

Well Name: EMERALD FEDERAL COM

Well Location: T19S / R33E / SEC 6 / SESE / 32.68305 / -103.69783

County or Parish/State: LEA / NM

Well Number: 506H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM077002

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: AVANT OPERATING LLC

Notice of Intent

Sundry ID: 2807532

Type of Submission: Notice of Intent

Date Sundry Submitted: 08/19/2024

Date proposed operation will begin: 11/26/2024

Type of Action: APD Change

Time Sundry Submitted: 03:20

Procedure Description: Avant Operating, LLC would like to make the following changes to the Emerald Federal Com 506H well (APD ID#10400084368, API# 30-025-53472). Avant acquired this APD from Legacy Reserves Operating, LP and the change of operator was approved on 8/14/2024. -Name change from Emerald Federal Com 506H to Emerald Federal Com 516H -SHL change from 350' FSL & 1250' FEL to 350' FSL & 1240' FEL. -Update dedicated acreage to 1302.98 -Updated CTB info. CTB was moved to avoid lizard habitat, revised CTB being approved with new Avant APD for Emerald Federal Com 304H (10400099668) Please see all updated attachments to reflect these changes.

NOI Attachments

Procedure Description

- Emerald_Federal_Com_516H_C_102__cert_9_25_24__20250113131127.pdf
- Emerald_Pad_2_Updated_CTB___SUPO_20240819151909.pdf
- Emerald_Federal_Com_516H_Updated_Drilling_Info_20240819151840.pdf

Received by OCD: 1/21/2025 1:03:36 PM

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Well Number: 506H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM077002	Unit or CA Name:	Unit or CA Number:
US Well Number:	Operator: AVANT OPERATING LLC	

Conditions of Approval

Additional

6_19_33_P_Sundry_ID_2807532_Emerald_Federal_Com_506H_20250121100035.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: MEGHAN TWELE	Signed on: JAN 13, 2025 01:13 PM
Name: AVANT OPERATING LLC	
Title: Contract Regulatory Analyst	
Street Address: 1515 WYNKOOP ST SUITE 700	
City: DENVER	State: CO
Phone: (720) 339-6880	
Email address: MTWELE@OUTLOOK.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 01/21/2025
Signature: Chris Walls	

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No.
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☐ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)		
	Title	
Signature	Date	

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: SESE / 350 FSL / 1250 FEL / TWSP: 19S / RANGE: 33E / SECTION: 6 / LAT: 32.68305 / LONG: -103.69783 (TVD: 0 feet, MD: 0 feet)

PPP: SESE / 100 FSL / 330 FEL / TWSP: 19S / RANGE: 33E / SECTION: 6 / LAT: 32.682361 / LONG: -103.694841 (TVD: 9200 feet, MD: 9632 feet)

BHL: NENE / 100 FNL / 330 FEL / TWSP: 18S / RANGE: 33E / SECTION: 31 / LAT: 32.710896 / LONG: -103.694862 (TVD: 9200 feet, MD: 20014 feet)

CONFIDENTIAL

6-19-33-P Sundry ID 2807532 Emerald Federal Com 506H Lea NM077002 LEGACY RESERVES OPERATING LP 13-22g 2-27-2024 LV

Emerald Federal Com 506H

13 3/8		surface csg in a		17 1/2		inch hole.		Design Factors				Surface		
Segment	#/ft	Grade		Coupling		Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	54.50	j 55		ltc		6.29	1.69	0.98	1,500	4	1.66	3.32	81,750	
"B"				ltc					0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,263							Tail Cmt	does not	circ to sfc.		Totals:	1,500	81,750	
Comparison of Proposed to Minimum Required Cement Volumes														
Hole	Annular	1 Stage		1 Stage		Min	1 Stage	Drilling	Calc				Min Dist	
Size	Volume	Cmt Sx		CuFt Cmt		Cu Ft	% Excess	Mud Wt	MASP	BOPE			Hole-Cplg	
17 1/2	0.6946	865		1521		1042	46	8.60	1654	2M			2.06	
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK.														
Site plot (pipe racks S or E) as per O.D. 1.31/1.31, not found														

9 5/8		casing inside the		13 3/8		Design Factors				Int 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00		j 55	ltc	2.48	0.91	0.84	5,281	1	1.54	1.55	211,240
"B"								0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 474								Totals:	5,281			211,240
The cement volume(s) are intended to achieve a top of 0								ft from surface or a 1500		overlap.		
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
12 1/4	0.3132	1270	2246	1728	30	10.30	2561	3M				0.81
r D V Tool(s):								sum of sx	Σ CuFt	Σ%excess		
t by stage % :								1270	2246	30		
Class 'C' tail cmt yld > 1.35												
Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.75, b, c, d All > 0.70, OK.												

5 1/2		casing inside the		9 5/8		Design Factors				Prod 1			
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	20.00		p 110	gbcd	3.29	2.36	2.69	20,029	3	4.94	4.33	400,580	
"B"								0				0	
"C"								0				0	
"D"								0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,141								Totals:	20,029				400,580
The cement volume(s) are intended to achieve a top of								5081	ft from surface or a		200	overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg		
8 3/4	0.2526	3555	6179	3777	64	9.30					1.23		
Class 'C' tail cmt yld > 1.35													

#N/A											
0	5 1/2			Design Factors				<Choose Casing>			
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"			0.00				0				0
"B"			0.00				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	0			0
Cmt vol calc below includes this csg, TOC intended							#N/A	ft from surface or a	#N/A		overlap.
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg
0		#N/A	#N/A	0	#N/A						
#N/A Capitan Reef est top XXXX.											

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION		Revised July 9, 2024	
	Submittal Type:	☒ Initial Submittal		
		☐ Amended Report		
		☐ As Drilled		

WELL LOCATION INFORMATION

API Number 30-025-53472	Pool Code 13160	Pool Name CORBIN; BONE SPRING, SOUTH
Property Code 335608	Property Name EMERALD FEDERAL COM	Well Number 516H
OGRID No. 330396	Operator Name AVANT OPERATING, LLC	Ground Level Elevation 3683.8
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	6	19 S	33 E		350 FSL	1240 FEL	32.6830505° N	103.6977987° W	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	31	18 S	33 E		100 FNL	330 FEL	32.7108957° N	103.6948617° W	LEA

Dedicated Acres 1280 Ac. 1302.98	Infill or Defining Well Infill	Defining Well API	Overlapping Spacing Unit (Y/N) No	Consolidation Code
Order Numbers. R-23267	Well setbacks are under Common Ownership: ☐ Yes ☒ No			

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	6	19 S	33 E		50 FSL	330 FEL	32.6822239° N	103.6948415° W	LEA

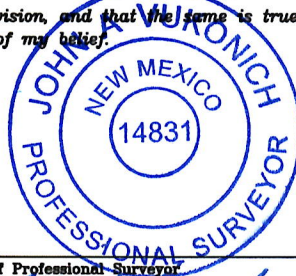
First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	6	19 S	33 E		100 FSL	330 FEL	32.6823614° N	103.6948414° W	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	31	18 S	33 E		100 FNL	330 FEL	32.7108957° N	103.6948617° W	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation:
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OPERATOR CERTIFICATIONS I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.		SURVEYOR CERTIFICATIONS I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
Signature _____ Date 12/30/2024 Printed Name Meghan Twele E-mail Address mtwele@outlook.com		 Signature and Seal of Professional Surveyor _____ Certificate Number 14831 Date of Survey 12/20/23 7/25/2024	

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

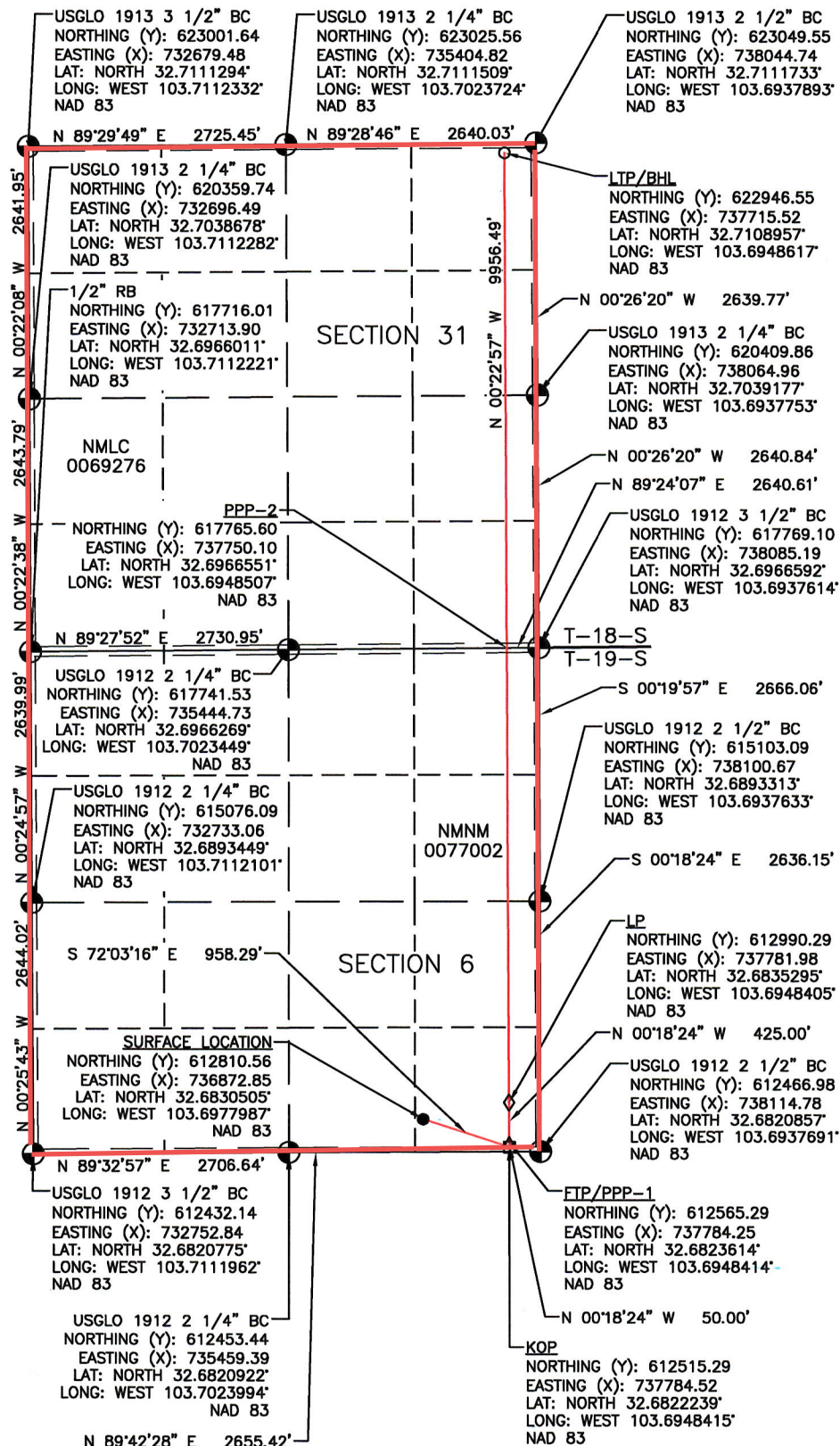
Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

Plat Revised: 9/20/24

LEGEND:

- = SURFACE LOCATION (SHL)
- = KICK OFF POINT (KOP)
- △ = FTP/PPP-1
- ◇ = LANDING POINT (LP)
- = LTP/BHL
- ⊙ = FOUND MONUMENT

FOOTAGES		
SHL	350' FSL	1240' FEL
KOP	50' FSL	330' FEL
FTP/PPP-1	100' FSL	330' FEL
LP	525' FSL	330' FEL
PPP-2	0' FNL	335' FEL
LTP/BHL	100' FNL	330' FEL



Avant Operating, LLC
Emerald Federal Com pad 2
Pad center: 400' FSL & 1260' FEL 6-19S-33e
Lea County, NM

SURFACE PLAN PAGE 1

This surface use plan covers the following 10 wells on an 8.594-acre pad. Two wells (503H & 504H) were approved for a smaller pad (4.574 acres) for Legacy. Avant has now acquired Legacy's active and pending wells.

304H	503H	604H
305H	514H	605H
306H	515H	606H
	516H	

1. ROAD DIRECTIONS & DESCRIPTIONS (See MAPS 1 – 5AB)

From the junction of US 285 and US 62/180 in Carlsbad...
Go East 26.6 miles on US 62/180 to NM 243 (≈Mile Post 61.6 on US 62/180)
Then turn left and go North and NE 3.7 miles on paved NM 243
Then turn left and go North 6.1 miles on paved County Road 126A (Maljamar)
Then turn right and go ENE 5.2 miles on a caliche road to a P&A well
Then turn left and go North 3/4 mile on a caliche road
Then turn right and go NE ½ mile on a caliche road
Then turn left and go North 0.6 mile on a caliche road
Then turn right and go East 286.97' cross-country to the west side of the pad

An 815.19' road will be built west to the proposed CTB.

Non-NMDOT and non-county roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning cattle guards and culverts. This will be done at least once a year, and more often as needed.

2. ROAD TO BE BUILT OR UPGRADED (See MAPS 4 & 5AB)

The 1102.16' of new resource roads will be crowned and ditched, have a $\leq 24'$ wide driving surface, and be surfaced with caliche. Pipelines that are crossed will

Avant Operating, LLC
Emerald Federal Com pad 2
Pad center: 400' FSL & 1260' FEL 6-19S-33e
Lea County, NM

SURFACE PLAN PAGE 2

be padded. Maximum disturbed width = 30'. Maximum grade = 1%. Maximum cut or fill = 3'. No culvert, cattle guard, or vehicle turn out is needed. Upgrading will consist of filling potholes with caliche as needed.

