



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, Colorado 80203

February 09, 2015

Rudy Torres
Riverside Aggregates, LLC
1750 County Road HH
Lamar, CO 81052

Re: Friederichs Pit 112, Permit No. M-2010-080, 110 to 112 Construction Materials Reclamation Permit Conversion Application (CN-01), Adequacy Review -02

Mr. Torres,

On February 04, 2015, the Division of Reclamation, Mining and Safety (Division) received your response to the preliminary adequacy review of your 110 to 112 Construction Materials Reclamation Permit Conversion application (CN-01). As of the Board Order dated December 05, 2014, the decision date for this application has been extended to **February 26, 2015**.

Please note that any changes or additions to the application in our office must also be reflected in the public review copy which has been placed with the County Clerk and Recorder.

After reviewing your revised application, the Division has the following comments that must be addressed before the application can be approved:

EXHIBIT E - Reclamation Plan (Rule 6.4.5):

- 1) You state in the revised application that topsoil stockpiles which sit for more than a growing season will be stabilized by naturally occurring weed or grass vegetative cover. This answer is not acceptable to the Division as Rule 3.1.9(3) requires topsoil stockpiles to be planted with an annual and/or perennial for the purpose of stabilization. Furthermore, the Division does not consider it an acceptable practice to stabilize topsoil stockpiles with weeds. Please state what type of seed mix will be used to stabilize topsoil stockpile(s) if necessary and include the seeding rate. Some species commonly used for this purpose include triticale, intermediate wheatgrass, sorghum, oats, and/or barley. For more information on choosing an appropriate temporary seed mix, please contact your local NRCS office.*

EXHIBIT L - Reclamation Costs (Rule 6.4.12):

- 1) The Division has calculated the required bond (see enclosed cost summary) based on the disturbance of 14.5 acres of land, which includes backfilling a 15 ft highwall that is 944 ft in length to a 4H:1V gradient, reapplying topsoil at 6 inches deep, and revegetating the disturbed land to pastureland (according to the NRCS recommendations you submitted). Please review the enclosed cost summary and submit any questions or comments by the decision date. Please keep in mind that the calculated costs are for what the Division would incur to reclaim the site. The additional required bond will need*



to be submitted after the application has been approved.

EXHIBIT S - Permanent Man-Made Structures (Rule 6.4.19):

- 1) *You state in the revised application that a structure agreement for the dirt road located within 200 feet of the eastern permit boundary was enclosed. However, no structure agreement for this road was included with your response. Please submit a notarized agreement between you and the person(s) having an interest in the structure (Jack Evans), that you are to provide compensation for any damage to the structure caused by this operation.*

Additional Information:

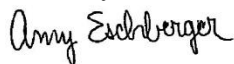
- 1) *Please submit to the Division proof of publication, and proof of all required notices (publication sent to all Owners of Record of the proposed affected area and of all land surfaces within 200 feet of the proposed permit boundary). Requirements for the publication and required notices can be found in Rule 1.6.2(1)(d), (e), and (f) (see enclosed).*

Any comments that the Division has received since the preliminary adequacy review are enclosed with this letter for your review.

This concludes the Division's Adequacy Review-02 of this application. As stated above, the decision date for this application is **February 26, 2015.** **Please be advised that if there are outstanding issues that have not been adequately addressed prior to the end of the review period, the Division will deny this application. Because this is a Board-Ordered application, if it is not approved by the decision date, the Division must bring this matter before the Board. Please submit any adequacy response items to the Division no later than one week prior to the decision date to allow sufficient time for further exchange if required.**

If you need additional information, please contact me at the Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at 303-866-3567, extension 8129, or by email at amy.eschberger@state.co.us.

