




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: Hancock Gravel Pit	MINE/PROSPECTING ID#: M-1981-279	MINERAL: Sand and gravel	COUNTY: Otero
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger	INSP. DATE: January 19, 2017	INSP. TIME: 10:30
OPERATOR: Otero County	OPERATOR REPRESENTATIVE: Lex Nichols	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Surety Related; To calculate required bond for Succession of Operators (SO-01)	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: No bond held; Successor Operator to post bond for SO-01 approval	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: January 27, 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>NA</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>Y</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>Y</u>	(CI) COMPLETE INSP---- <u>Y</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>NA</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 of the Hancock Gravel Pit (Permit No. M-1981-279) was conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division) in response to a Succession of Operators application (Revision SO-01) that was filed on December 14, 2016. With approval of SO-01, the permit will be transferred from Otero County to All-Rite Paving & Redi-Mix, Inc. Because the operator is a unit of government, no reclamation bond is currently held for the site. However, the successor operator, All-Rite Paving & Redi-Mix, Inc. will be required to post a bond in order for SO-01 to be approved. Mr. Lex Nichols represented Otero County during the inspection. Mr. Herb Pearson represented All-Rite Paving & Redi-Mix, Inc. during the inspection. The site is located approximately 4 miles southwest of Rocky Ford, CO. Access to the site is from the east off of Co Rd 18. The affected land is owned by William G. Hancock and Karen K. Hancock.

This is a 112c operation permitted for 92 acres to mine sand and gravel for road construction and maintenance. The operation is extracting from a terrace deposit. The operation is approved for intermittent status, which allows mining activities to occur for less than 180 days per year. The approved mining plan includes three mining phases in which the operation advances generally counter-clockwise through the site, beginning in the southwestern portion of the permit area. The approved maximum mining depth is approximately 20 feet. The maximum allowed disturbed area at any time is 20 acres. The approved permit indicates the operation is to maintain a 50 foot horizontal setback from the overhead power line located south of the permit boundary. Salvaged topsoil is to be stored along the pit perimeter. Any additional growth medium needed for reclamation may be imported to the site. The approved reclamation plan calls for grading all disturbed slopes to 3H:1V or flatter, scarifying backfilled surfaces, replacing 4-6 inches of topsoil on disturbed land, and revegetating disturbed land with a native grass mixture recommended by the local Soil Conservation Service. All haul roads constructed inside the permit area will be reclaimed. A portion of the main access road (approximately 150 feet in length) that intersects Co Rd 18, is not inside the permit area and will not be reclaimed. The approved post-mining land use for the site is rangeland.

At the time of the inspection, it was clear and sunny with some snow cover on the ground. A permit sign was posted at the main site entrance off of Co Rd 18 (**Photo 1**). The successor operator should be advised that when replacing the permit sign, per Rule 3.1.12(1), the sign should include the name of the operator, a statement that a reclamation permit for the operation has been issued by the CO Mined Land Reclamation Board (which can be abbreviated as "reclamation permit issued by CO MLRB"), and the permit number. The permit boundary was delineated by metal stakes. The current active pit is located at the center of the permit area, and daylights mainly to the north (**Photos 2 and 3**). Pit highwalls have been graded to 2H:1V, or flatter in some areas, and appear to be stable (**Photos 4-6**). Pit highwalls are up to approximately 20 feet in height. Most of the mined material has been removed from the site. A few overburden stockpiles remain on the pit floor (**Photos 7 and 8**), which could be used to backfill highwalls for reclamation. Salvaged topsoil is stored along the edges of the pit, above the highwalls (**Photo 9**). The topsoil berms appeared to be stable with some vegetative cover. Much of the old pit that was mined prior to Division approval of Amendment No.1 in 1997 has been reclaimed for many years. The old pit is located northwest of the current active pit. The Division estimates current disturbance to be 34.3 acres.