3. EXISTING WELLS (See MAP 6)

Oil, gas, water, and P & A wells are within 1-mile radii. No SWD or injection well is within a mile.

4. PROPOSED PRODUCTION FACILITIES (See MAPS 7ABCD)

A 300' x 500' central tank battery (CTB) will be built northwest of the well pad. Buried pipelines (flow and gas) will run 2104.95' parallel to roads to the CTB. For each well on the pad, there will be one 4" HDPE flowline, one 4" OD HDPE gas lift feed line, and one 3" OD steel gas lift discharge line. (Central tank battery has moved from its Legacy location to avoid lizard habitat.)

Avant will build a 5239.36' long power line from the pad north and west. Avant will build a 55.04' long power line from the CTB north. Total power lines length = 5294.40'. All power lines 3-phase and raptor safe.

5. WATER SUPPLY (See MAP 8)

Water will be trucked from the existing JR (aka, Gregory Rockhouse Ranch) Water Station on BLM (NMNM-131541) in NWNW 20-18s-32e.

6. CONSTRUCTION MATERIALS & METHODS (See MAPS 9ABCD & 10)

NM One Call (811) will be called before construction starts. Top ≈6" of soil and brush will be stockpiled north and south of the well pad and north of the CTB.

Avant Operating, LLC
Emerald Federal Com pad 2
Pad center: 400' FSL & 1260' FEL 6-19S-33e
Lea County, NM

SURFACE PLAN PAGE 3

Latter topsoil will be piled no higher than 3 feet and seeded. V-doors will face east. Well pad and CTB will be bermed. Closed loop mud system will be used. Caliche will be hauled from the existing Caviness pit on private land in SWNE 13-19s-31e.

7. WASTE DISPOSAL

All trash will be placed in portable trash cages and hauled to the Lea County landfill. There will be no trash burning. Mud tank contents (drill cuttings, mud, salts, and other chemicals) will be hauled to R360's state approved (NM-01-0006) Halfway landfill on US 62/180. Human waste will be disposed of in chemical toilets and hauled to the Hobbs wastewater treatment plant.

8. ANCILLARY FACILITIES

There will be no airstrip or camp. Camper trailers will be on location for the company man, tool pusher, mud logger, et al.

9. WELL SITE LAYOUT (See MAP 9)

Also see Rig Layout diagram for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

10. RECLAMATION (See MAP 11ABCD)

A 100' wide swath on the north side of the well pad and 50' wide swath on the south side of the well pad will be interim reclaimed. Once the last well is plugged, then the remainder of the pad, CTB, and new roads will be reclaimed within 6 months of plugging and the power lines will be removed. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread

Avant Operating, LLC
Emerald Federal Com pad 2
Pad center: 400' FSL & 1260' FEL 6-19S-33e
Lea County, NM

SURFACE PLAN PAGE 4

over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with BLM requirements. New roads will be blocked. Noxious weeds will be controlled. Land use will be:

30' x 1102.16' roads = 0.76 acres
520' x 720' well pad = 8.59 acres
300' x 500' CTB = 3.44 acres
30' x 2104.95' pipelines = 1.45 acres
+ 30' x 5294.40' power lines = 3.65 acres
17.89 acres short term
- 30' x 2104.95' pipelines = 1.45 acres
- 30' x 5294.40' power lines = 3.65 acres
- 50' x 520' well pad interim reclamation = 0.60 acres
- 100' x 520' well pad interim reclamation = 1.19 acres
11.00 acres long term

11. SURFACE OWNER

All construction will be on BLM. BLM office is the Carlsbad Field Office, 620 E. Greene, Carlsbad NM 88220. Phone is 575 234-5972.

12. OTHER INFORMATION

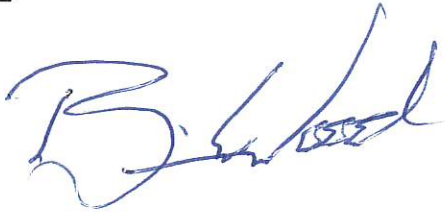
Legacy on-sited the project July 20, 2021, with Caroline Kaufman of BLM. Avant on-sited the expanded project May 1, 2024, with BLM's Jeff Robertson and Cassandra Aguillard. J. T. Rein Archaeology, LLC inspected the well pads and filed reports NMCRIS-154652 on January 9, 2024, and NMCRIS-155527 on May 13, 2024. He inspected related infrastructure and will file a report for the post-Legacy modifications.

Avant Operating, LLC
Emerald Federal Com pad 2
Pad center: 400' FSL & 1260' FEL 6-19S-33e
Lea County, NM

SURFACE PLAN PAGE 5

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 16th day of June 2024.

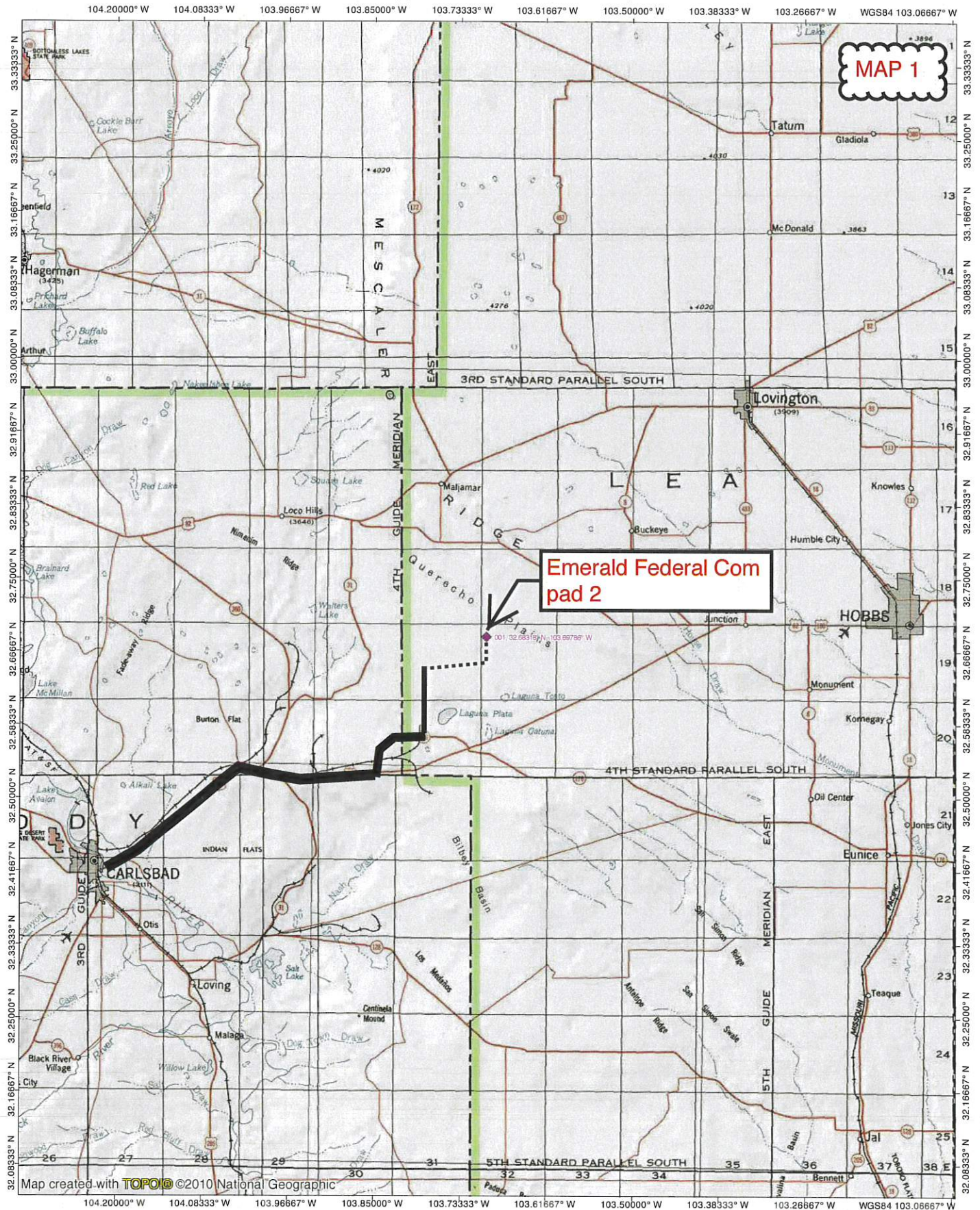


Brian Wood, Consultant
Permits West, Inc.
37 Verano Loop, Santa Fe, NM 87508
(505) 466-8120 FAX: (505) 466-9682 Cellular: (505) 699-2276

Field representative will be:

John Harper, Senior Vice President Assets and Exploration
Avant Operating, LLC
1515 Wynkoop, Suite 700, Denver CO 80202
(720) 746-5045

TOPOI map printed on 06/16/24 from "Untitled.tpo"

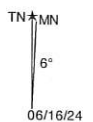
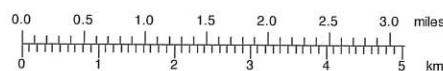
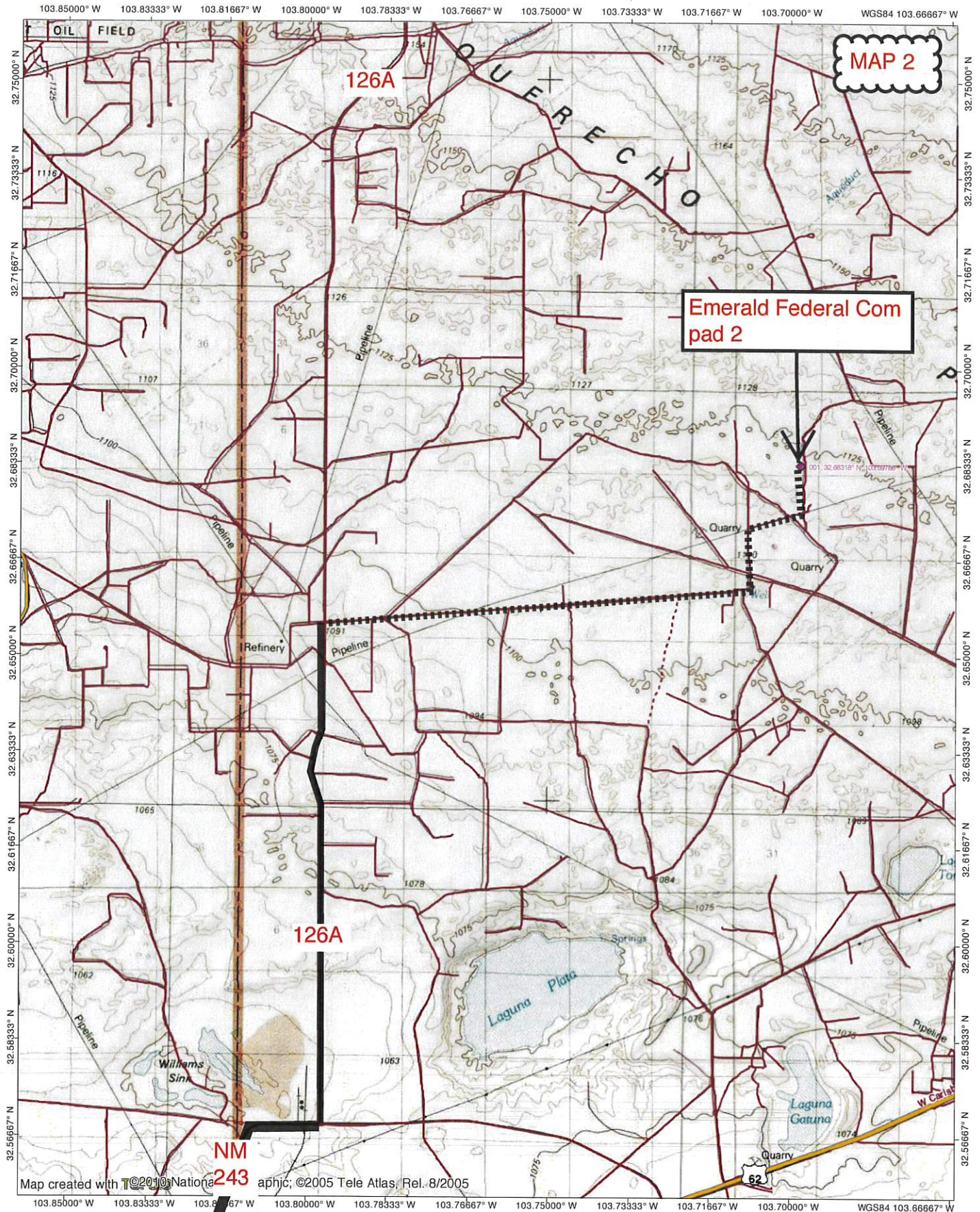