Sincerely,



Amy Eschberger
Environmental Protection Specialist

Enclosure(s): Cost summary calculated by the Division on 02/06/2015
Requirements for publication and required notices
Comment from Colorado Parks and Wildlife, received on 12/05/2014
Comment from Division of Water Resources, received on 12/10/2014

CC: Tom Kaldenbach, DRMS



COST SUMMARY WORK

Task description: Cost Summary

Site: Friederichs Pit 112 Permit Action: CN-01 2015 Permit/Job#: M2010080

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 2/6/2015 County: Prowers Filename: M080-000
User: AME

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill highwall (15'H x 944'L) to 4H:1V	DOZER	1	73.17	\$12,009.00
002	Reapply topsoil on 14.5 acres, 6 in deep	SCRAPER1	1	18.23	\$5,199.00
003	Revegetate 14.5 acres to pastureland	REVEGE	1	58.00	\$14,825.00
004	Mobilization/Demobilization	MOBILIZE	1	4.15	\$2,516.00
<u>SUBTOTALS:</u>				153.55	\$34,549

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02%	Total =	\$697.89
Performance bond:	1.05%	Total =	\$362.76
Job superintendent:	0.00 hrs	Total =	\$0.00
Profit:	10.00%	Total =	\$3,454.90
		TOTAL O & P =	\$4,515.55
		CONTRACT AMOUNT (direct + O & P) =	\$39,064.55

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>500.00</u>	Total =	<u>500.00</u>
Engineering work and/or contract/bid preparation:	<u>0.00%</u>	Total =	<u>\$0.00</u>
Reclamation management and/or administration:	<u>5.00%</u>		<u>\$1,953.23</u>
CONTINGENCY: 3.00		Total =	<u>\$1,036.47</u>
		TOTAL INDIRECT COST =	<u>\$8,005.25</u>
		TOTAL BOND AMOUNT (direct + indirect) =	<u>\$42,554.25</u>

BULLDOZER WORKTask description: **Backfill highwall (15'H x 944'L) to 4H:1V**Site: **Friederichs Pit 112**Permit Action: **CN-01 2015**Permit/Job#: **M2010080****PROJECT IDENTIFICATION**

Task #: 001 State: Colorado Abbreviation: None
 Date: 2/6/2015 County: Prowers Filename: M080-001
 User: AME

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

Basic Machine: Cat D7R DS XR Series II
 Horsepower: 238
 Blade Type: Semi-Universal
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$46.88	NA
Operating Cost/Hour:	\$79.23	100
Ripper op. Cost/Hour:	\$0.00	100
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: \$164.12Total Fleet Cost/Hour: **\$164.12****MATERIAL QUANTITIES**

Initial Volume: 11,125
 Swell factor: 1.060
 Loose volume: **11,793 LCY**

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 410.8 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: 5 %Average site altitude: 3,785 feetMaterial weight: 2,900 lbs/LCYWeight description: Sand and gravel - Dry**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3923

Adjusted unit production: 161.16 LCY/hr

Adjusted fleet production: **161.16** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.018/LCY

Total job time: **73.17** Hours

Total job cost: **\$12,009**

SCRAPER TEAM WORKTask description: **Reapply topsoil on 14.5 acres, 6 in deep**Site: **Friederichs Pit 112**Permit Action: CN-01 2015Permit/Job#: M2010080**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 2/6/2015County: ProwersFilename: M080-002User: 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:	NA
-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	NA	NA	NA	NA	NA
Ownership cost/hour:	\$80.91	NA	NA	NA	NA	NA
Operating cost/hour:	\$170.75	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$33.56	NA	NA	NA	NA	NA
Unit Subtotals:	\$285.22	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$285.22	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$285.22****MATERIAL QUANTITIES**Initial volume: 8,190

CCY

Swell factor: 1.429Loose volume: **11,700**

LCY

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

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>24.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>34.00</u>	LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u>	LCY
Payload Capacity:	<u>51.00 LCY</u>	Adjusted Capacity:	<u>29.00</u>	LCY

Cycle Time:

Scraper Loading Time: 0.80 Minutes
 Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction:

Site Altitude: 3785 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: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	2.00	4.00	6.00	1069	0.42

Haul Time: 0.42 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	-2.00	4.00	2.00	2914	0.33

Return Time: 0.33 minutesTotal Scraper team cycle time: 2.25 minutesAdjusted for job conditions: 641.87 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 641.87 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 641.87 LCY/HourUnadjusted unit production/hour: 773.33 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 18.23 HoursUnit cost: \$0.444 /LCY Total job cost: \$5,199

REVEGETATION WORKTask description: **Revegetate 14.5 acres to pastureland**Site: **Friederichs Pit 112**Permit Action: CN-01 2015Permit/Job#: M2010080**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 2/6/2015County: ProwersFilename: M080-003User: AMEAgency 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)	\$98.01
Total Tilling Cost/Acre	\$98.01