It should be noted the Division investigated a small horseshoe-shaped pit approximately 3 acres in size located west of the active pit (**Photos 10-12**), which is partially inside of and partially outside of the approved permit area. The Division estimates approximately 1 acre of the pit is located within the permit area (including much of the mined wall), and approximately 2 acres are located outside of the permit area. According to historic images available in Google Earth, the small pit appears to have been present at least as early as 1998. However, because earlier historic images are not available, it cannot be determined whether the disturbance occurred prior to the site being permitted in 1981. The approved mining and reclamation plan maps (see enclosed maps) appear to

indicate that some of the disturbance in this area was pre-existing; however, the text on the maps is very small and difficult to read. According to Mr. Nichols, this small pit was created prior to permitting, possibly by the landowner for ranch use. The pit is approximately 5-8 feet deep, daylighting to the north. The pit appears to have self-reclaimed with slope gradients of 3H:1V or flatter along the mined wall, and a good establishment of native grasses, forbs, and some shrubs (e.g., yucca) across the area. Therefore, the Division is not including this old disturbance in the current disturbance amount used for calculating the required financial warranty.

The Division observed the southern edge of the pit wall is currently set back a minimum of 150 feet from the overhead power line located south of the permit boundary. This is in compliance with the 50 foot setback required by the original structure agreement. However, it should be noted the new structure agreement with Black Hills Energy that was provided with the SO-01 application calls for a 100 foot longitudinal mining setback from the power line poles. This should be considered as the current pit is opened to the south.

After conducting the inspection, the Division calculated the required financial warranty to complete reclamation of current disturbance at the site in accordance with the approved reclamation plan. This includes backfilling pit highwalls from 2H:1V to 3H:1V, ripping approximately 3 acres of a stockpiling area, replacing 6 inches of topsoil on 34.3 acres of disturbed land, revegetating 34.3 acres for rangeland use, and mobilizing/demobilizing equipment (see enclosed bond estimate). The Division has determined the required financial warranty for this site to be in the amount of \$107,121.00. For the permit transfer to be finalized, the successor operator, All-Rite Paving & Redi-Mix, Inc. must submit the required financial warranty within 60 days of the signature date of this inspection report, giving a deadline of March 28, 2017.

The Division recommends that after the permit transfer is finalized, the successor operator submit a Technical Revision to increase the maximum allowed disturbed acreage from 20 acres to at least the currently disturbed 34.3 acres. The Division would recommend increasing this amount enough to cover any additional disturbance that might occur within the next year. For example, with a current disturbance of 34.3 acres, the amount might be increased to 35-40 acres to be on the safe side.

PHOTOGRAPHS



Photo 1. View of permit sign posted at main site entrance off of Co Rd 18.



Photo 2. View looking southeast across active pit that daylights mainly to the north.



Photo 3. View looking northeast across active pit that daylights mainly to the north. Overburden stockpile in foreground.



Photo 4. View looking across eastern pit highwall (near main entrance), showing slope gradients of 2H:1V or flatter.



Photo 5. View looking across eastern and northern pit highwall (near main entrance), showing slope gradients of 2H:1V or flatter.



Photo 6. View looking across southern pit highwall, showing slope gradients of 2H:1V or flatter.



Photo 7. View of overburden stockpiles stored at western edge of active pit.



Photo 8. Another view of overburden stockpiles stored at western edge of active pit.



Photo 9. View of salvaged topsoil stored along eastern edge of pit, which appears stable with some vegetative cover.



Photo 10. View looking southwest, showing western portion of old horseshoe-shaped pit located west of active pit. Note area has self-reclaimed with slopes of 3H:1V or flatter and established vegetation.



Photo 11. View looking south, showing southern portion of old horseshoe-shaped pit located west of active pit. Note area has self-reclaimed with slopes of 3H:1V or flatter and established vegetation.



Photo 12. View looking southeast, showing southeastern portion of old horseshoe-shaped pit located west of active pit. Note area has self-reclaimed with slopes of 3H:1V or flatter and established vegetation.

Inspection Contact Address

Lex Nichols
Otero County
13 West 3rd St., Room 208
La Junta, CO 81050

Herb Pearson
All-Rite Paving & Redi-Mix Inc.
30783 East US Hwy 50
La Junta, CO 81050

Enclosure(s): Google Earth image of site
Approved mining plan map
Approved reclamation plan map
Division's bond estimate for SO-01

CC: John P. Ary
All-Rite Paving & Redi-Mix Inc.
P.O. Box 165
Canon City, CO 81215

EC: Angela Bellantoni (angela@envalternatives.com)
Wally Erickson, DRMS (wally.erickson@state.co.us)
Barbara Coria, DRMS (barbara.coria@state.co.us)