TN MN

6°

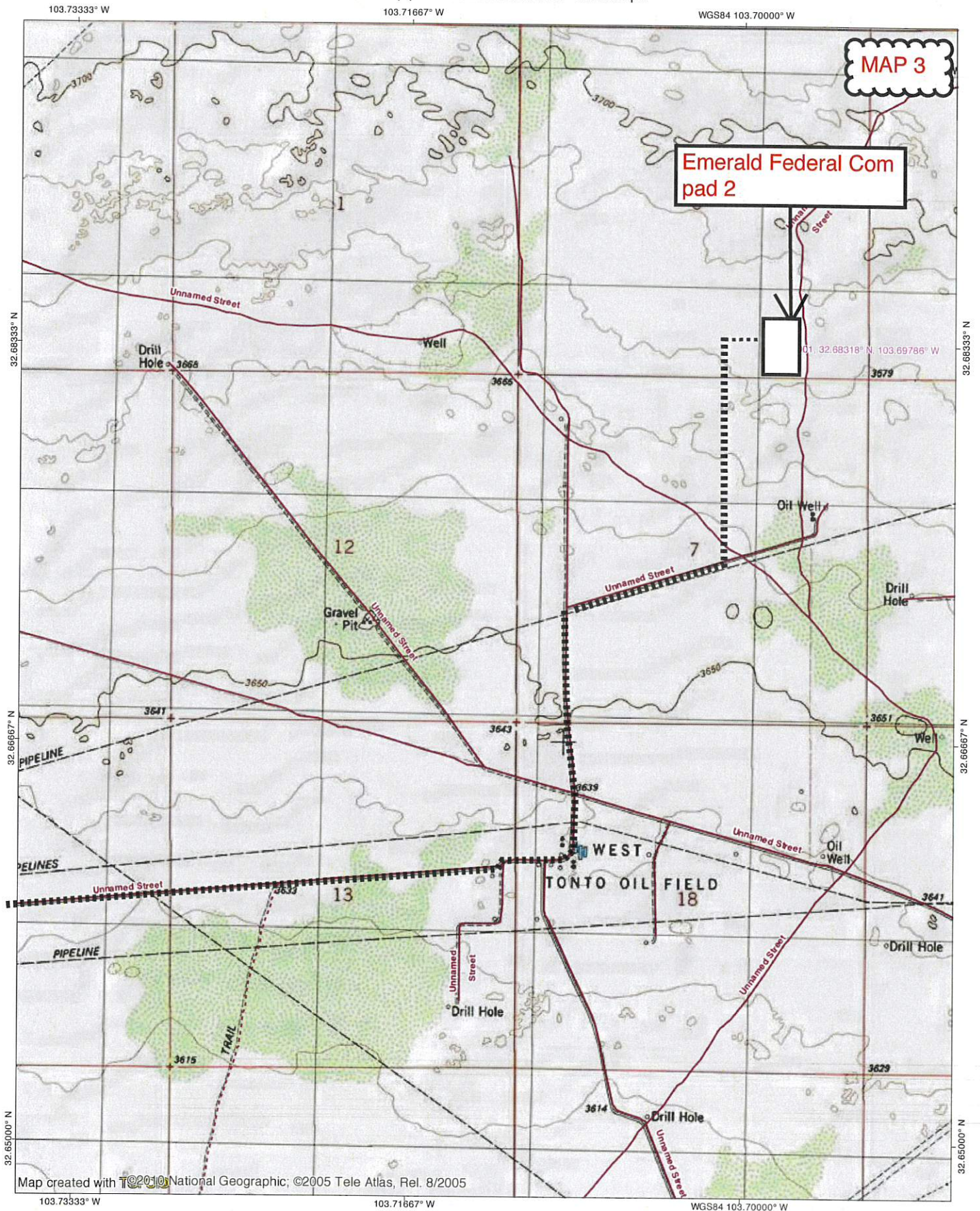
06/16/24

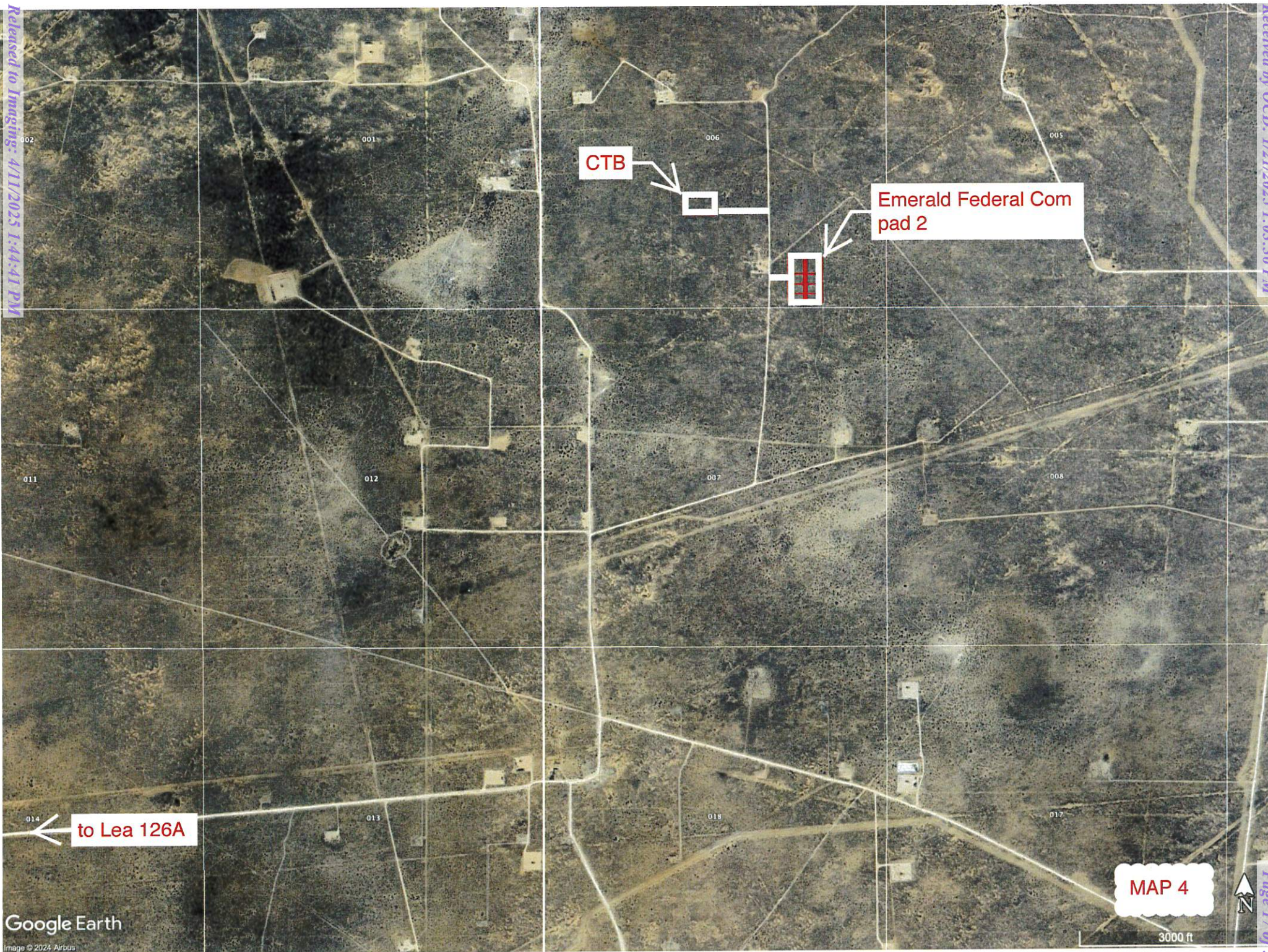
TOPO! map printed on 06/16/24 from "Untitled.tpo"



06/16/24

TOPO! map printed on 06/16/24 from "Untitled.tpo"

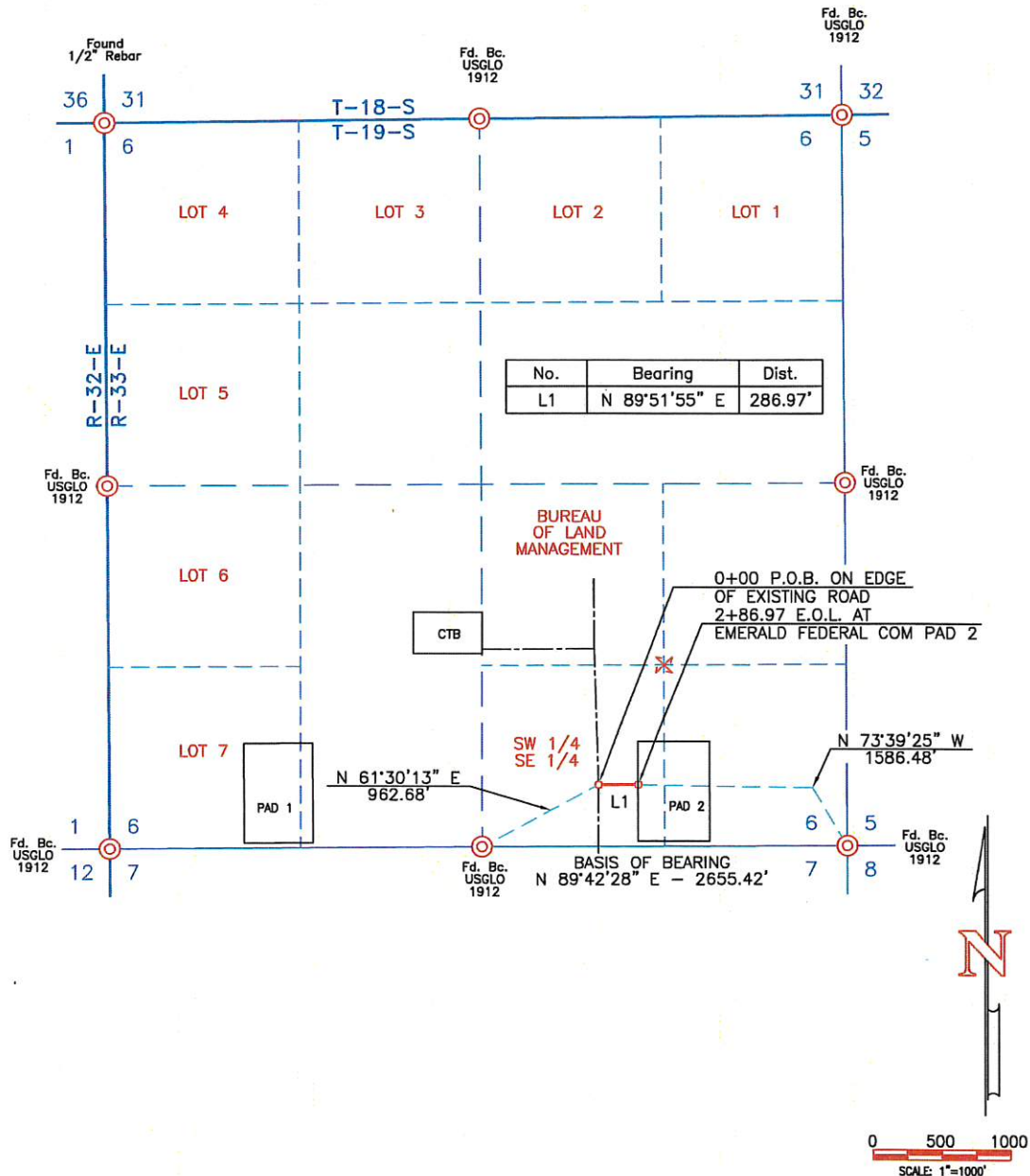




AVANT OPERATING, LLC

EMERALD FEDERAL COM PAD 2 ACCESS ROAD
SW 1/4 SE 1/4 OF SEC. 6, T-19-S, R-33-E, N.M.P.M.,
LEA COUNTY, N.M.

MAP 5A



NOTES:

1. BASIS OF BEARING: MONUMENTED SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 6, T-19-S, R-33-E, N.M.P.M., LEA COUNTY, NEW MEXICO. BEARS: N 89°42'28\" E - 2655.42'
2. ALL BEARINGS AND DISTANCES SHOWN ARE BASED UPON THE NEW MEXICO COORDINATE SYSTEM, EAST ZONE, NAD 83, IN U.S. SURVEY FEET.

I, JOHN A. VUKONICH, NEW MEXICO PROFESSIONAL SURVEYOR NO. 14831, DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT.

JOHN A. VUKONICH P.E./P.S. N.M.P.S. #14831

DATE

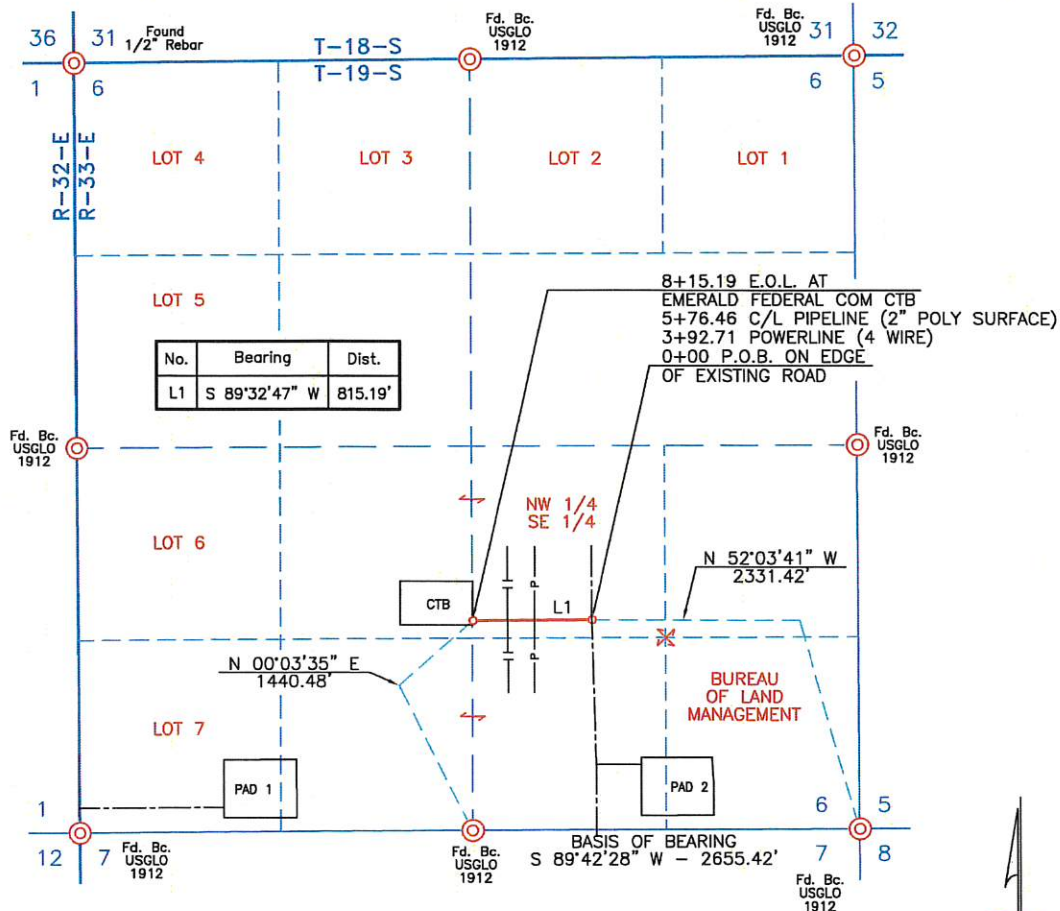
P.O.B. = POINT OF BEGINNING
E.O.L. = END OF LINE

OWNER	STATION	FEET/RODS/ACRES (30' R.O.W.)
BUREAU OF LAND MANAGEMENT	0+00 TO 2+86.97	286.97 / 17.392 / 0.198

		P.O. Box 3651 Farmington, NM 87499 Office: (505) 334-0408	
DWG. No. : 11847-A01		Revision: 2	
Drawn by: A.A.D.	Date Drawn: 2/12/24	Rev. Date: 5/14/24	
Surveyed: 2/7-5/12/24	App by: J.A.V.	Sheet: 1	

AVANT OPERATING, LLC
EMERALD FEDERAL COM CTB ACCESS ROAD
 NW 1/4 SE 1/4 OF SEC. 6, T-19-S, R-33-E, N.M.P.M.,
 LEA COUNTY, N.M.

