



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

January 15, 2025

Kasie Smith
KS Land, LLC
11822 Kristi Lane
Overbrook, OK 73453

**Re: Adequacy Review No. 2, 112c Construction Materials Amendment Application (AM-1)
Four X Ranch Gravel Pit, Permit No. M-2014-033**

Ms. Smith:

On December 21, 2024, the Division of Reclamation, Mining and Safety (Division/DRMS) received your responses to the Division's Preliminary Adequacy Review letter dated October 23, 2024. After review of your responses the Division has identified additional items that need to be addressed.

The following items will need to be addressed to the Division's satisfaction prior to the decision date. If you are unable to satisfactorily address the concerns identified in this review before the decision date, it will be your responsibility to request an extension of the review period. If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division may deny this application. After receipt and review of the Applicant/Operator's response to these items the Division may identify additional adequacy items. Please respond to Adequacy Review No. 2 with the requested additional/updated information and summarize each response in a cover letter titled "Adequacy No. 2 Response; M-2014-033".

GENERAL REQUIREMENTS OF EXHIBITS (Rule 6.2.1):

1. A review of the maps indicates the scales are incorrect and need to be updated for consistency and accuracy. Specifically, the scales of the maps do not accurately reflect physical distances between points. The Division estimates the distance between Mining Area A points NE-SE corners to be 1,700 feet. When measured using the scales on the maps provided the distance is different. Please revise and update the maps to be accurate.

Pursuant to Rule 6.2.1(2) all maps and figures submitted must comply with the following requirements:

Maps, except the index map, must conform to the following criteria:

- (a) show name of Applicant;



- (b) must be prepared and signed by a registered land surveyor, professional engineer, or other qualified person;
- (c) give date prepared;
- (d) identify and outline the area which corresponds with the application;
- (e) with the exception of the map of the affected lands required in Section 34-32.5-1 12(2)(d), C.R.S. 1984, as amended, shall be prepared at a scale that is appropriate to clearly show all elements that are required to be delineated by the Act and these Rules. The acceptable range of map scales shall not be larger than 1 inch = 50 feet nor smaller than 1 inch = 660 feet.

EXHIBIT C – Pre-Mining and Mining Plan Map(s) of Affected Lands (Rule 6.4.3):

- 2. The coordinates for the haul road (0.6 acres) leading from Mining Area A to Mining Area B need to be provided, see Rule 6.4.4(j). Please note that any disturbance(s) outside of this area during construction or use of the haul road may be subject to enforcement actions.
- 3. In review of the permit boundary coordinates given additional clarification is needed. The Division, using the coordinates provided, calculated the area for Mining Area A to be 58.31 acres not the stated 58.1 acres and for Mining Area B the area is 16.33 acres not the stated 16 acres. The Division area calculations indicate the proposed permit area should be 77.65 acres not the 77.1 acres in the application. Please provide updated coordinates for Mining Area A and/or Mining Area B to be consistent with the application.

EXHIBIT D – Mining Plan (Rule 6.4.4):

- 4. The Applicant has proposed a maximum of 30 acres to be disturbed at any one time, this includes acres being mined, acres being reclaimed, and acres that have been reclaimed but credit for completion of reclamation has not been approved by the Division. Any area planned to be disturbed beyond the 30-acre limit would require approval of a Technical Revision increasing the allowed disturbed acreage prior to affecting new areas. Please acknowledge understanding of this requirement.

EXHIBIT E – Reclamation Plan (Rule 6.4.5):

- 5. Please provide an updated Reclamation Plan text that clearly incorporates your responses to the Division's Preliminary Adequacy Review.

EXHIBIT F – Reclamation Plan Map (Rule 6.4.6):

- 6. Please update the Reclamation Plan map according to item #1 above.

EXHIBIT L – Reclamation Costs (Rule 6.4.12):

7. The processing area will need to be ripped prior to placement of overburden/topsoil. The Division estimates the area to be ripped prior to placement is 3 acres. Please comment on this item and incorporate the item into the reclamation plan as needed.
8. Attached for your review is the Division's reclamation cost estimate.

Other:

9. Pursuant to Rule 1.6.2(2), please demonstrate that the Applicant's response to these adequacy issues have been placed with the application materials previously placed with the County Clerk or Records Office and made available for public review.

