50 miles
 Average Travel Speed: 40.00 mph

Total Non-Roadable Mob/Demob Cost * \$1,425.59
 * two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$9.15
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.11	0.11
Return Time (Hours):	0.11	0.11
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	0.73	0.23

JOB TIME AND COST

Total job time: 1.45 Hours

Total job cost: \$1,435

M-1977-559 Manure Cost

Task R03 Backup

Assume : 130 CY/ac {per TR-04}
 674.19 lb/CY per JLE CIRCES research
 \$ 3.00 \$/Ton (low) material cost (nearby prison farm)
 \$ 42.72 \$/50-mile-Ton delivery cost

Quantities

Volume: 130 CY/acre OR 43.8 Tons per acre
Cost: \$ 131.47 per acre ↓
for 3.95 acres => 173.1 Tons Total

Total cost: **\$ 519.29** Material cost

Delivery: \$ 7,394.76 per 50 miles

Assume: 5 miles
 \$ 739.48 delivery

Total Cost: \$ 1,258.77