MAP 5B



0 500 1000
 SCALE: 1"=1000'

NOTES:

1. BASIS OF BEARING: MONUMENTED SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 6, T-19-S, R-33-E, N.M.P.M., LEA COUNTY, NEW MEXICO. BEARS: S 89°42'28" W - 2655.42'
2. ALL BEARINGS AND DISTANCES SHOWN ARE BASED UPON THE NEW MEXICO COORDINATE SYSTEM, EAST ZONE, NAD 83, IN U.S. SURVEY FEET.

I, JOHN A. VUKONICH, NEW MEXICO PROFESSIONAL SURVEYOR NO. 14831, DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT.

JOHN A. VUKONICH P.E./P.S. N.M.P.S. #14831

DATE

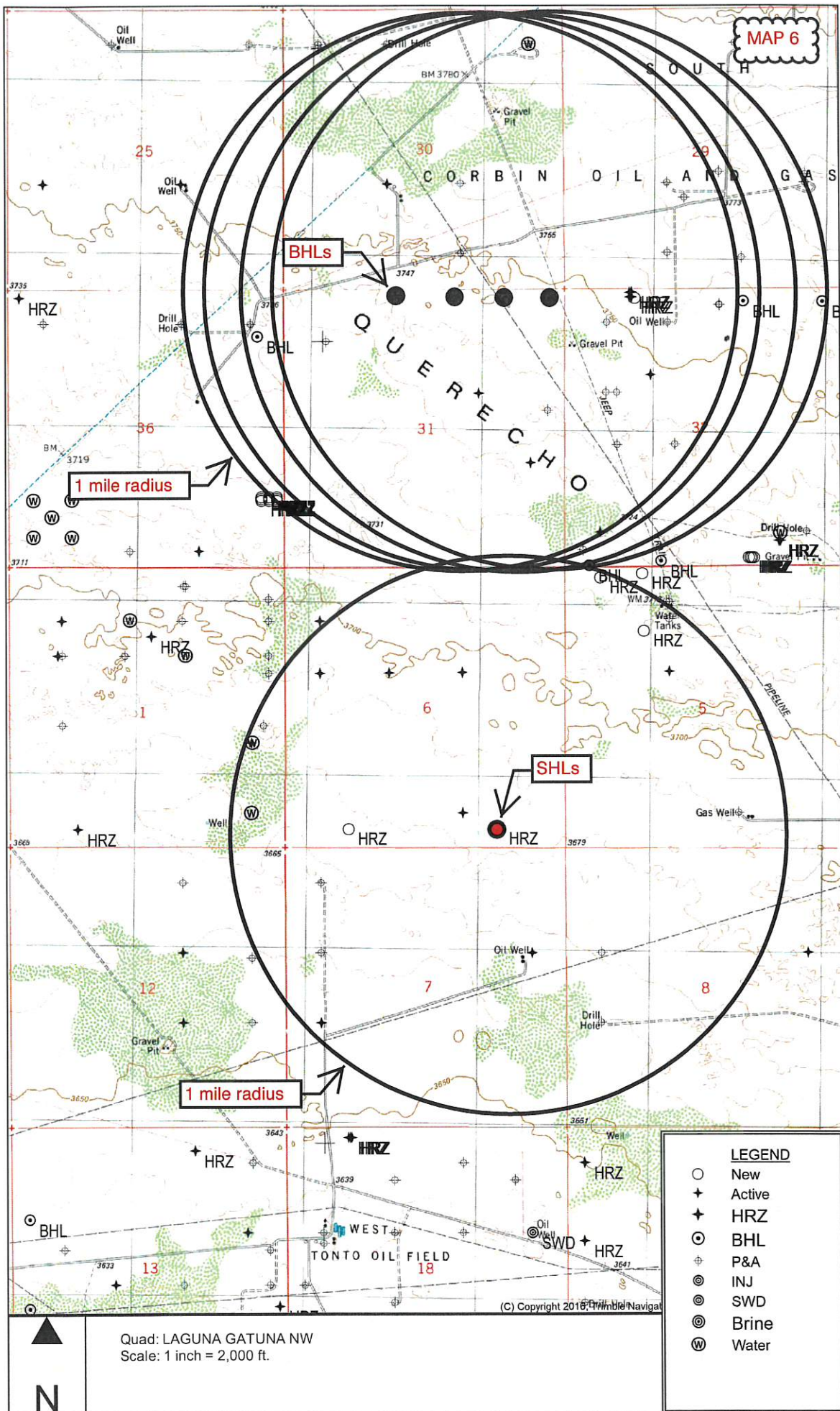
P.O.B. = POINT OF BEGINNING
 E.O.L. = END OF LINE

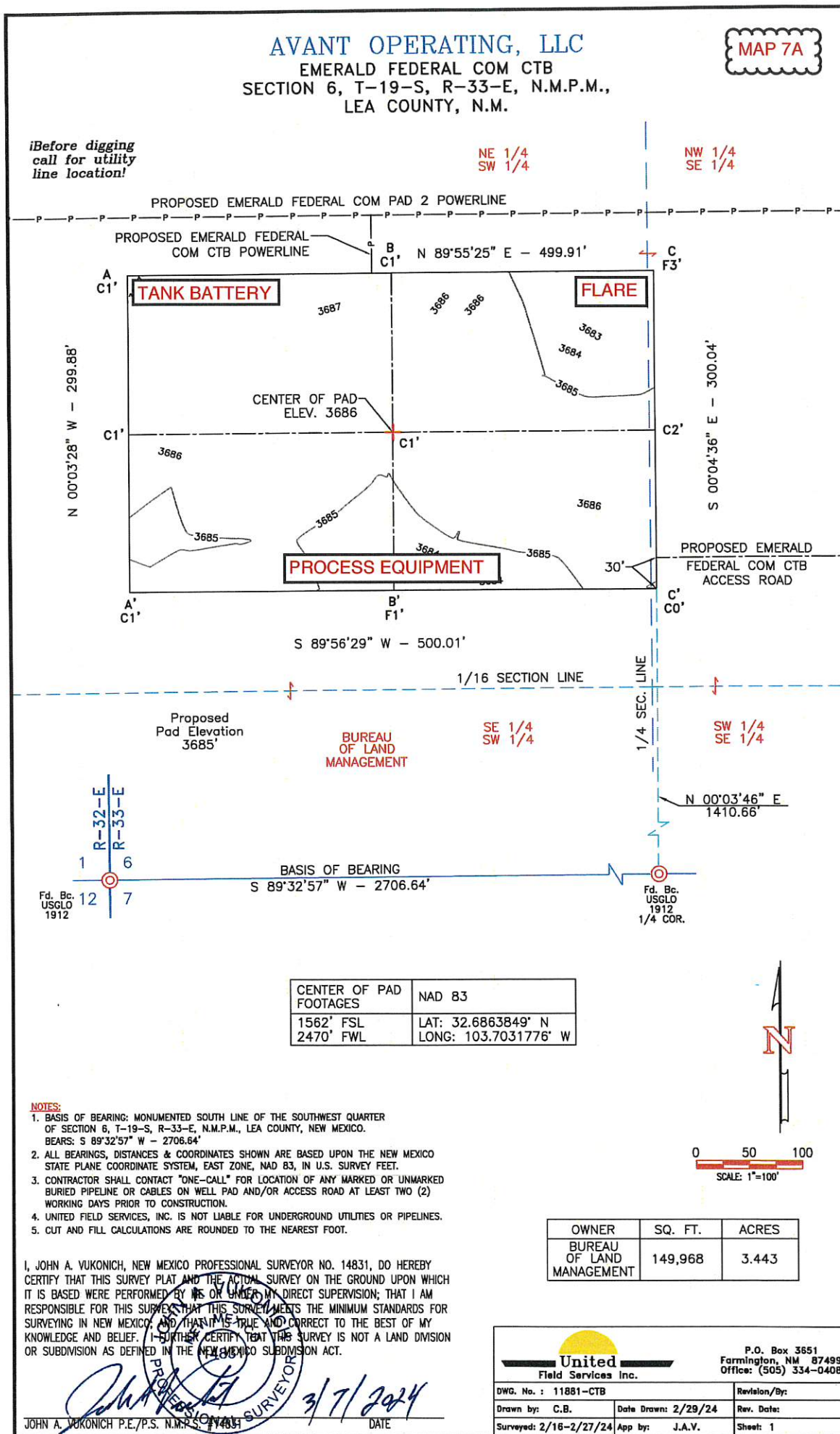
OWNER	STATION	FEET/RODS/ACRES (30' R.O.W.)
BUREAU OF LAND MANAGEMENT	0+00 TO 8+15.19	815.19 / 49.405 / 0.561

United
 Field Services Inc.

P.O. Box 3651
 Farmington, NM 87499
 Office: (505) 334-0408

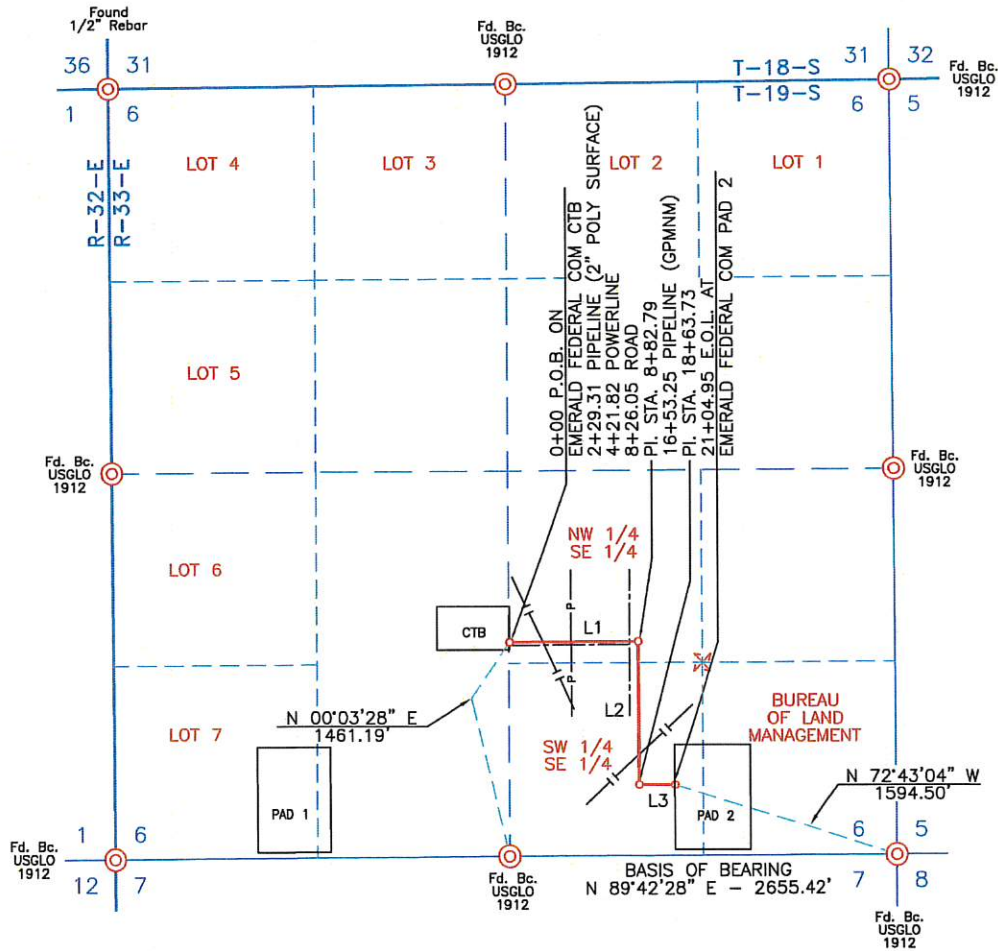
DWG. No. : 11881-A01	Revision: 1
Drawn by: C.B.	Date Drawn: 02/23/24
Surveyed: 02/16/24	App by: J.A.V.
	Rev. Date:
	Sheet: 1





AVANT OPERATING, LLC
EMERALD FEDERAL COM CTB TO PAD 2 PIPELINES
 W 1/2 SE 1/4 OF SEC. 6, T-19-S, R-33-E, N.M.P.M.,
 LEA COUNTY, N.M.

