

March 1, 2024

Project No. 111390

Ms. Hunter Ridley
Division of Reclamation, Mining, and Safety
Department of Natural Resources
Room 215, 1001 E 62nd Avenue
Denver CO 80216

RE: Response to the Preliminary Adequacy Review - Western Equipment & Truck Mine #1,
112c Construction Materials Reclamation Permit Application, File No. M-2023-043

Engineering Analytics Inc. (EA) is providing the following responses on behalf of the Applicant, Western Equipment and Truck, Inc. Western Equipment and Truck, Inc. is submitting these revisions for obtaining a Mining Permit for the extraction of top soil located at 23988 U.S. 34, Kersey, CO.

The following paragraphs and attachments provide required revisions on comments obtained on January 12, 2024 from Hunter Ridley that are the responsibility of EA

GENERAL COMMENTS

Comment 3 – *Please add features to maps C-1 and F and to their legends which delineate between the proposed permit boundary, parcel area outline, and the area of minable acreage.*

Response: Figures C-1 and have been updated to include a boundary line between the proposed permit boundary, parcel, parcel area outline and the area of minable acreage.

Comment 4 – *Pursuant to Rule 3.1.12(2), boundaries of the affected area will be marked by monuments or other markers that are clearly visible and adequate to delineate such boundaries. Please provide the Division with GPS locations for each of these boundary markers and / or a kmz file which outlines the exact permit boundary.*

Response: GPS locations have been provided for each boundary marker. In addition, a shapefile has been included at the request of Hunter Ridley, which outlines the precise mine permit boundary.

Comment 5 – *Please add a label and line to all site maps to outline where any transmission or utility lines as referenced in Exhibit C are located. Please also outline and label the location of the southern oil and gas facility on all maps. Ensure that a proper legend accompanies these features.*

Response: The transmission/utility lines have been added to all site maps, and the legends have been modified to include the transmission/utility lines. The oil and gas

facility, located near the southwest corner of the subject parcel, has been added to all maps, and the legends have been modified to reflect this addition.

EXHIBIT C – PRE-MINING AND MINING PLAN MAP(S) OF AFFECTED LAND

Comment 6 – *Please identify the structure located in the northeast corner of the 70.25 Raptor Materials LLC parcel which is south of the proposed operation area. If this is a structure withing 200 feet of the proposed permit boundary, please obtain a structures agreement for this feature pursuant to Rule 6.4.19*

Response: The structure located at the northeast corner of the Raptor Materials LLC is a PDC tank farm. Richard Miller is obtaining a structures agreement from them.

Comment 7- Pursuant to Rule 6.4.3(g), please update the label for the parcel owned by Van Maanen to state what type of structure is located in the parcel. Ensure that any additional structures outlined on the map through this adequacy review also indicate the type of structure present.

Response: *Exhibit C-1 has been modified to reflect that the Van Maanen property is a private residence.*

EXHIBIT D – MINING PLAN

Comment 8 - *The proposed mining plan states that the area to be mined has ~24 – 26 inches of topsoil available and that mining activity would strip ~10 – 12 inches of topsoil. Using conservative estimates, this would leave ~ 12 inches of topsoil still on the mined area. If this is the case, please clarify for the Division why the proposed plan only commits to leaving a minimum of 2 inches of topsoil over the gravely sand subsoil. Please also update Exhibit E to include this clarification*

Response: The proposed minable depth was set at 10-12 inches to meet our client's requirements for mining profitability. The estimated topsoil does state 24-26 inches of minable topsoil. The proposed mining depth has been revised to be 10 to 20 inches with . We updated our commitment to leave at minimum 6 inches of topsoil to meet all regulations and promote the best seed growth. Without mining the area, it is difficult to know the exact minable area and depth of topsoil. Exhibits E, F and D has been modified to clarify the depth of the topsoil to be mined.

Comment 9 - *Should transportation of recently mined 'live' topsoil be halted or prolonged for any reason, please provide a statement within the mining plan which indicates that topsoil which will not be moved within a short enough timeframe to avoid deterioration of the topsoil and/ or erosion will be appropriately seeded pursuant to Rule 3.1.9(1).*

Response: Topsoil which will not be moved within a short enough timeframe, to avoid deterioration of the topsoil and/or erosion, will be appropriately seeded pursuant to Rule 3.1.9(1).