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	4.00	12.95	\$28.32
Blue Grama - Lovington	1.50	24.48	\$16.29
Little Bluestem - Cimarron	3.50	20.89	\$49.98
Sideoats Grama - Vaughn	4.50	14.77	\$50.58
Western Wheatgrass - Arriba	8.00	20.20	\$29.44
Totals Seed Mix	21.50	93.30	\$174.61

Application

Description	Cost /Acre
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Drill seeding (DRMS Cost Data)	\$88.20
Total Seed Application Cost/Acre	\$88.20

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, 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}	\$65.89
Total Mulch Application Cost/Acre	\$65.89

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:	14.5	Cost /Acre:	\$956.71
Estimated Failure Rate:	25%	Cost /Acre*:	\$262.81
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$13,872.30
Reseeding Job Cost:	\$952.69
Total Job Cost:	\$14,825
Job Hours:	58.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization/Demobilization**Site: **Friederichs Pit 112**Permit Action: **CN-01 2015**Permit/Job#: **M2010080****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **2/6/2015**County: **Prowers**Filename: **M080-004**User: **AME**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 D7R DS XR Series II	32.01	\$46.88	\$117.55	1	\$164.43	\$117.55	\$250.00
Cat 631G	52.50	\$80.91	\$125.45	1	\$206.36	\$125.45	\$250.00

Subtotals: **\$370.79** **\$243.00** **\$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	\$52.78	1	\$52.78	\$52.78

Subtotals: **\$52.78** **\$52.78**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>LAMAR, CO</u>	
Total one-way travel distance:	<u>9.00</u>	miles
Average Travel Speed:	<u>55.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,498.64</u>
* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$17.27</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.16</u>	<u>0.16</u>
Return Time (Hours):	<u>0.16</u>	<u>0.16</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.75</u>	<u>NA</u>
Subtotals:	<u>2.08</u>	<u>0.33</u>

JOB TIME AND COST

Total job time:	<u>4.15</u>	Hours
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Total job cost:	<u>\$2,516</u>
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public review a copy of the application and amendments, without confidential items, with the Clerk or Recorder of the county or counties in which the affected land is located and provide proof as required by Subsection 6.3.9 for 110 Limited Impact and 111 Special Operations and Subsection 6.4.18 for 112 Reclamation Operations.

110(5)(c)

(d) Except for 111 Special Operation Permit applications, within ten (10) days after the Office notifies the Applicant that the application is considered filed, publish a public notice in a newspaper of general circulation in the locality of the proposed mining operation containing:

- (i) name and address of Applicant;
- (ii) location of the proposed mining operation by section, township and range and street address where applicable;
- (iii) proposed dates of commencement and completion of the operation;
- (iv) proposed future use of affected land;
- (v) location where additional information on the operation may be obtained; and
- (vi) location and final date for submitting statements of support or objections with the Office.

110(5)(c), 112(9)(c)

(e) Except for 111 Special Operation Permit applications, the applicant shall mail or personally serve a copy of the notice in Rule 1.6.2(1)(d) immediately after the first publication to:

- (i) all Owners of Record of the surface and mineral rights of the affected land; and

- (ii) the Owners of Record of all land surface within 200 feet of the boundary of the affected lands.
- 110(5)(c),112(9)(c) (f) As soon as designated by the Office, mail a copy of the Notice provided for in Rule 1.6.2(1)(d) to any other Owners of Record who might be affected by the proposed mining operation. The Office shall designate such owners, if any, during its adequacy review process. (Not applicable to 111 Special Operation Permit applications.)
- 110(5)(c),112(9)(c) (g) Prior to Office consideration of the application, submit proof of publication and proof of all required notices. Proof of Notice may be by submitting return receipts of a Certified mailing or by proof of personal service. An application will be considered filed by the Office when the Applicant supplies the proper application fee, a signed affidavit that all notices as provided for in Paragraph 1.6.2(1)(b) have been posted, and the application meets the applicable requirements of Rules 1.4.1, 1.4.2, 1.4.3, 1.4.4, or 1.4.5. Prior to Office consideration of the application, proof of notice provided for in Subparagraphs 1.6.2(1)(d), (e), and (f) must be received by the Office.
- 110(5)(c),112(9)(a) (2) The copy of the permit application, adequacy responses of the applicant, application revisions, and any permit amendment applications placed at the office of the County Clerk or Recorder shall not be recorded, but shall be retained until final agency action, as defined at C.R.S. 24-4-105(14), on said application has occurred, and be available for inspection during such period. At the end of such period, such application may be reclaimed by the Applicant or destroyed. Applicants should contact the Office prior to removal of the copy of the application materials placed with the office of the County Clerk or Recorder in order to ensure compliance with C.R.S. 24-4-105(14).