MAP 7B



No.	Bearing	Dist.
L1	N 89°38'30" E	882.79'
L2	S 00°25'58" E	980.94'
L3	N 89°39'39" E	241.22'

0 500 1000
 SCALE: 1"=1000'

NOTES:

1. BASIS OF BEARING: MONUMENTED SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 6, T-19-S, R-33-E, N.M.P.M., LEA COUNTY, NEW MEXICO. BEARS: N 89°42'28" E - 2655.42'
2. ALL BEARINGS AND DISTANCES SHOWN ARE BASED UPON THE NEW MEXICO COORDINATE SYSTEM, EAST ZONE, NAD 83, IN U.S. SURVEY FEET.

I, JOHN A. VUKONICH, NEW MEXICO PROFESSIONAL SURVEYOR NO. 14831, DO HEREBY CERTIFY THAT THIS SURVEY PLAN AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT.

JOHN A. VUKONICH P.E./P.S. N.M.P.S. #14831

DATE

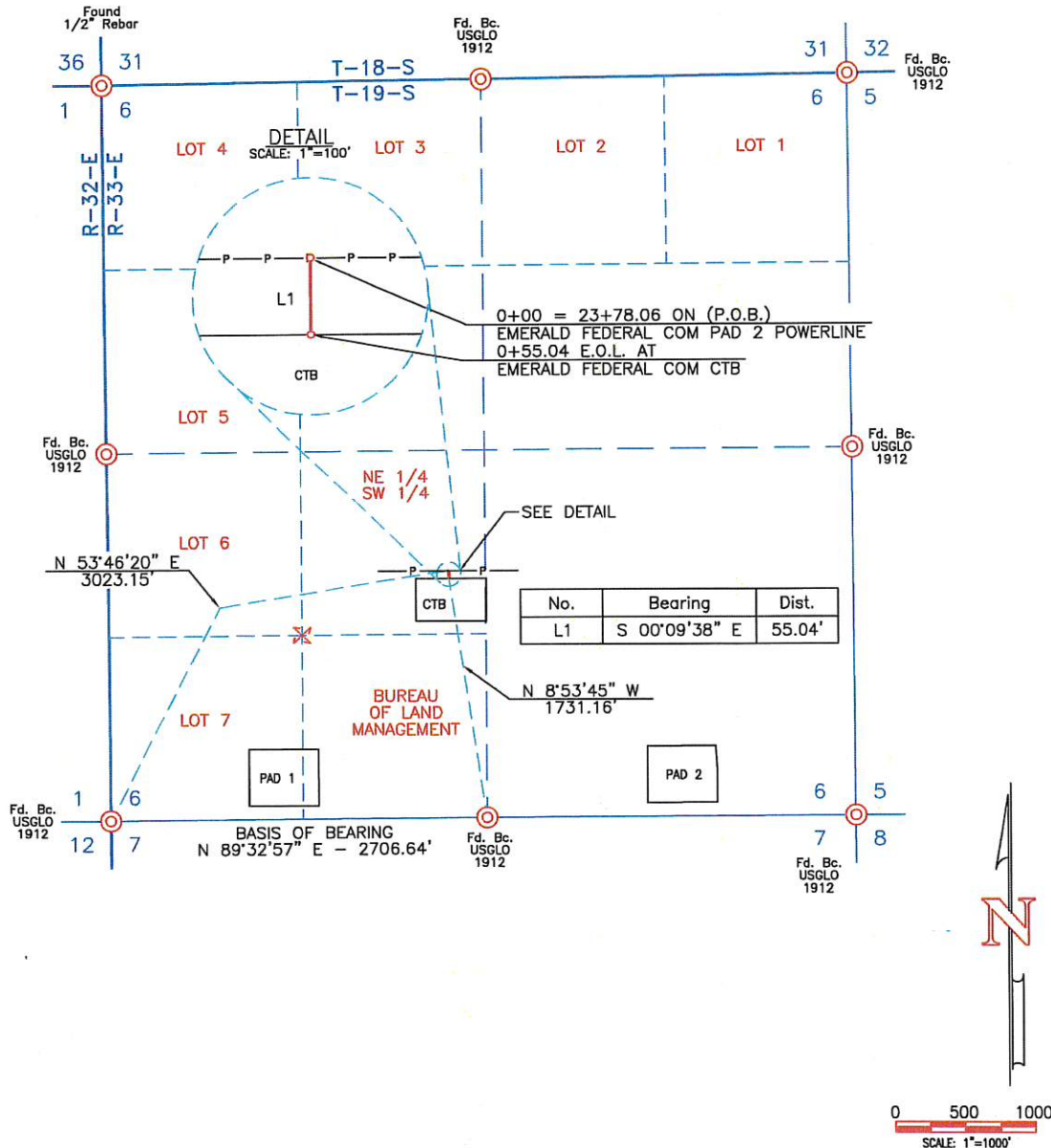
P.O.B. = POINT OF BEGINNING
 E.O.L. = END OF LINE

OWNER	STATION	FEET/RODS/ACRES (30' R.O.W.)
BUREAU OF LAND MANAGEMENT	0+00 TO 21+04.95	2104.95 / 127.573 / 1.450

		P.O. Box 3651 Farmington, NM 87499 Office: (505) 334-0408
DWG. No. : 11847-P01	Revised: 2	
Drawn by: A.A.D.	Date Drawn: 3/14/24	Rev. Date: 5/14/24
Surveyed: 3/7-5/12/24	App by: J.A.V.	Sheet: 1

AVANT OPERATING, LLC
EMERALD FEDERAL COM CTB POWERLINE
 NE 1/4 SW 1/4 OF SEC. 6, T-19-S, R-33-E, N.M.P.M.,
 LEA COUNTY, N.M.

MAP 7C

**NOTES:**

1. BASIS OF BEARING: MONUMENTED SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 6, T-19-S, R-33-E, N.M.P.M., LEA COUNTY, NEW MEXICO.
 BEARS: N 89°32'47" E - 2706.64'
2. ALL BEARINGS AND DISTANCES SHOWN ARE BASED UPON THE NEW MEXICO COORDINATE SYSTEM, EAST ZONE, NAD 83, IN U.S. SURVEY FEET.

I, JOHN A. VUKONICH, NEW MEXICO PROFESSIONAL SURVEYOR NO. 14831, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT.

JOHN A. VUKONICH P.E./P.S. N14831
 DATE 3/7/2024

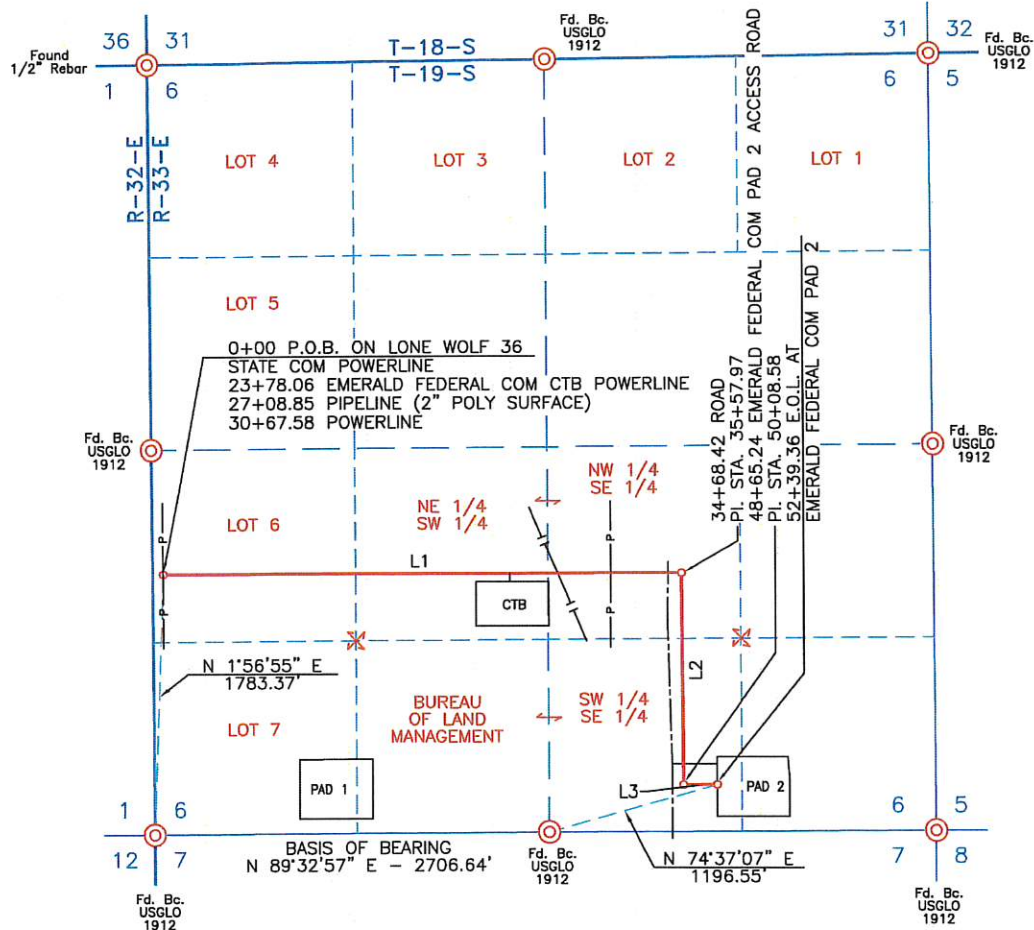
P.O.B. = POINT OF BEGINNING
 E.O.L. = END OF LINE

OWNER	STATION	FEET/RODS/ACRES (30' R.O.W.)
BUREAU OF LAND MANAGEMENT	0+00 TO 0+55.04	55.04 / 3.336 / 0.038

		P.O. Box 3651 Farmington, NM 87499 Office: (505) 334-0408
DWG. No. : 11881-PWR-01	Revisions: 1	
Drawn by: A.A.D.	Date Drawn: 02/28/24	Rev. Date:
Surveyed: 02/27/24	App by: J.A.V.	Sheet: 1

AVANT OPERATING, LLC
EMERALD FEDERAL COM PAD 2 POWERLINE
 LOT 6, NE 1/4 SW 1/4, W 1/2 SE 1/4 OF SEC. 6,
 T-19-S, R-33-E, N.M.P.M.,
 LEA COUNTY, N.M.

MAP 7D



No.	Bearing	Dist.
L1	N 89°54'31" E	3557.97'
L2	S 00°25'45" E	1450.61'
L3	N 89°41'35" E	230.78'

0 500 1000
 SCALE: 1"=1000'

NOTES:

1. BASIS OF BEARING: MONUMENTED SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 6, T-19-S, R-33-E, N.M.P.M., LEA COUNTY, NEW MEXICO.
 BEARS: N 89°32'57" E - 2706.64'
2. ALL BEARINGS AND DISTANCES SHOWN ARE BASED UPON THE NEW MEXICO COORDINATE SYSTEM, EAST ZONE, NAD 83, IN U.S. SURVEY FEET.

I, JOHN A. VUKONICH, NEW MEXICO PROFESSIONAL SURVEYOR NO. 14831, DO HEREBY CERTIFY THAT THIS SURVEY PLAN AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. FURTHER, I CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT.

JOHN A. VUKONICH P.E./P.S. N.M.P.S. #14831

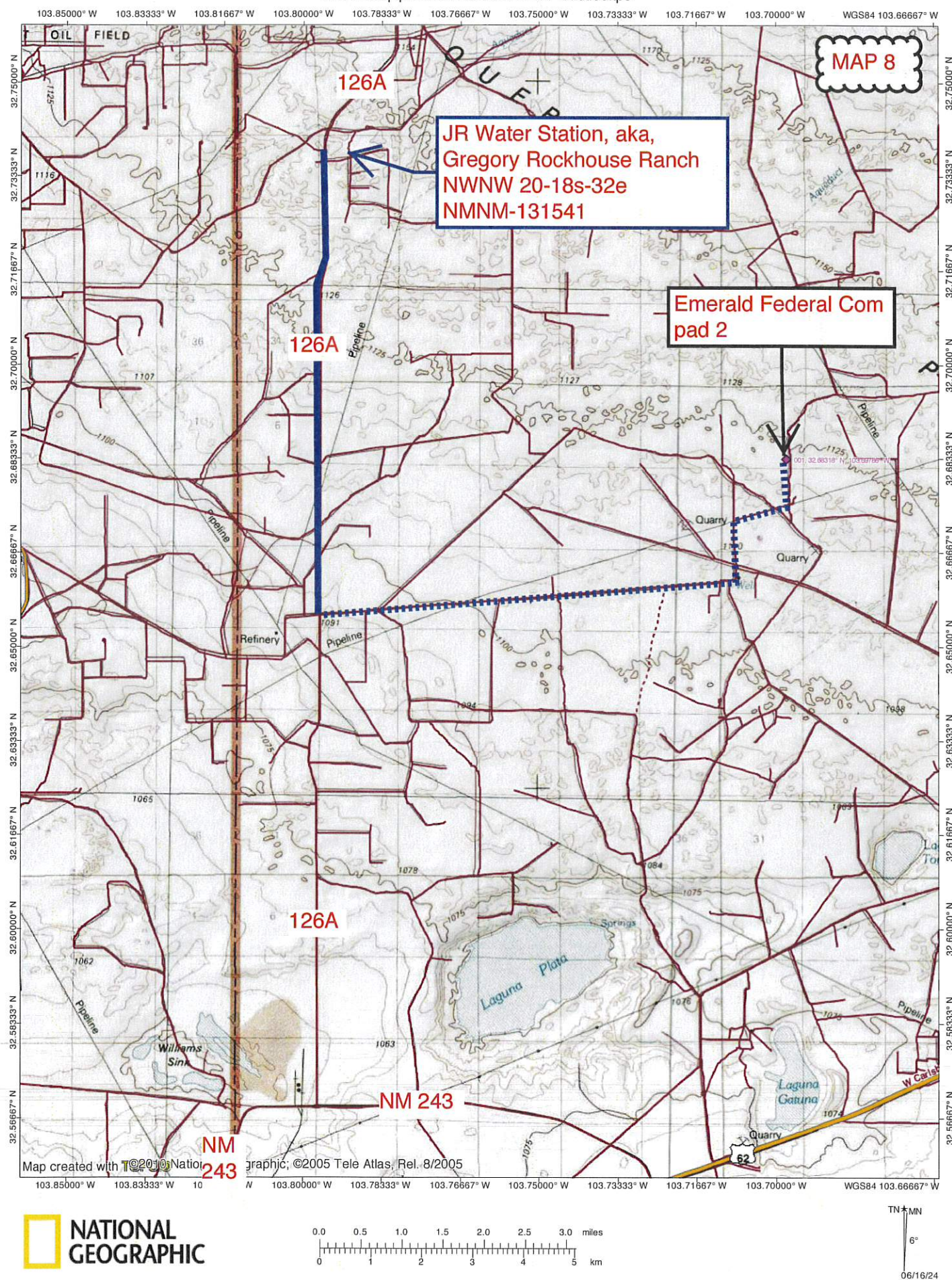
DATE 3/8/2024

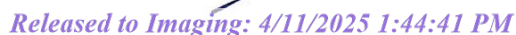
P.O.B. = POINT OF BEGINNING
 E.O.L. = END OF LINE