EXHIBIT E – RECLAMATION PLAN

Comment 10 - *Is the buffalograss seed application rate of “10 pounds of seed per acre” referenced in Section 4.0 of the Reclamation Plan the PLS (pure live seed) per acres measurement for the intended revegetation? If not, please provide this figure in terms of PLS.*

Response: The buffalo grass seed application will be applied at a rate of 10 pounds of pure live seed (PLS) per acre.

Comment 11 - *Pursuant to Rule 6.4.5(e), please provide an approximate timetable reference to when reclamation activities will begin and end. In an effort to protect topsoil to be used for onsite reclamation, the Division encourages concurrent reclamation and immediate reseeding of areas once they have been stripped of topsoil product. Please address this within the narrative of Exhibit E.*

Response: The approximate timetable for reseeding will occur in late spring or early summer to promote the most effective grass growth. Planting outside of these seasons would not be recommended due to limited effectiveness. Narrative has been updated In Exhibit E to reflect this proposed timeline.

Comment 12 - *Pursuant to Rule 6.4.5(f)(ii), please suggest an expected time(s) of seeding and planting of buffalograss.*

Response: The approximate timetable for reseeding will occur in late spring, early summer, late fall to promote the most effective grass growth. Planting outside of these seasons would not be recommended.

EXHIBIT G – WATER INFORMATION

Comment 13 - *Section 2.0 and 3.0 of Exhibit G state that 8-10 inches of topsoil will be removed during mining operations. Exhibits D and E state that 10-12 inches of topsoil will be removed. Please revise the relevant sections to be consistent with each other.*

Response: Topsoil removal depths for Exhibits G, D, and E have been modified or consistency with the focus on leaving at least 6” of topsoil at a minimum to promote efficient revegetation

Comment 14 - *Pursuant to Rule 6.4.7(3), The Operator/Applicant shall provide an estimate of the project water requirements including flow rates and annual volumes for the development, mining*

and reclamation phases of the project. Please provide these approximations regarding the proposed use of a 2,000 gallon water truck.

Response: It is anticipated that the truck will be filled four times a day for a total of 8000 gallons of water applied per day. With our maximum intended schedule of 6 days a week for 50 weeks, the estimate comes to 2,400,000 gallons of annual water usage for dust control. The work schedule uses 50 weeks to anticipate holidays and winter weather that would make mining operations undesirable.

Comment 15 - *Please update Section 4.0 of this Exhibit to include a specific reference to which municipal water sources will be used to fulfill the needs of the operation*

Response: The water will be obtained from the Central Weld County Water District water filling station.

EXHIBIT I– SOILS INFORMATION

Comment 16 - *Please provide the Division with a copy of the full Web Soil Survey report done for the proposed operation site area.*

Response: A copy of the Web Soil Survey has been provided with Exhibit I.

CONCLUSION

The updated exhibits are attached to this memorandum. Please feel free to contact me at 970-488-3111 should you have any questions or concerns regarding the application.

Respectfully Submitted,
Engineering Analytics, Inc.