Please respond to these adequacy issues no later than two weeks before the decision deadline, to ensure ample time for the Division to complete its review prior to its decision date. **The decision date for this application is February 2, 2025.** If additional time is required to respond to these adequacy issues, please submit a written request for extension of the review period. The Division reserves the right to further supplement this document with additional adequacy issues and details as necessary.

If you need additional information or have any questions, please contact me by email at patrick.lennberg@state.co.us.

Sincerely,



Patrick Lennberg
Environmental Protection Specialist

Attachment: Division Reclamation Cost Estimate

cc: Jared Ebert, DRMS

ec: Kasie Smith, KS Land, LLC, kasielsmith@gmail.com

Attachments

COST SUMMARY WORK

Task description: Cost Summary

Site: Four X Ranch Gravel Pit

Permit Action: AM-1

Permit/Job#: M2014033

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 1/15/2025

County: Morgan

Filename: M033-000

User: JPL

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Grade Out Highwall	DOZER	1	6.27	\$1,365
002	Grade Topsoil/Overburden	DOZER	1	53.05	\$11,526
002a	Rip Processing Area	RIPPER	1	5.26	\$1,169
003	Reveg	REVEGE	1	25.00	\$61,811
004	Mob/Demob	MOBILIZE	1	5.14	\$4,503
<u>SUBTOTALS:</u>				94.72	\$80,374

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$1,624

Performance bond: 1.05

Total = \$844

Job superintendent: 47.36

Total = \$3,754

Profit: 10.00

Total = \$8,037

TOTAL O & P = \$14,259

CONTRACT AMOUNT (direct + O & P) = \$94,633

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 8.00

Total = \$7,571

Reclamation management and/or administration: 5.81

\$5,498

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$27,828

TOTAL BOND AMOUNT (direct + indirect) = \$108,202

BULLDOZER WORKTask description: **Grade Out Highwall**Site: **Four X Ranch Gravel Pit**Permit Action: **AM-1**Permit/Job#: **M2014033****PROJECT IDENTIFICATION**Task #: **001**State: **Colorado**Abbreviation: **None**Date: **1/15/2025**County: **Morgan**Filename: **M033-001**User: **JPL**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS XR Series II**Horsepower: **240**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$90.24	NA
Operating Cost/Hour:	\$78.95	100
Ripper own.		
Cost/Hour:	\$9.25	NA
Ripper op. Cost/Hour:	\$0.52	10
Operator Cost/Hour:	\$38.59	NA
Total unit Cost/Hour:	\$217.55	
Total Fleet Cost/Hour:	\$217.55	

MATERIAL QUANTITIESInitial Volume: **1,958**Swell factor: **1.430**Loose volume: **2,800 LCY**Source of estimated volume: **1,500 ft long x 15 ft deep at 1:1 slope**

Source of estimated swell

factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **75 feet**

Unadjusted hourly

production: **854.1 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**

Average push

gradient: **-5 %**Average site altitude: **4,650 feet**Material weight: **3,300 lbs/LCY**Weight description: **Decomposed rock - 75% Rock, 25% Earth****Job Condition Correction Factor**Operator Skill: **0.750****Source****(AVG.)**

Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5225

Adjusted unit
production: 446.27 LCY/hr

Adjusted fleet
production: **446.27** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.487/LCY

Total job time: **6.27** Hours

Total job cost: **\$1,365**

BULLDOZER WORKTask description: **Grade Topsoil/Overburden**Site: **Four X Ranch Gravel Pit**Permit Action: **AM-1**Permit/Job#: **M2014033****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **1/15/2025**County: **Morgan**Filename: **M033-002**User: **JPL**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS XR Series II**Horsepower: **240**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$90.24	NA
Operating Cost/Hour:	\$78.95	100
Ripper own.		
Cost/Hour:	\$9.25	NA
Ripper op. Cost/Hour:	\$0.26	5
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: **\$217.29**Total Fleet Cost/Hour: **\$217.29****MATERIAL QUANTITIES**Initial Volume: **20,200**Swell factor: **1.000**Loose volume: **20,200 LCY**Source of estimated volume: **30 acres with 5-inches**

Source of estimated swell

factor:

Cat Handbook**HOURLY PRODUCTION**Average push distance: **100 feet**

Unadjusted hourly

production:

714.3 LCY/hrMaterials consistency description: **Loose stockpile 1.2**

Average push

gradient:

Average site altitude: **4,650 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor**Operator Skill: **0.750****Source****(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:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5331

Adjusted unit
production: 380.79 LCY/hr
Adjusted fleet
production: **380.79** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.571/LCY

Total job time: **53.05** Hours
Total job cost: **\$11,526**

BULLDOZER RIPPING WORK

Task description: Rip Processing Area

Site: Four X Ranch Gravel Pit

Permit Action: AM-1

Permit/Job#: M2014033

PROJECT IDENTIFICATION

Task #: 002A

State: Colorado

Abbreviation: None

Date: 1/15/2025

County: Morgan

Filename: M033-002a

User: JPL

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS XR Series II

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$90.24</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$78.95</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$9.25</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$5.20</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.59</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$222.23</u>	
Total Fleet Cost/Hour:	<u>\$222.23</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 3.00 acres

Rip Depth (ft): 1.00

Volume: 4,840

BCY or CCY

Source of estimated quantity: Division Estimate of Processing Area

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	<u>feet/pass</u>
Average Ripping Width:	<u>6.50</u>	<u>feet/pass</u>
Average Ripping Length:	<u>150.00</u>	<u>feet/pass</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet/minute</u>
Average Maneuver Time:	<u>0.25</u>	<u>minutes/pass</u>
Production per unit area:	<u>0.687</u>	<u>acres/hour</u>

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.687 Acres/hr

Site Altitude: 4,650 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.57 Acres/hr

Adjusted Hourly Fleet Production: 0.57 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 5.26 Hours

Unit cost: \$389.675 Per acre Total job cost: \$1,169

REVEGETATION WORKTask description: RevegSite: Four X Ranch Gravel PitPermit Action: AM-1Permit/Job#: M2014033**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 1/15/2025County: MorganFilename: 003User: JPLAgency 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
Chisel plowing {DMG}	\$102.41
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$441.21

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Lovington	0.20	3.26	\$5.55
Little Bluestem - Camper	0.50	2.98	\$6.79
Sand Dropseed	0.30	35.81	\$3.90
Sideoats Grama - Vaughn	0.70	2.30	\$17.21
Red Clover - Medium	0.20	1.24	\$1.41
Smooth Brome - Lincoln	0.30	1.00	\$1.46
Thickspike Wheatgrass - Critana	0.80	2.83	\$6.52
Western Wheatgrass - Arriba	1.60	4.04	\$14.45
Prairie Sandreed - Goshen	0.40	2.51	\$6.81

Totals Seed Mix	5.00	55.97	\$64.11
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Application

Description	Cost / Acre
Drill Seeding (DRMS Survey Cost)	\$236.64
Total Seed Application Cost/Acre	\$236.64

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description	Cost / Acre
Crimping, with tractor {DMG survey data}	\$85.37
Power mulcher (MEANS 32 91 13.16 0350)	\$157.25
Total Mulch Application Cost/Acre	\$242.63

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: 30 Cost /Acre: \$1,970.15
 Estimated Failure Rate: 30% Cost /Acre*: \$300.75
 *Selected Replanting Work Items: SEEDING

Initial Job Cost: **\$59,104.50**
 Reseeding Job Cost: **\$2,706.75**
 Total Job Cost: **\$61,811**
 Job Hours: **25.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **Four X Ranch Gravel Pit**Permit Action: AM-1Permit/Job#: M2014033**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 1/15/2025County: MorganFilename: M033-004User: JPLAgency 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:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

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	35.93	\$99.49	\$122.78	1	\$222.27	\$122.78	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	2	\$200.92	\$118.88	\$500.00
Power Mulcher (Bowie LD-90)	6.00	\$27.21	\$59.44	1	\$86.65	\$59.44	\$250.00

Subtotals: **\$509.84** **\$301.10** **\$1,000.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
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Subtotals: **\$0.00** **\$0.00**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	FT MORGAN	
Total one-way travel distance:	10.00	miles
Average Travel Speed:	35.00	mph

Total Non-Roadable Mob/Demob Cost *	\$4,502.75
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$0.00
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.29	0.29
Return Time (Hours):	0.29	0.29
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.57	0.57

JOB TIME AND COST

Total job time:	5.14	Hours
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Total job cost:	\$4,503
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