OWNER	STATION	FEET/RODS/ACRES (30' R.O.W.)
BUREAU OF LAND MANAGEMENT	0+00 TO 52+39.36	5239.36 / 317.537 / 3.608

		P.O. Box 3651 Farmington, NM 87499 Office: (505) 334-0408
DWG. No. : 11847-PWR-01	Revision: 1	
Drawn by: A.A.D.	Date Drawn: 02/28/24	Rev. Date:
Surveyed: 02/27/24	App by: J.A.V.	Sheet: 1

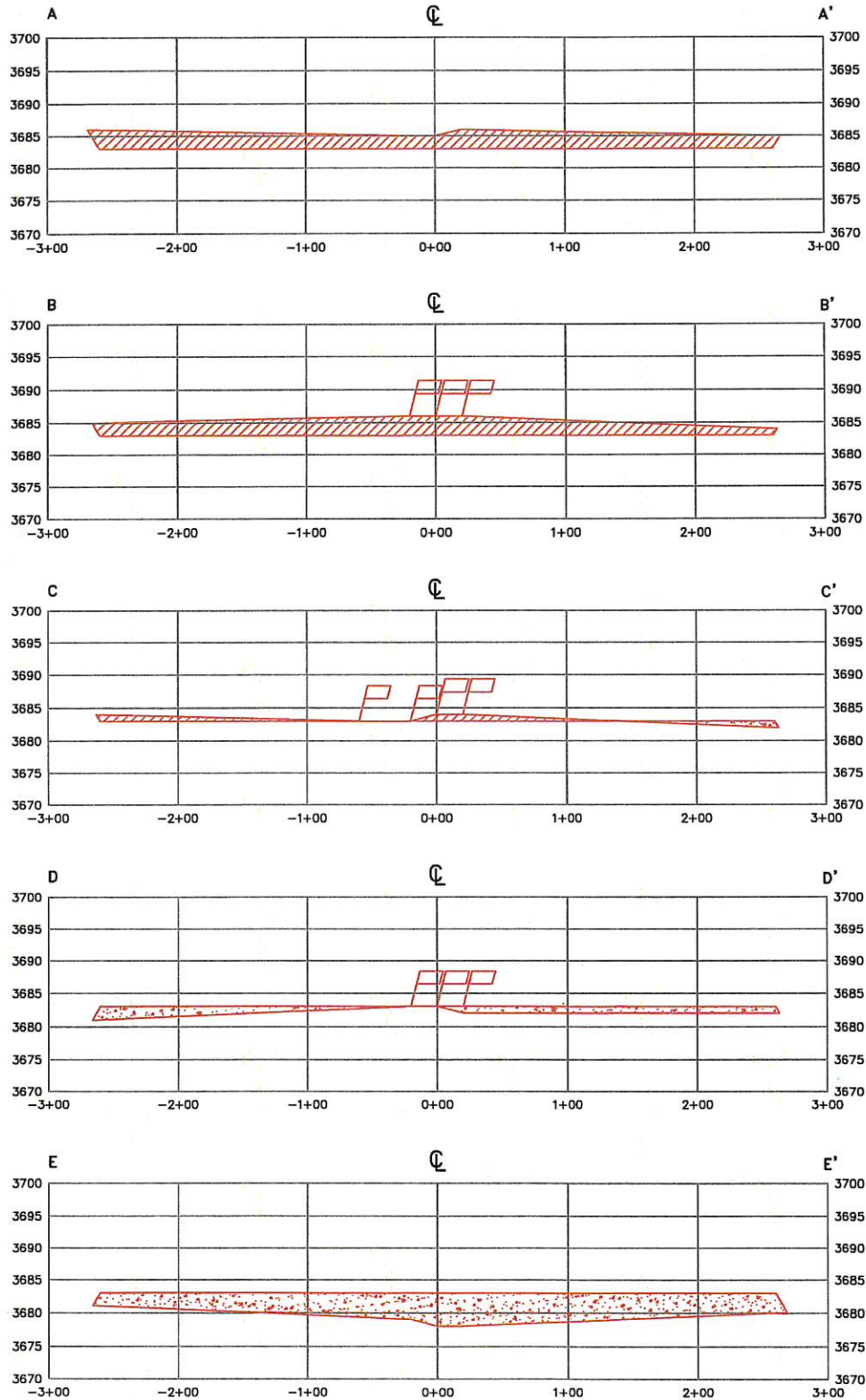
TOPO! map printed on 06/16/24 from "Untitled.tpo"





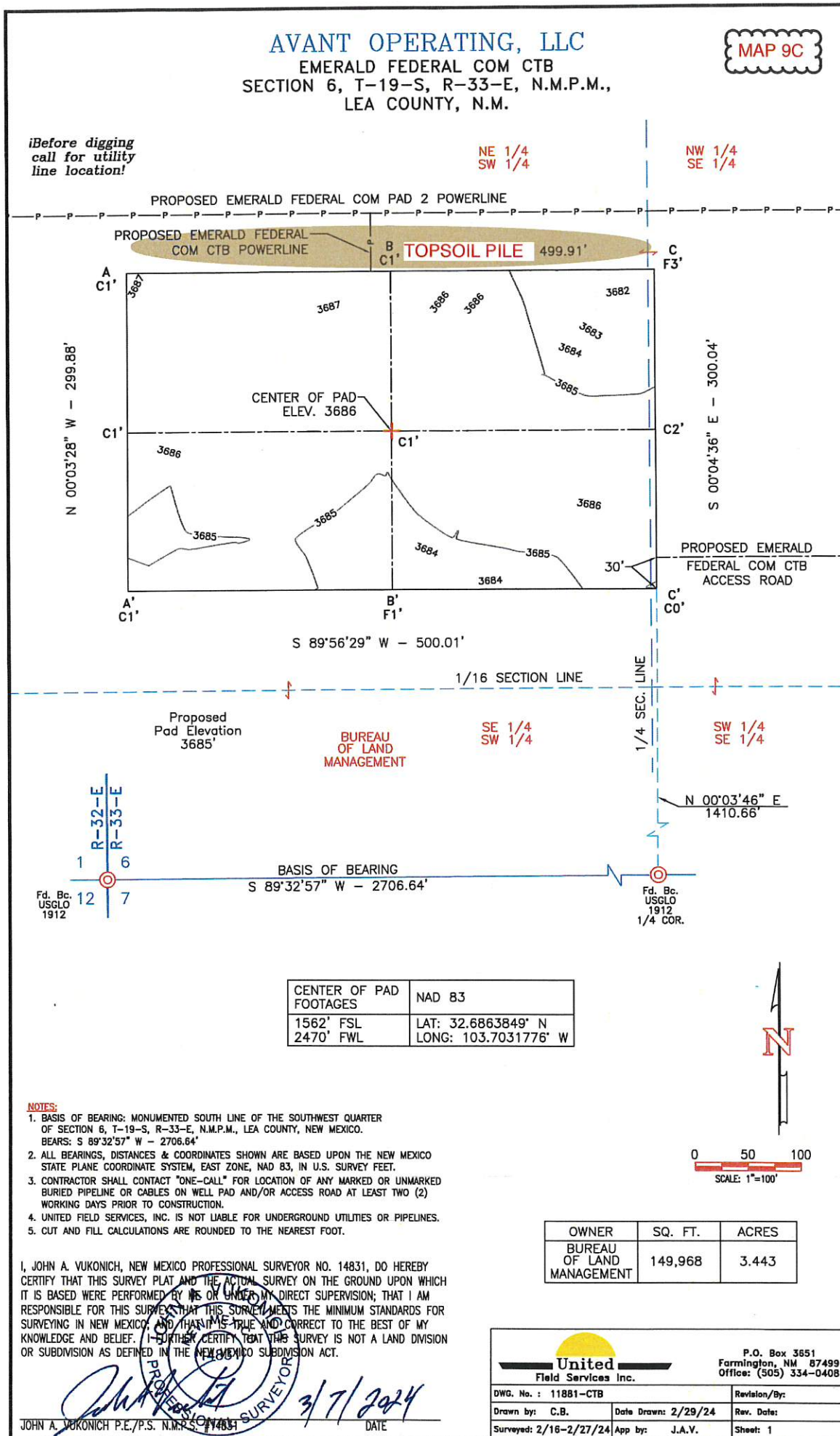
AVANT OPERATING, LLC
EMERALD FEDERAL COM PAD 2
 SECTION 6, T-19-S, R-33-E, N.M.P.M., LEA COUNTY, N.M.

MAP 9B



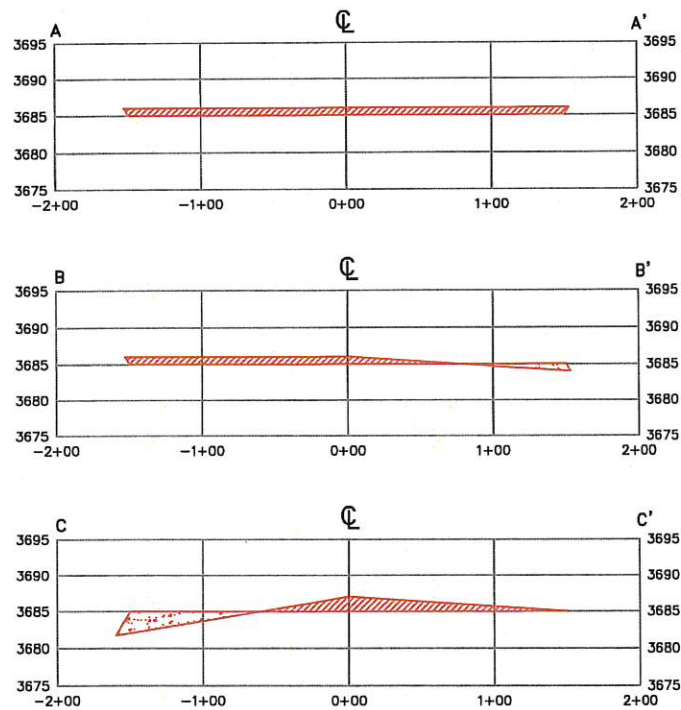
Horizontal Scale: 1" = 100'
 Vertical Scale: 1" = 20'

		P.O. BOX 3651 FARMINGTON, NM 87499 OFFICE: (505) 334-0408	
		Revision/By: 4/C.B.	
DWG. No. : 11847-PAD-2	Drawn by: K.S.	Date Drawn: 11/20/23	Rev. Date: 05/23/24
Surveyed: 10/6/23-5/16/24	App by: J.A.V.	Sheet: 2	



AVANT OPERATING, LLC
 EMERALD FEDERAL COM CTB
 SECTION 6, T-19-S, R-33-E, N.M.P.M.,
 LEA COUNTY, N.M.