Jason Andrews, P.E.
Project Manager, Senior Geotechnical Engineer

ATTACHMENTS



Technical Memorandum

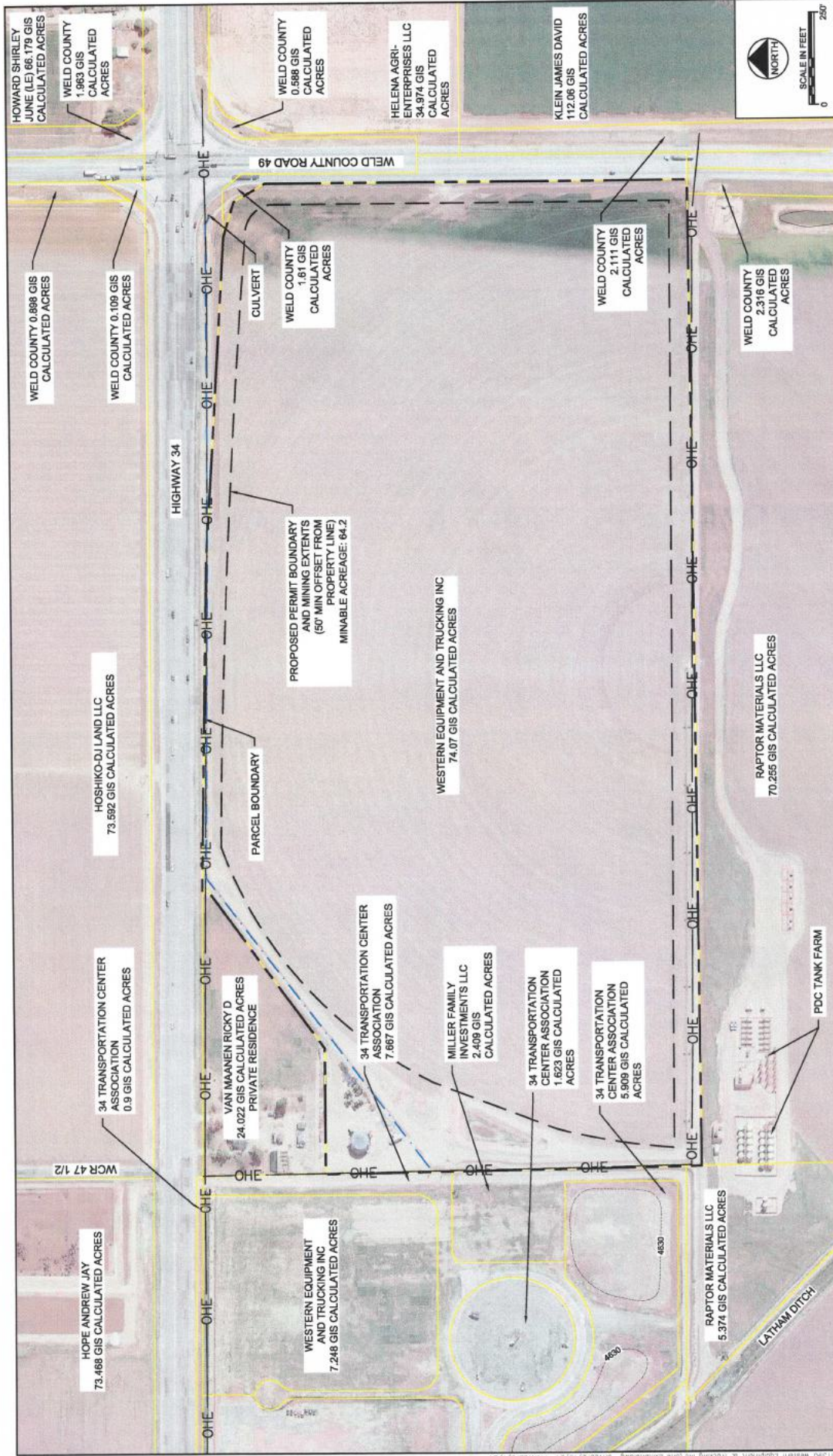
To:	Craig Sparrow	From:	Jason Andrews, P.E. Eric Roads, E.I.T.
Company:	Western Equipment and Truck, Inc.	Date:	February 12, 2024
EA No.:	111390		
Re:	Exhibit C – Pre-Mining and Mining Plan Map of Affected Lands V2 Applicant: Western Equipment and Truck, Inc. Address: 23988 U.S. 34, Kersey, CO		

The adjoining surface owners are shown on Table C1 and Exhibit C-1. The adjoining land owners names are were obtained from the Weld County Assessors page. During EA's site visit on May 30, 2023, overhead power lines were observed on the north, south, and west property lines. The overhead power lines are not within the proposed mining area. Oil and gas facilities are noted to the south of the property, but are not known to exist on the parcel in this application. Vegetation on site is native grasses with evidence of past agriculture.

The parcel size is about 74 acres and 64 acres will be mined and affected by the operation.

Exhibit F shows the existing topography and aerial image. In conjunction with Exhibit I, topsoil has been determined to be suitable for topsoil replacement. No creeks were noted during the site visit. The current use of the property is planted irrigated farmland. The USDA websoil survey (<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>) indicates that the parcel to be mined consists of Altvan Loam with 0 to 1% slopes comprising 72% of the site and Ascalon Loam with 0 to 1 percent slopes comprising about 1% of the site, and Dacono Clay comprising about 27% of the site. Please refer to Exhibit I for more information on the soils survey and a hardcopy of the downloaded Web Soil Survey.