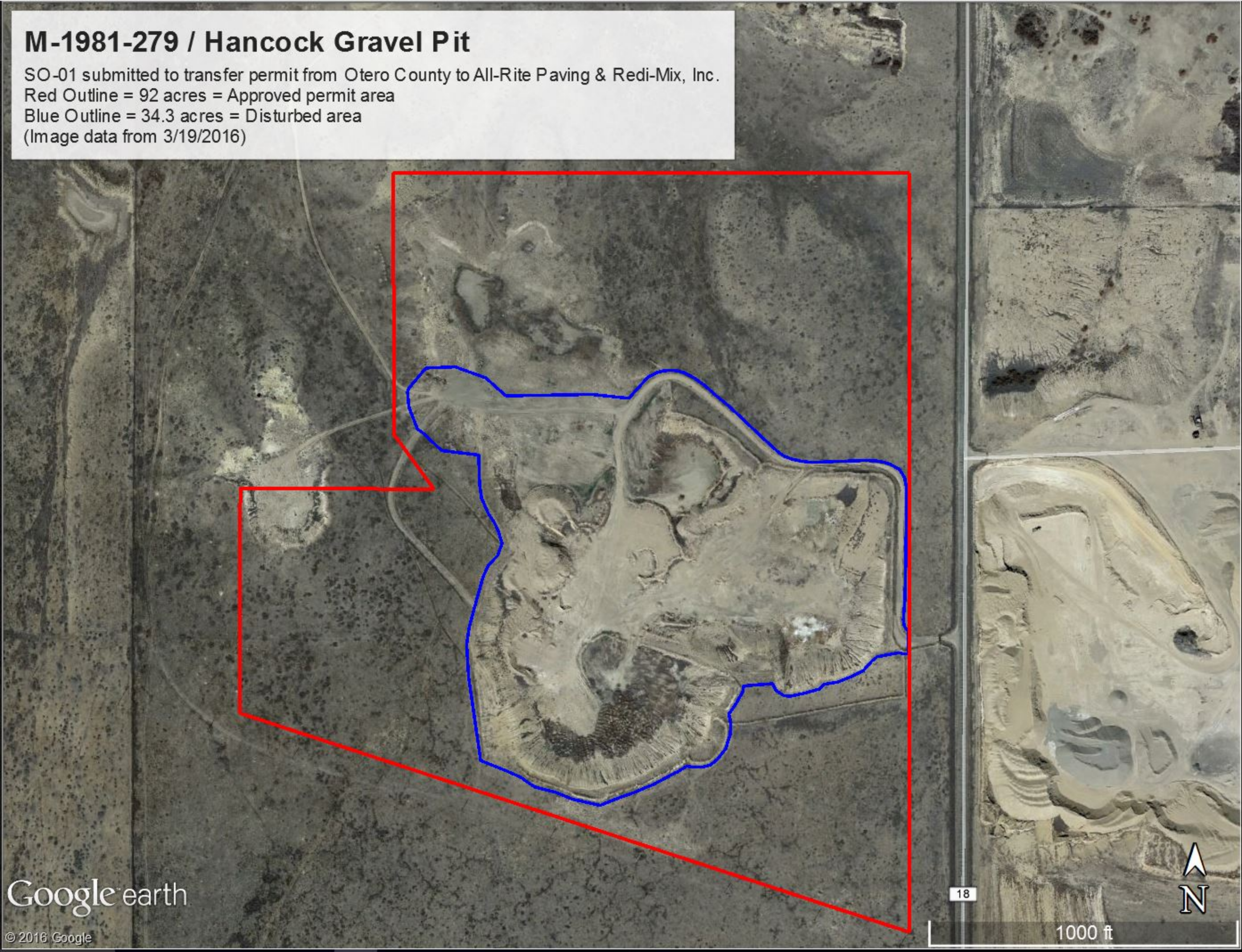
M-1981-279 / Hancock Gravel Pit

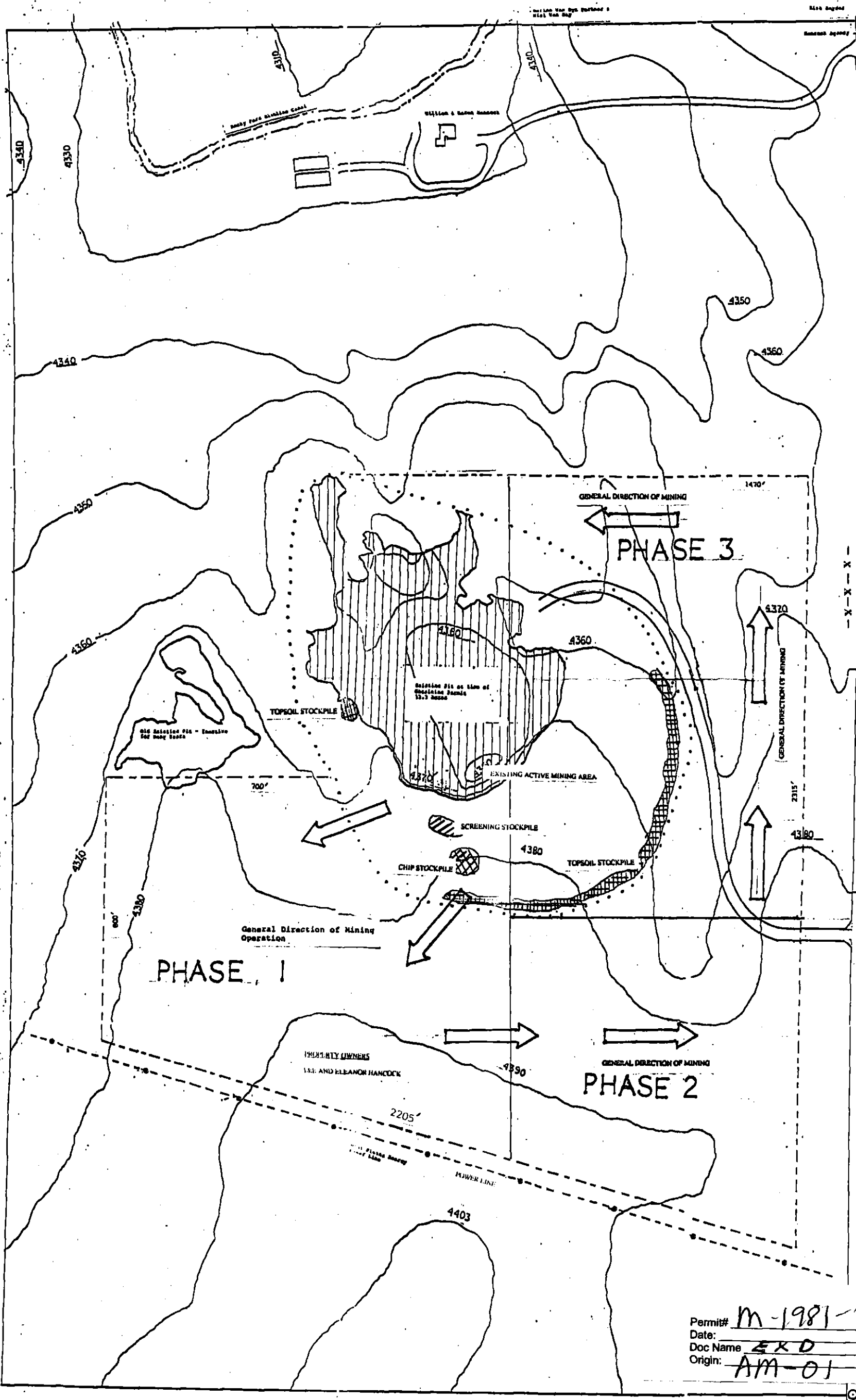
SO-01 submitted to transfer permit from Otero County to All-Rite Paving & Redi-Mix, Inc.

Red Outline = 92 acres = Approved permit area

Blue Outline = 34.3 acres = Disturbed area

(Image data from 3/19/2016)





LEGAL DESCRIPTION
THE S 1/2 OF THE NE 1/4 AND THE N 1/2 OF THE SE 1/4 OF SECTION 26, TOWNSHIP 23 SOUTH, RANGE 57 WEST OF THE 6TH P.M.

NOTES
THE ONLY MANMADE STRUCTURES WITHIN 200' OF THE AFFECTED AREA IS A 4 STRAND BARB WIRE FENCE, EAST OF THE AREA AND A POWER LINE OWNED BY WEST PLAINS ENERGY TO THE SOUTH OF THE AREA. IN THE MEETING WITH THE POWER CO. WE AGREED ON A 50' SET BACK FROM THE POWER LINES.