MAP 9D



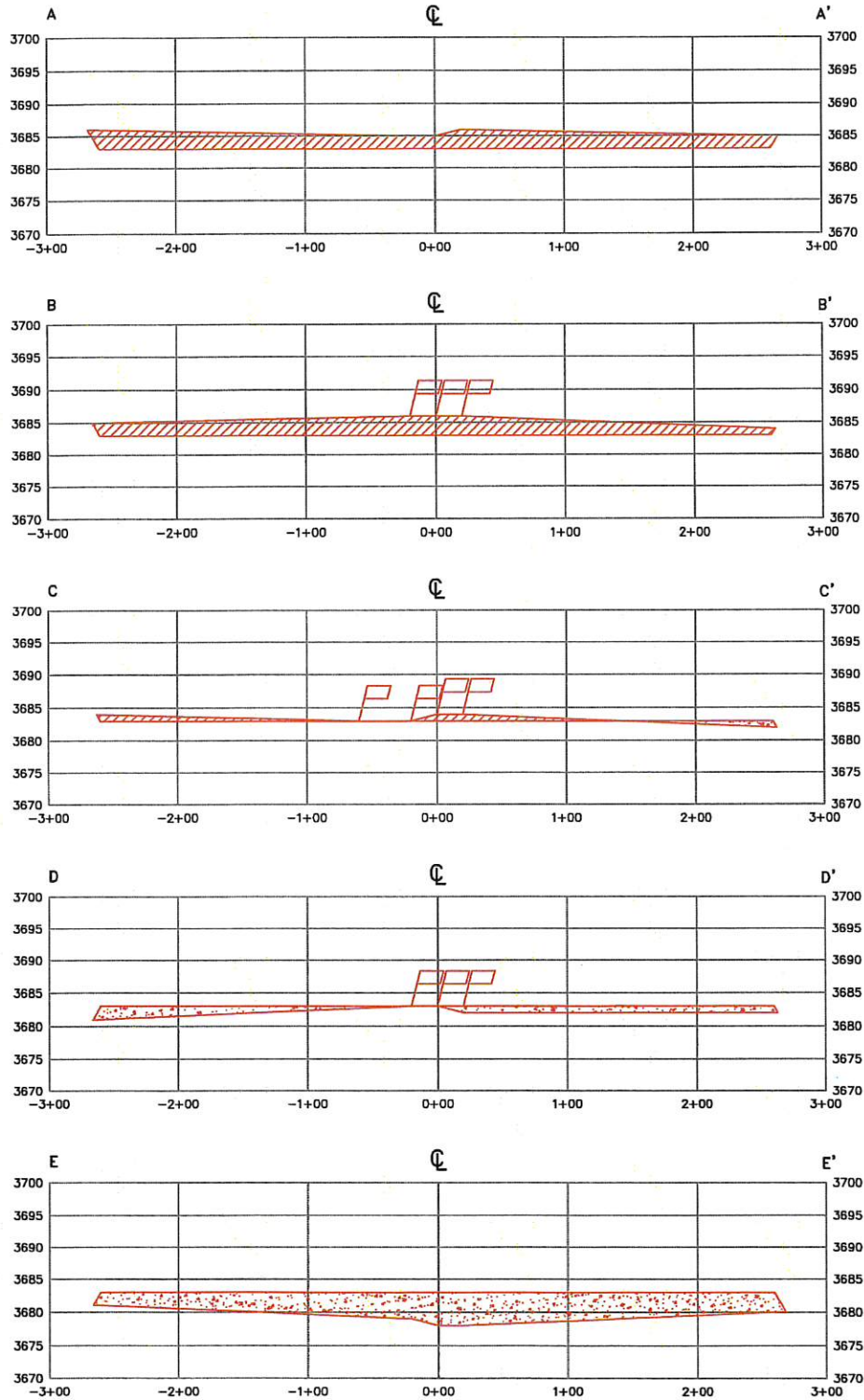
Horizontal Scale: 1" = 100'
 Vertical Scale: 1" = 20'

		P.O. Box 3651 Farmington, NM 87499 Office: (505) 334-0408	
DWG. No. : 11881-CTB		Revision/By:	
Drawn by: C.B.	Date Drawn: 2/29/24	Rev. Date:	
Surveyed: 2/16-2/27/24	App by: J.A.V.	Sheet: 2	



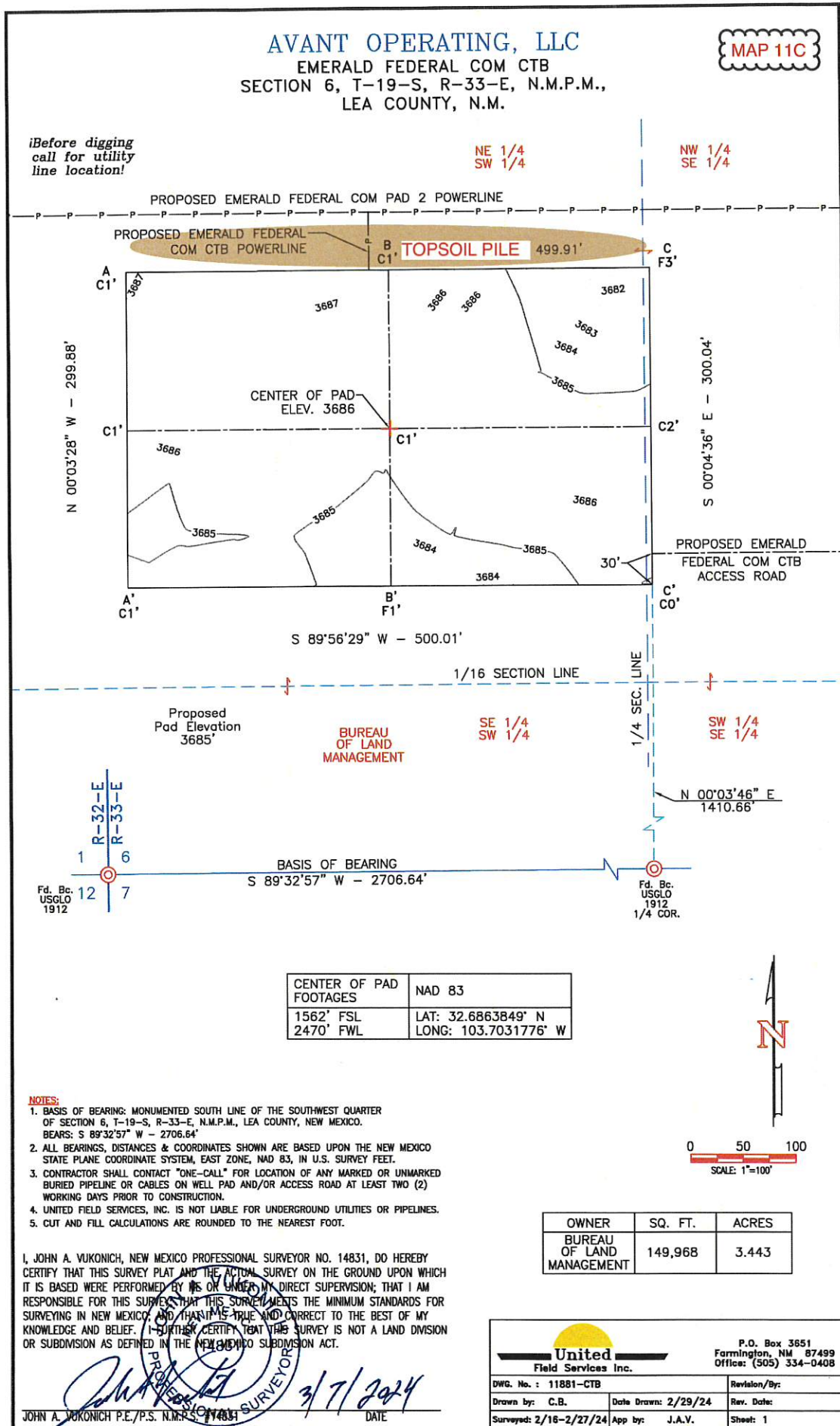
AVANT OPERATING, LLC
EMERALD FEDERAL COM PAD 2
SECTION 6, T-19-S, R-33-E, N.M.P.M., LEA COUNTY, N.M.

MAP 11B



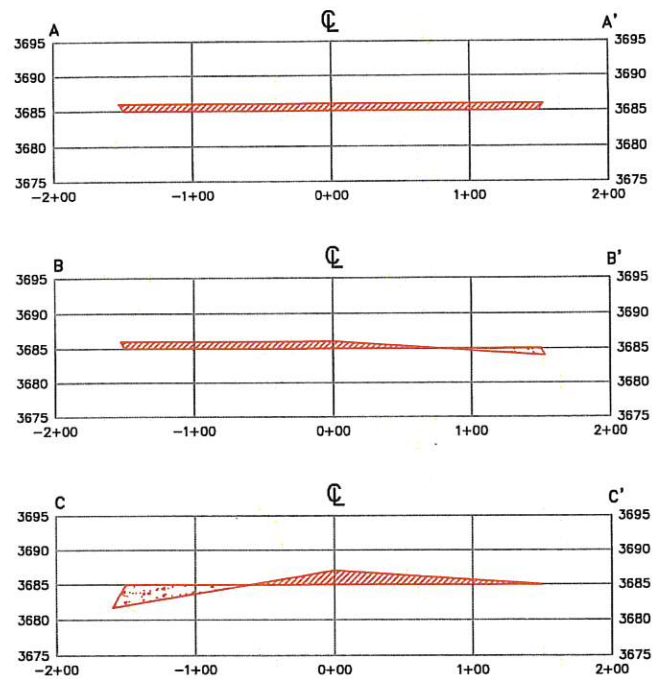
Horizontal Scale: 1" = 100'
Vertical Scale: 1" = 20'

		P.O. BOX 3651 FARMINGTON, NM 87499 OFFICE: (505) 334-0408
DWG. No. : 11847-PAD-2	Revision/By: 4/C.B.	
Drawn by: K.S.	Date Drawn: 11/20/23	Rev. Date: 05/23/24
Surveyed: 10/6/23-5/16/24	App by: J.A.V.	Sheet: 2



AVANT OPERATING, LLC
 EMERALD FEDERAL COM CTB
 SECTION 6, T-19-S, R-33-E, N.M.P.M.,
 LEA COUNTY, N.M.

MAP 11D



Horizontal Scale: 1" = 100'
 Vertical Scale: 1" = 20'

		P.O. Box 3851 Farmington, NM 87499 Office: (505) 334-0408	
		Revision/By:	
DWG. No. : 11881-CTB		Date Drawn: 2/29/24	
Drawn by: C.B.		Rev. Date:	
Surveyed: 2/16-2/27/24		App by: J.A.V.	
Sheet: 2			

WELL DETAILS: Emerald Fed Com 516H

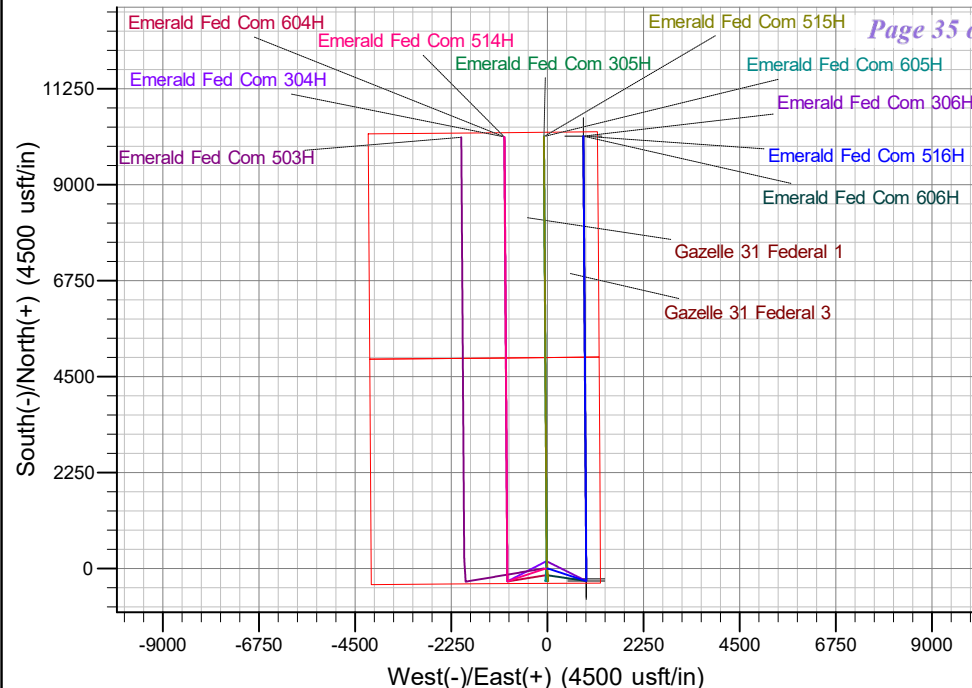
Ground Elev: 3683.8 KB: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	612810.56	736872.85	32.683051	-103.697799

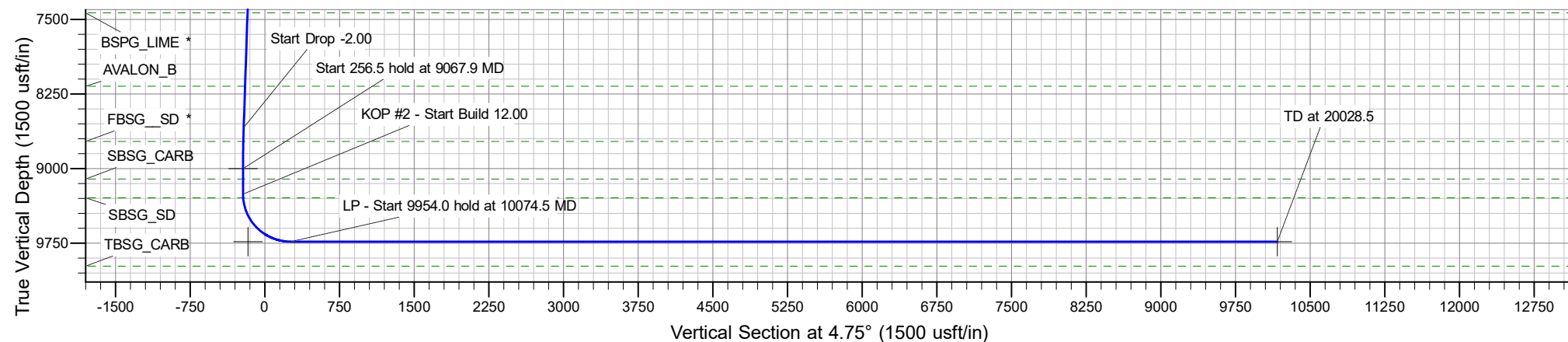
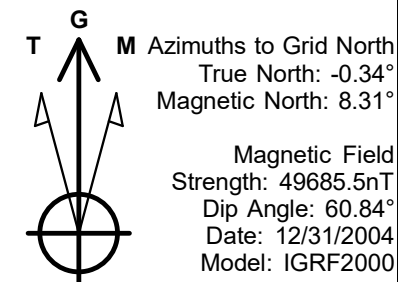
PROJECT DETAILS: Lea Co., NM (NAD 83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 2.00
3	2414.0	8.28	107.95	2412.5	-9.2	28.4	2.00	107.95	-6.8	Start 6240.0 hold at 2414.0 MD
4	8653.9	8.28	107.95	8587.5	-286.1	883.3	0.00	0.00	-211.9	Start Drop -2.00
5	9067.9	0.00	0.00	9000.0	-295.3	911.7	2.00	180.00	-218.7	Start 256.5 hold at 9067.9 MD
6	9324.5	0.00	0.00	9256.5	-295.3	911.7	0.00	0.00	-218.7	KOP #2 - Start Build 12.00
7	10074.5	90.00	359.62	9734.0	182.2	908.5	12.00	359.62	256.8	LP - Start 9954.0 hold at 10074.5 MD
8	20028.5	90.00	359.62	9734.0	10136.0	842.7	0.00	0.00	10171.0	TD at 20028.5