Table C1: Adjoining Owners	
Adjoining Surface Owners	Parcel ID
Raptor Materials LLC	"096124100018"
Raptor Materials LLC	"096124000028"
34 Transportation Center Association	"096124202010"
Miller Family Investments LLC	"096124202006"
Western Equipment and Truck Inc	"096124202005"
34 Transportation Center Association	"096124202013"
Van Maanen Ricky D	"096124100037"
Hoshhiko-DJ Land LLC	"096113400010"
Shaklee Howard Irrevocable Trust	"096318300014"
Weld County	"096319200001"
Weld County	"096124100005"
Helena Agri-Enterprises LLC	"096319200002"
Klein James David	"096319200004"



February 2024

Project No. 111390

Engineering Analytics, Inc.

EXHIBIT C-1

PRE-MINING AND MINING PLAN MAPS OF AFFECTED LAND

WESTERN EQUIPMENT AND TRUCKING INC.

MINE #1

LEGEND

<p>APPROXIMATE LAND OWNERSHIP BOUNDARY</p> <p>FROM WELD COUNTY PROPERTY PORTAL</p> <p>URL: https://www.co.weld.co.us/maps/propertyportal/</p> <p>ACTUAL PROPERTY LINES TO BE DETERMINED BY PROFESSIONAL SURVEY</p>	<p>EXISTING CONTOUR</p> <p>PARCEL BOUNDARY</p> <p>PROPOSED PERMIT BOUNDARY</p> <p>EXISTING OVERHEAD UTILITY LINE</p> <p>DITCH ON NORTH SIDE OF PROPERTY</p>
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Technical Memorandum

To:	Craig Sparrow	From:	Jason Andrews, P.E. Eric Roads, E.I.T.
Company:	Western Equipment and Truck, Inc.	Date:	March 1, 2024
EA No.:	111390		
Re:	Exhibit D – Mining Plan V2 Applicant: Western Equipment and Truck, Inc. Address: 23988 U.S. 34, Kersey, CO		

The parcel to be mined is approximately 74 acres. The total minable area is approximately 64 acres. The primary commodity to be mined is topsoil for use as revegetation by the oil and gas industries. The operator plans no production or sale of secondary or incidental products. The material will be excavated using a Volvo 350 loader, Volvo 260 loader, CAT14G grader, D7CAT bulldozer, and 2010 international water truck 4900 series with a 2000 gal water tank. No blasting of the material will be required to excavate the resource. The excavated material will be loaded into highway trucks. No onsite processing of soils will be completed. Client owns and operates a used truck sale lot. Trucks and equipment that can be transported back to his equipment yard will be stored there overnight.

The proposed mining is to strip the top 10-20 inches of topsoil from the site to be sold for revegetation of oil and gas roads and pads. A minimum of 6 inches of topsoil will be left in the mining area to allow for efficient and productive reclamation of the mining area. This minimum is based on regional requirements and is mentioned to emphasize that the minimum requirements will be met. Based on USDA site mapping it is anticipated there is about 24 to 26 inches of topsoil underlain by gravelly sand.

The desire is to maintain “live” topsoil onsite. Thus, topsoil will be mined as needed and will not be stockpiled on site for longer than 1 week. In reality, topsoil will be harvested and transported as soon as possible, likely next day, to maintain the integrity of the topsoil. Top soil which will not be moved within a short enough timeframe will be appropriately seeded to avoid deterioration of the topsoil and/or erosion. It is anticipated that no more than 5 acres will be activity mined at one time. It is expected that the overall excavation will take a year. Water for dust control will be applied with a water truck. Water will be purchased from local sources. The water rights for site have been sold, however the applicant has maintained a strong relationship with buyers and has a reliable supply as needed.

The primary access for the removal of topsoil is along Weld County Road 49 along the east side of the property. No onsite processing will occur; thus, no permanent haul roads or onsite facilities will be established. Top soil extraction will begin near the entrance at Weld County Road 49 and

will continue from that point. It is the intent to mine the property in such a way to reclaim and reseed as much as possible while the next stage is being extracted. The reseeding process will be completed before the next stage of extraction begins. During extraction of the topsoil, silt control fence and other best management practices for the control of surface water will be used around the currently mined area approximately 5 acres in size. The site will remain level during excavation and will be depressed from the current ground surface. Thus, no off-site storm water flows or concentrated flows are expected and to occur no storm water ponds are needed.