THE MINING OPERATION WILL NOT ADVERSELY AFFECT THE STABILITY OF ANY SIGNIFICANT VALUABLE MANMADE STRUCTURES LOCATED WITHIN 200' OF THE AFFECTED AREA.

Butley, John, David, Robert & Donald F. Grant (H&H)

SCALE: 1" = 300'

MAP LEGEND
EXISTING PIT PERMITTED AREA
PROPOSED AMENDED PIT AREA
FENCE
POWER LINE

MINING TIME TABLE
1997 TO 2000 1/2 MINE SOUTH AND WEST TO LIMIT LINES
2000 TO 2001 1/2 MINE SOUTH AND EAST TO LIMIT LINES
2001 TO 2002 1/2 MINE FROM SOUTH LIMIT LINE TO NORTH LIMIT LINE
2002 COMPLETE RECLAMATION

PROPERTY OWNERS
LEE AND ELEANOR HANCOCK

OTERO CO. HANCOCK GRAVEL PIT	
MINING MAP	
SCALE: 1" = 300'	DRAWN BY: <i>Ken Parker</i>
DATE PREPARED: SEPT. 17, 1996	

EXHIBIT D

Prepared by OTERO COUNTY
INCLUDES 2 COPIES

Permit# M-1981-279
Date: _____
Doc Name: EXD See Map
Origin: AM-01

00014908

COST SUMMARY WORK

Task description: Cost Summary

Site: Hancock Gravel Pit

Permit Action: SO-01 bond estimate

Permit/Job#: M1981279

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 1/20/2017

County: Otero

Filename: M279-000

User: AME

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill highwalls to 3H:1V	DOZER	1	45.51	\$9,107.00
002	Rip 3 acre stockpiling area	RIPPER	1	4.39	\$942.00
003	Replace 6 inches topsoil on 34.3 acres	SCRAPER1	1	36.10	\$15,085.00
004	Revegetate 34.3 acres to rangeland	REVEGE	1	100.00	\$57,168.00
005	Mobilization/Demobilization	MOBILIZE	1	8.64	\$7,504.00
<u>SUBTOTALS:</u>				194.64	\$89,806

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$1,814.08

Performance bond: 1.05

Total = \$942.96

Job superintendent: 0.00

Total = \$0.00

Profit: 10.00

Total = \$8,980.60

TOTAL O & P = \$11,737.64

CONTRACT AMOUNT (direct + O & P) = \$101,543.64

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

\$5,077.18

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$17,314.82

TOTAL BOND AMOUNT (direct + indirect) = \$107,120.82

BULLDOZER WORKTask description: **Backfill highwalls to 3H:1V**Site: **Hancock Gravel Pit** Permit Action: **SO-01 bond estimate** Permit/Job#: **M1981279****PROJECT IDENTIFICATION**

Task #: **001** State: **Colorado** Abbreviation: **None**
 Date: **1/20/2017** County: **Otero** Filename: **M279-001**
 User: **AME**

Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**

Basic Machine: **Cat D8T - 8SU**
 Horsepower: **310**
 Blade Type: **Semi-Universal**
 Attachment: **NA**
 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:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	50
Operator Cost/Hour:	\$38.89	NA

Total unit Cost/Hour: **\$200.13**
 Total Fleet Cost/Hour: **\$200.13**

MATERIAL QUANTITIES

Initial Volume: **27,407**
 Swell factor: **1.000**
 Loose volume: **27,407 LCY**

Source of estimated volume: **BF 3,700 ft L x 20 ft H, from 2H:1V to 3H:1V**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **60 feet**
 Unadjusted hourly production: **1,246.9 LCY/hr**

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient: **5 %**
 Average site altitude: **4,380 feet**

Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4830

Adjusted unit production: 602.25 LCY/hr

Adjusted fleet production: **602.25** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.332/LCY

Total job time: **45.51** Hours

Total job cost: **\$9,107**

BULLDOZER RIPPING WORK

Task description: Rip 3 acre stockpiling area

Site: Hancock Gravel Pit Permit Action: SO-01 bond estimate Permit/Job#: M1981279

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 1/20/2017 County: Otero Filename: M279-002
User: AME

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper 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: 3.00 acres Rip Depth (ft): 2.00 Volume: 9,680 BCY or CCY