1.6.3 Specific Provisions - 110 Limited Impact Permit Applications



COLORADO ✓

Parks and Wildlife

Department of Natural Resources

Lamar Service Center
2500 South Main Street
Lamar, CO 81052
P 719.336.6600 | F 719.336.6623

✓ CNØ1

RECEIVED

✓ DEC 05 2014

✓ DIVISION OF RECLAMATION
MINING AND SAFETY

November 13, 2014

✓ Amy Eschberger
Environmental Protection Specialist
DIVISION OF RECLAMATION, MINING AND SAFETY
Department of Natural Resources
1313 Sherman St., Room 215
Denver, CO 80203

Dear Ms. Eschberger

Thank you for the opportunity to comment ✓ on File No. M-2010-080, ✓ Friedrichs Pit, in Prowers County. District Wildlife Manager Rick Gardner recently visited the site described as section 18, Township 22S, Range 47W in Prowers County. The site is an existing gravel pit with agricultural ground surrounding it. Wildlife expected at the site would be primarily small ground-dwelling mammals including rabbits and mice, ground nesting birds such as scaled quail, passerine and migratory birds, fox, raccoon, coyotes as well as larger mammals including deer.

Impacts of the development, as proposed, may be characterized as minimal due to the current uses, size, and location of the proposed site. This does not mean that the landscape has no value to wildlife. Care should be taken during pit operation to minimize adverse impacts to wildlife that may be present (i.e. minimize noise during dusk/dawn time frames when wildlife are most likely to be present or active; avoid noticeable wildlife on site.) Reclamation of the site following the mining should utilize topsoil and native vegetation to the extent possible, and slopes should be returned to a three to one slope.

If you have any further questions, please contact District Wildlife Manager Rick Gardner at 719-940-3585

Sincerely,

Travis Black
Area Wildlife Manager
Colorado Parks and Wildlife
2500 S. Main St.
Lamar, CO 81052





DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

John W. Hickenlooper
Governor

Mike King
Executive Director

Dick Wolfe, P.E.
Director/State Engineer

Response to Reclamation Permit Conversion Application Consideration

DATE: December 9, 2014
TO: Amy Eschberger, Environmental Protection Specialist
CC: Division 2 Office; District 67 Water Commissioner
FROM: Caleb Foy, E.I.T. CRF
RE: Friederichs Pit, File No. M-2010-080
Operator: Riverside Aggregates
Contact: Rudy Torres, (719) 336-7361
Sec. 18, Twp. 22S, Rng. 47W, 6th P.M., Prowers County

RECEIVED

✓
DEC 10 2014

DIVISION OF RECLAMATION
MINING AND SAFETY

CONDITIONS FOR APPROVAL

- ☒ The proposed operation does not anticipate exposing groundwater. Therefore, exposure of ground water must not occur during or after mining operations. If stormwater is contained on-site, it must infiltrate into the ground or be released to the natural stream system within 72 hours, or all work must cease until a substitute water supply plan, or augmentation plan approved by water court, is obtained. Reclamation plans must ensure water will not be retained onsite for more than 72 hours unless an augmentation plan approved by water court is obtained.
- ☒ Other: All water brought on site for mining needs shall be a legal supply of water provided by an appropriate supplier.

COMMENTS: The local Water Commissioner, Becky Nichols, may be contacted at (719) 688-6711 or rebecca.nichols@state.co.us regarding legal supplies of water in the area.

Office of the State Engineer

1313 Sherman Street, Suite 818 • Denver, CO 80203 • Phone: 303-866-3581 • Fax: 303-866-3589

<http://water.state.co.us>