Technical Memorandum

To:	Craig Sparrow	From:	Jason Andrews, P.E. Eric Roads, E.I.T.
Company:	Western Equipment and Truck, Inc.	Date:	March 1, 2024
EA No.:	111390		
Re:	Exhibit E – Reclamation Plan V2 Applicant: Western Equipment and Truck, Inc. Address: 23988 U.S. 34, Kersey, CO		

1.0 POST-MINING LAND USE

Post mine site use will consist of revegetated land seeded with buffalo grass. This post mine land use is consistent with the current land use and other commercial uses along Highways in this area.

2.0 TOPSOIL SEGREGATION AND STOCKPILING

Topsoil is the commodity that will be removed from the site. A minimum, 6" of topsoil will be left for a seed bed to promote efficient seed growth. During operations topsoil will be stripped and placed on site for transport.

3.0 RECLAMATION SITE GRADING

The final site will be left level for use as a revegetated field. The mining operation will only take the top 10 to 20 inches of soil and will not leave any pits. Any cut slopes will be regraded with a minimum of 3(H):1(V) slopes. The revegetation area is shown on Exhibit F and is attached to this technical memorandum. No contours are shown on Exhibit F, as the site will be left flat.

4.0 REVEGETATION

The mined area will be reseeded with buffalo grass at an application rate of 10 pounds of seed per acre as pure live seed (PLS). The seed will be planted by drilling and placement. The reseeding will be completed for all areas of the site disturbed through topsoil extraction and will consist of about 64.2 acres. The reseeding is expected to take place in the late spring or early summer to promote the most efficient grass growth.



Technical Memorandum

To:	Craig Sparrow	From:	Jason Andrews, P.E. Eric Roads, E.I.T.
Company:	Western Equipment and Truck, Inc.	Date:	March 1, 2024
EA No.:	111390		
Re:	Exhibit F – Reclamation Plan Map V2 Applicant: Western Equipment and Truck, Inc. Address: 23988 U.S. 34, Kersey, CO		