Source of estimated quantity: DRMS estimate from 3/19/2016 aerial image

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.56 mph
Average Ripping Width: 7.08 degrees
Average Ripping Length: 500.00 feet
Average Dozer Speed: 88.00 feet
Average Maneuver Time: 0.25 feet
Production per unit area: 0.822 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.822 Acres/hr
Site Altitude: 4,380 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.68 Acres/hr
Adjusted Hourly Fleet Production: **0.68** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **4.40** Hours

Unit cost: \$313.878 Per acre Total job cost: **\$942**

SCRAPER TEAM WORKTask description: **Replace 6 inches topsoil on 34.3 acres**Site: **Hancock Gravel Pit**Permit Action: SO-01 bond estimatePermit/Job#: M1981279**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 1/20/2017County: OteroFilename: M279-003User: AMEAgency 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:	CAT 14M
-Water Truck:	Water Tanker, 2,500 Gal.

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	75	50
Ownership cost/hour:	\$104.50	NA	NA	NA	\$53.53	\$7.71
Operating cost/hour:	\$129.95	NA	NA	NA	\$42.54	\$9.53
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	NA	NA	NA	\$0.00	\$0.00
Operator cost/hour:	\$34.24	NA	NA	NA	\$35.83	\$0.00
Unit Subtotals:	\$268.69	NA	NA	NA	\$131.90	\$17.24
Number of Units:	1	0	0	0	1	1
Group Subtotals:	Work: \$268.69		Support:	\$0.00	Maint:	\$149.14

Total work team cost/hour: **\$417.83****MATERIAL QUANTITIES**Initial volume: 22,669

CCY

Swell factor: 1.000Loose volume: **22,669**

LCY

Source of estimated volume: 34.3 acres x 6 in depthSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 1 lbs/LCY
 Material description: User Provided
 Rated Payload: 81,600 pounds
 Payload Capacity: 81,600.00 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: 4380 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: 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	500.00	3.00	3.00	6.00	1069	0.49

Haul Time: 0.49 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.00	3.00	0.00	2937	0.31

Return Time: 0.31 minutesTotal Scraper team cycle time: 2.30 minutesAdjusted for job conditions: 627.91 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 627.91 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 627.91 LCY/HourUnadjusted unit production/hour: 756.52 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 36.10 HoursUnit cost: \$0.665 /LCYTotal job cost: \$15,085

REVEGETATION WORKTask description: Revegetate 34.3 acres to rangelandSite: Hancock Gravel PitPermit Action: SO-01 bond estimatePermit/Job#: M1981279**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 1/20/2017County: OteroFilename: M279-004User: AMEAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	121.00	pound	\$0.37	\$44.77
Triple superphosphate, 0-46-0	87.00	pound	\$0.51	\$44.37
			Total Fertilizer Materials Cost/Acre	\$89.14

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
Weed control spraying (MEANS 31 31 16.13 3100)	\$242.00
Total Tilling Cost/Acre	\$330.76

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	3.00	48.97	\$32.01
Sand Dropseed	0.60	71.63	\$4.19
Little Bluestem - Native	3.50	20.89	\$50.09
Sideoats Grama - Vaughn	9.00	29.55	\$101.34
Totals Seed Mix	16.10	171.03	\$187.63

Application

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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:	34.3	Cost /Acre:	\$1,456.89
Estimated Failure Rate:	50%	Cost /Acre*:	\$419.63
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$49,971.33
Reseeding Job Cost:	\$7,196.65
Total Job Cost:	\$57,168
Job Hours:	100.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Mobilization/DemobilizationSite: Hancock Gravel PitPermit Action: SO-01 bond estimatePermit/Job#: M1981279**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 1/20/2017County: OteroFilename: M279-005User: AMEAgency 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 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
CAT 14M	23.57	\$53.53	\$88.67	1	\$142.20	\$88.67	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$30.65	\$88.67	1	\$119.32	\$88.67	\$250.00

Subtotals: **\$707.33** **\$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
Water Tanker, 2,500 Gal.	\$17.24	1	\$17.24	\$17.24

Subtotals: **\$17.24** **\$17.24**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>PUEBLO</u>	
Total one-way travel distance:	<u>58.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$7,463.84</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$40.00</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.16</u>	<u>1.16</u>
Return Time (Hours):	<u>1.16</u>	<u>1.16</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>4.32</u>	<u>2.32</u>

JOB TIME AND COST

Total job time:	<u>8.64</u>	Hours
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Total job cost:	<u>\$7,504</u>
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