1.0 EXPECTED PHYSICAL APPEARANCE OF THE AREA OF AFFECTED LAND

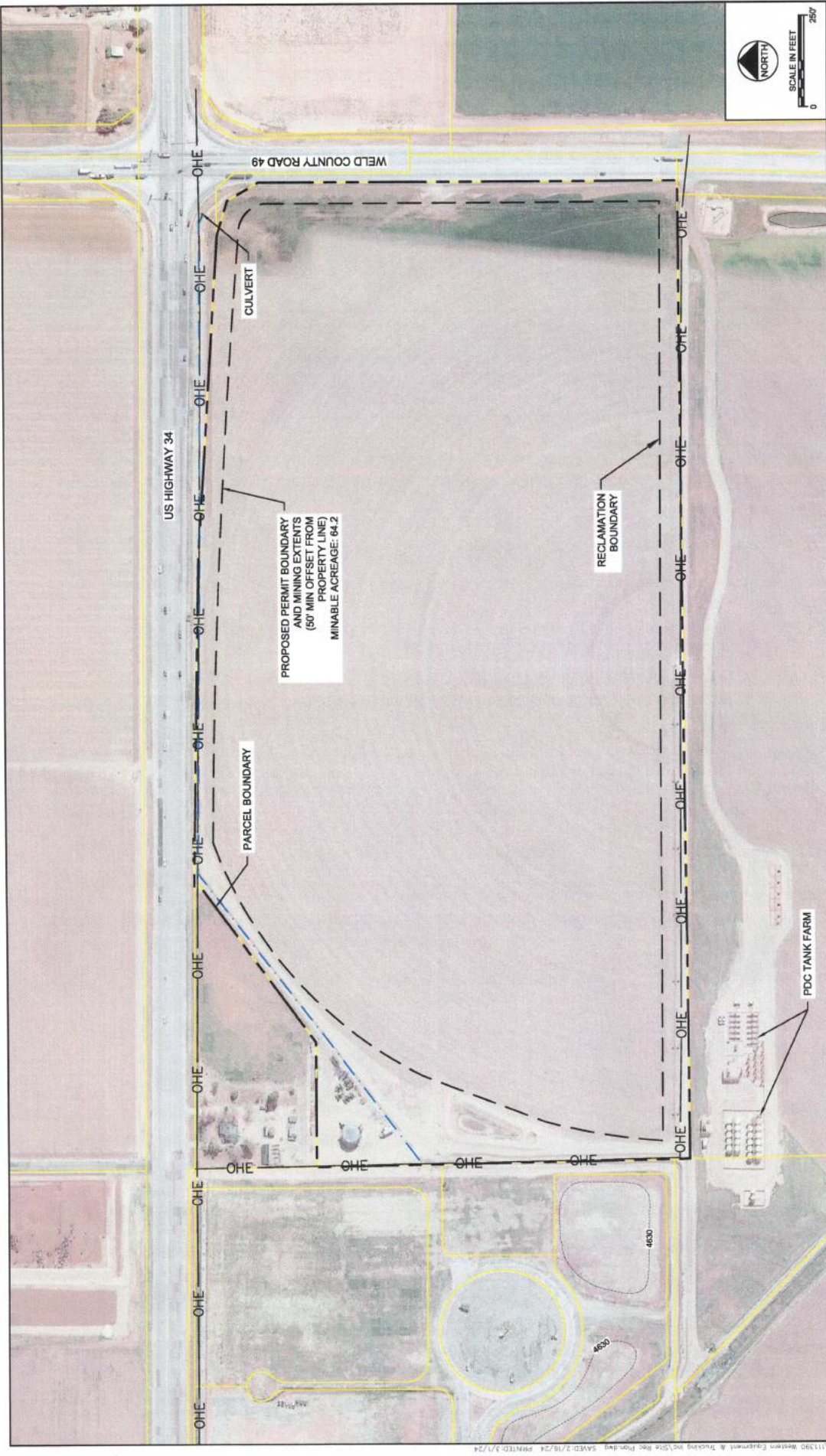
It is expected that the physical appearance of the affected land will be the same after reseeding and revegetation. There will be, at a minimum, 6 inches of topsoil left along with reseeding with buffalo grass. The topography of the site is very flat due to natural processes and farming operations. It has been determined that the elevation for the entire site is approximately 4626 feet above sea level.

2.0 PORTRAYAL OF THE PROPOSED FINAL LAND USE

The proposed final land used will mimic current use.

LIST OF ATTACHMENTS

Attachment F-1 – Exhibit F Reclamation Plan Map



Project No. 111390 February 2024

EXHIBIT F
RECLAMATION PLAN MAP
WESTERN EQUIPMENT AND TRUCKING INC.
MINE #1

- EXISTING CONTOUR
PARCEL BOUNDARY
PROPOSED PERMIT BOUNDARY
EXISTING OVERHEAD UTILITY LINE
DITCH ON NORTH SIDE OF PROPERTY

- NOTES:
- 1) IT IS EXPECTED THE OVERALL APPEARANCE OF THE SITE WILL NOT CHANGE.
 - 2) SITE TOPOGRAPHY IS UNDERSTOOD TO BE APPROXIMATELY 4,630 FEET FOR THE ENTIRE SITE.
 - 3) BUFFALO GRASS WILL BE USED TO REVEGETATE ENTIRE SITE.

Technical Memorandum

To:	Craig Sparrow	From:	Jason Andrews, P.E. Eric Road, E.I.T.
Company:	Western Equipment and Truck, Inc.	Date:	March 1, 2024
EA No.:	111390		
Re:	Exhibit G – Water Information V2 Applicant: Western Equipment and Truck, Inc. Address: 23988 U.S. 34, Kersey, CO		

1.0 INTRODUCTION

The proposed mining activities are not expected to directly affect surface or groundwater systems. A discussion of the surface water, groundwater, and water consumption is provided below.

2.0 SURFACE WATER

The proposed mining operation will remove the top 10-12 inches of topsoil. As such, this will not impact surface water flow. Surface water from storms will be addressed through the use of silt fence and waddles.

3.0 GROUNDWATER

The top 10-20 inches of topsoil will be removed at the site. During our site visit on May 30, 2023, no groundwater was observed in any of the existing irrigation ditches or agriculture ponds. Thus, groundwater is not anticipated to encountered at the site.

4.0 WATER USE

No material processing is to be completed on site. Thus, the only water use onsite will be related to water trucks for dust control. The water will be obtained from municipal water sources, specifically Central Weld County Water District. It is anticipated that the truck will be filled four times a day for a total of 8000 gallons of water applied per day. With our maximum intended schedule of 6 days a week for 50 weeks, the estimate comes to 2,400,000 gallons of annual water usage for dust control. The work schedule uses 50 weeks to anticipate holidays and winter weather that would make mining operations undesirable.



Technical Memorandum

To:	Craig Sparrow	From:	Jason Andrews, P.E. Eric Roads, E.I.T.
Company:	Western Equipment and Truck, Inc.	Date:	March 1, 2024
EA No.:	111390		
Re:	Exhibit I – Soils Information V2 Applicant: Western Equipment and Truck, Inc. Address: 23988 U.S. 34, Kersey, CO		

1.0 INTRODUCTION

The soils within the affected mine boundary area shown in Exhibit F has been characterized by the Natural Resources Conservation Service (NRCS). The information outlined in this section was obtained from the NRCS' online Web Soil Survey. Included in Exhibit I is the downloaded Web Soil Survey report from the National Cooperative Soil Survey.

(<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>)

2.0 SOIL UNITS PRESENT AT SITE

Altvan Series

The Altvan series consists of moderately deep to sand or gravelly sand, well drained soils. They formed in loamy sediments on uplands hillslopes and valet terraces. Altvan series soils comprise approximately 67% of the impacted area on shallow slopes at 1 percent.

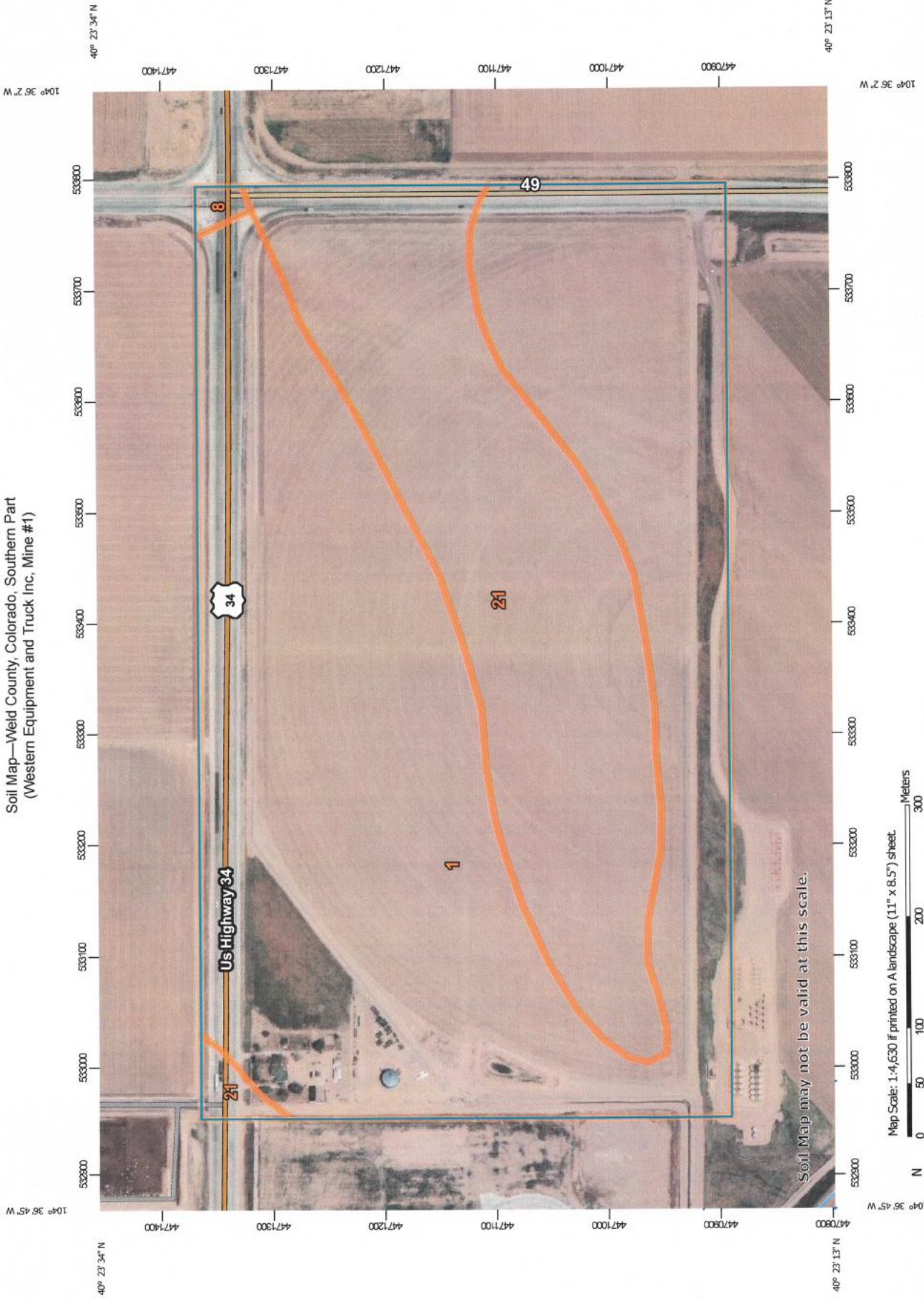
Ascalon Series

The Ascalon series consists of very deep, well drained soils that formed in moderate coarse textured calcareous material. Ascalon soils are on upland hillslopes and tableland plains. Ascalon series soils comprise approximately <1% of the impacted area on shallow slopes 0 to 1 percent.






































Dacono Series

The Dacono series consists of dep, well drained soils that formed in alluvial parent materials with some modification in the upper part by loess deposits. Dacono soils are on high terraces. Dacono series soils comprise approximately 32% of the impacted area on shallow slopes 0 to 1 percent.

Soil Map—Weld County, Colorado, Southern Part
(Western Equipment and Truck Inc, Mine #1)



MAP LEGEND

Area of Interest (AOI)		Area of Interest (AOI)	
Soils		Soil Map Unit Polygons	
		Soil Map Unit Lines	
		Soil Map Unit Points	
Special Point Features		Water Features	
		Streams and Canals	
		Transportation	
		Rails	
		Interstate Highways	
		US Routes	
		Major Roads	
		Local Roads	
		Background	
		Aerial Photography	
			
			
			
			
			
			
			
			
			

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 22, Aug 24, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 8, 2021—Jun 12, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Altvan loam, 0 to 1 percent slopes	68.9	69.4%
8	Ascalon loam, 0 to 1 percent slopes	0.4	0.4%
21	Dacono clay loam, 0 to 1 percent slopes	29.9	30.2%
Totals for Area of Interest		99.2	100.0%



Technical Memorandum

To:	Craig Sparrow	From:	Jason Andrews, P.E. Eric Roads, E.I.T.
Company:	Western Equipment and Truck, Inc.	Date:	March 1, 2024
EA No.:	111390		
Re:	Exhibit L – Reclamation Costs V2 Applicant: Western Equipment and Truck, Inc. Address: 23988 U.S. 34, Kersey, CO		

1.0 CALCULATED COSTS

At the end of mining the floor of the excavation will be level with a minimum of 6 inches of topsoil. Thus, no additional grading of the site is anticipated to be required. The reclamation costs include the purchase and placement of seed. The quote for this work is attached to this technical memorandum.

Table 1 – Summary of Reclamation Costs

Reclamation Operation	Quantity	Units	Unit Cost (\$)	Cost
Drilling and Plating	65	Ac	20	\$1,300.00
Dryland Buffalo Seed			122.20	\$7,943.00
			Total	\$9,243.00

Attachment L-1 – Reseeding quote

E Bar K LLC

27385 County Road 66

Gill, CO 80624

Chad (307) 262-6519

Emilee (303) 947-9608

ebarklandcattle@gmail.com



E Bar K

Land & Cattle

Estimate #

102

Date:

9/10/2023

Bill To:

Western Equipment & Truck

sales@wetrucks.com

Date	Description/Service	Qty	Rate	Total
9/10/2023	Kersey Farm Hwy 34 & Cr 49			
	80 Acres			
	Drilling & Plating per acre	80	\$20.00	\$1,600.00
	Dryland Buffalo Seed Grass Mix 10 lb/acre	80	\$122.20	\$9,776.00
		Total		\$11,376.00

Thank you for your business. We appreciate it!!

*All the best,
The Braunsroth Family*