Avant Operating, LLC

Lea Co., NM (NAD 83)

Emerald Pad 2

Emerald Fed Com 516H

OH

Plan: Plan 0.1

Standard Planning Report

24 June, 2024

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Emerald Fed Com 516H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 3710.3usft (Original Well Elev)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 3710.3usft (Original Well Elev)
Site:	Emerald Pad 2	North Reference:	Grid
Well:	Emerald Fed Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Project	Lea Co., NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Emerald Pad 2									
Site Position:		Northing:		612,970.48 usft		Latitude:		32.683491			
From:		Lat/Long		Easting:		736,832.01 usft		Longitude:		-103.697929	
Position Uncertainty:		0.0 usft		Slot Radius:		13-3/16 "					

Well	Emerald Fed Com 516H					
Well Position	+N/-S	0.0 usft	Northing:	612,810.56 usft	Latitude:	32.683051
	+E/-W	0.0 usft	Easting:	736,872.85 usft	Longitude:	-103.697799
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,683.8 usft
Grid Convergence:		0.34 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	8.66	60.84	49,685.45888135

Design	Plan 0.1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	4.75

Plan Survey Tool Program	Date	6/24/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,028.5 Plan 0.1 (OH)	B001Mb_MWD+HRGM	
			OWSG MWD + HRGM	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,414.0	8.28	107.95	2,412.5	-9.2	28.4	2.00	2.00	0.00	107.95	
8,653.9	8.28	107.95	8,587.5	-286.1	883.3	0.00	0.00	0.00	0.00	
9,067.9	0.00	0.00	9,000.0	-295.3	911.7	2.00	-2.00	0.00	180.00	KOP - Emerald Fed C
9,324.5	0.00	0.00	9,256.5	-295.3	911.7	0.00	0.00	0.00	0.00	
10,074.5	90.00	359.62	9,734.0	182.2	908.5	12.00	12.00	0.00	359.62	
20,028.5	90.00	359.62	9,734.0	10,136.0	842.7	0.00	0.00	0.00	0.00	LTP/BHL - Emerald Fi

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Emerald Fed Com 516H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 3710.3usft (Original Well Elev)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 3710.3usft (Original Well Elev)
Site:	Emerald Pad 2	North Reference:	Grid
Well:	Emerald Fed Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,460.0	0.00	0.00	1,460.0	0.0	0.0	0.0	0.00	0.00	0.00
RUSTLER									
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,754.0	0.00	0.00	1,754.0	0.0	0.0	0.0	0.00	0.00	0.00
SOLADO									
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 2.00									
2,100.0	2.00	107.95	2,100.0	-0.5	1.7	-0.4	2.00	2.00	0.00
2,200.0	4.00	107.95	2,199.8	-2.2	6.6	-1.6	2.00	2.00	0.00
2,300.0	6.00	107.95	2,299.5	-4.8	14.9	-3.6	2.00	2.00	0.00
2,400.0	8.00	107.95	2,398.7	-8.6	26.5	-6.4	2.00	2.00	0.00
2,414.0	8.28	107.95	2,412.5	-9.2	28.4	-6.8	2.00	2.00	0.00
Start 6240.0 hold at 2414.0 MD									
2,500.0	8.28	107.95	2,497.7	-13.0	40.2	-9.6	0.00	0.00	0.00
2,600.0	8.28	107.95	2,596.6	-17.5	53.9	-12.9	0.00	0.00	0.00
2,700.0	8.28	107.95	2,695.6	-21.9	67.6	-16.2	0.00	0.00	0.00
2,800.0	8.28	107.95	2,794.5	-26.3	81.3	-19.5	0.00	0.00	0.00
2,900.0	8.28	107.95	2,893.5	-30.8	95.0	-22.8	0.00	0.00	0.00
3,000.0	8.28	107.95	2,992.5	-35.2	108.7	-26.1	0.00	0.00	0.00
3,100.0	8.28	107.95	3,091.4	-39.6	122.4	-29.4	0.00	0.00	0.00
3,200.0	8.28	107.95	3,190.4	-44.1	136.1	-32.6	0.00	0.00	0.00
3,300.0	8.28	107.95	3,289.3	-48.5	149.8	-35.9	0.00	0.00	0.00
3,400.0	8.28	107.95	3,388.3	-53.0	163.5	-39.2	0.00	0.00	0.00
3,465.4	8.28	107.95	3,453.0	-55.9	172.4	-41.4	0.00	0.00	0.00
YATES									
3,500.0	8.28	107.95	3,487.2	-57.4	177.2	-42.5	0.00	0.00	0.00
3,600.0	8.28	107.95	3,586.2	-61.8	190.9	-45.8	0.00	0.00	0.00
3,700.0	8.28	107.95	3,685.2	-66.3	204.6	-49.1	0.00	0.00	0.00
3,800.0	8.28	107.95	3,784.1	-70.7	218.3	-52.4	0.00	0.00	0.00
3,900.0	8.28	107.95	3,883.1	-75.1	232.0	-55.7	0.00	0.00	0.00
4,000.0	8.28	107.95	3,982.0	-79.6	245.7	-58.9	0.00	0.00	0.00
4,100.0	8.28	107.95	4,081.0	-84.0	259.4	-62.2	0.00	0.00	0.00
4,200.0	8.28	107.95	4,179.9	-88.4	273.1	-65.5	0.00	0.00	0.00
4,300.0	8.28	107.95	4,278.9	-92.9	286.8	-68.8	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Emerald Fed Com 516H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 3710.3usft (Original Well Elev)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 3710.3usft (Original Well Elev)
Site:	Emerald Pad 2	North Reference:	Grid
Well:	Emerald Fed Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.0	8.28	107.95	4,377.9	-97.3	300.5	-72.1	0.00	0.00	0.00
4,500.0	8.28	107.95	4,476.8	-101.8	314.2	-75.4	0.00	0.00	0.00
4,600.0	8.28	107.95	4,575.8	-106.2	327.9	-78.7	0.00	0.00	0.00
4,700.0	8.28	107.95	4,674.7	-110.6	341.6	-82.0	0.00	0.00	0.00
4,755.8	8.28	107.95	4,730.0	-113.1	349.2	-83.8	0.00	0.00	0.00
CAPITAN_REEF									
4,800.0	8.28	107.95	4,773.7	-115.1	355.3	-85.2	0.00	0.00	0.00
4,900.0	8.28	107.95	4,872.6	-119.5	369.0	-88.5	0.00	0.00	0.00
5,000.0	8.28	107.95	4,971.6	-123.9	382.7	-91.8	0.00	0.00	0.00
5,100.0	8.28	107.95	5,070.6	-128.4	396.4	-95.1	0.00	0.00	0.00
5,181.3	8.28	107.95	5,151.0	-132.0	407.5	-97.8	0.00	0.00	0.00
CHERRY_CNYN									
5,200.0	8.28	107.95	5,169.5	-132.8	410.1	-98.4	0.00	0.00	0.00
5,300.0	8.28	107.95	5,268.5	-137.3	423.8	-101.7	0.00	0.00	0.00
5,400.0	8.28	107.95	5,367.4	-141.7	437.5	-105.0	0.00	0.00	0.00
5,500.0	8.28	107.95	5,466.4	-146.1	451.2	-108.2	0.00	0.00	0.00
5,600.0	8.28	107.95	5,565.4	-150.6	464.9	-111.5	0.00	0.00	0.00
5,700.0	8.28	107.95	5,664.3	-155.0	478.6	-114.8	0.00	0.00	0.00
5,800.0	8.28	107.95	5,763.3	-159.4	492.3	-118.1	0.00	0.00	0.00
5,804.8	8.28	107.95	5,768.0	-159.7	492.9	-118.3	0.00	0.00	0.00
BRUSHY_CANYON									
5,900.0	8.28	107.95	5,862.2	-163.9	506.0	-121.4	0.00	0.00	0.00
6,000.0	8.28	107.95	5,961.2	-168.3	519.7	-124.7	0.00	0.00	0.00
6,100.0	8.28	107.95	6,060.1	-172.8	533.4	-128.0	0.00	0.00	0.00
6,200.0	8.28	107.95	6,159.1	-177.2	547.1	-131.3	0.00	0.00	0.00
6,300.0	8.28	107.95	6,258.1	-181.6	560.8	-134.5	0.00	0.00	0.00
6,400.0	8.28	107.95	6,357.0	-186.1	574.5	-137.8	0.00	0.00	0.00
6,500.0	8.28	107.95	6,456.0	-190.5	588.2	-141.1	0.00	0.00	0.00
6,600.0	8.28	107.95	6,554.9	-194.9	601.9	-144.4	0.00	0.00	0.00
6,700.0	8.28	107.95	6,653.9	-199.4	615.6	-147.7	0.00	0.00	0.00
6,800.0	8.28	107.95	6,752.8	-203.8	629.3	-151.0	0.00	0.00	0.00
6,900.0	8.28	107.95	6,851.8	-208.2	643.0	-154.3	0.00	0.00	0.00
7,000.0	8.28	107.95	6,950.8	-212.7	656.7	-157.5	0.00	0.00	0.00
7,100.0	8.28	107.95	7,049.7	-217.1	670.4	-160.8	0.00	0.00	0.00
7,200.0	8.28	107.95	7,148.7	-221.6	684.1	-164.1	0.00	0.00	0.00
7,300.0	8.28	107.95	7,247.6	-226.0	697.8	-167.4	0.00	0.00	0.00
7,400.0	8.28	107.95	7,346.6	-230.4	711.5	-170.7	0.00	0.00	0.00
7,488.3	8.28	107.95	7,434.0	-234.4	723.6	-173.6	0.00	0.00	0.00
BSPG_LIME *									
7,500.0	8.28	107.95	7,445.6	-234.9	725.2	-174.0	0.00	0.00	0.00
7,600.0	8.28	107.95	7,544.5	-239.3	738.9	-177.3	0.00	0.00	0.00
7,700.0	8.28	107.95	7,643.5	-243.7	752.6	-180.6	0.00	0.00	0.00
7,800.0	8.28	107.95	7,742.4	-248.2	766.3	-183.8	0.00	0.00	0.00
7,900.0	8.28	107.95	7,841.4	-252.6	780.0	-187.1	0.00	0.00	0.00
8,000.0	8.28	107.95	7,940.3	-257.1	793.7	-190.4	0.00	0.00	0.00
8,100.0	8.28	107.95	8,039.3	-261.5	807.4	-193.7	0.00	0.00	0.00
8,200.0	8.28	107.95	8,138.3	-265.9	821.1	-197.0	0.00	0.00	0.00
8,234.1	8.28	107.95	8,172.0	-267.4	825.7	-198.1	0.00	0.00	0.00
AVALON_B									
8,300.0	8.28	107.95	8,237.2	-270.4	834.8	-200.3	0.00	0.00	0.00
8,400.0	8.28	107.95	8,336.2	-274.8	848.5	-203.6	0.00	0.00	0.00
8,500.0	8.28	107.95	8,435.1	-279.2	862.2	-206.8	0.00	0.00	0.00
8,600.0	8.28	107.95	8,534.1	-283.7	875.9	-210.1	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Emerald Fed Com 516H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 3710.3usft (Original Well Elev)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 3710.3usft (Original Well Elev)
Site:	Emerald Pad 2	North Reference:	Grid
Well:	Emerald Fed Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,653.9	8.28	107.95	8,587.5	-286.1	883.3	-211.9	0.00	0.00	0.00
Start Drop -2.00									
8,700.0	7.36	107.95	8,633.1	-288.0	889.2	-213.3	2.00	-2.00	0.00
8,794.5	5.47	107.95	8,727.0	-291.3	899.3	-215.7	2.00	-2.00	0.00
FBSG_SD *									
8,800.0	5.36	107.95	8,732.5	-291.4	899.8	-215.9	2.00	-2.00	0.00
8,900.0	3.36	107.95	8,832.2	-293.8	907.0	-217.6	2.00	-2.00	0.00
9,000.0	1.36	107.95	8,932.1	-295.0	910.9	-218.5	2.00	-2.00	0.00
9,067.9	0.00	0.00	9,000.0	-295.3	911.7	-218.7	2.00	-2.00	0.00
Start 256.5 hold at 9067.9 MD - KOP - Emerald Fed Com 516H									
9,100.0	0.00	0.00	9,032.1	-295.3	911.7	-218.7	0.00	0.00	0.00
9,171.9	0.00	0.00	9,104.0	-295.3	911.7	-218.7	0.00	0.00	0.00
SBSG_CARB									
9,200.0	0.00	0.00	9,132.1	-295.3	911.7	-218.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,232.1	-295.3	911.7	-218.7	0.00	0.00	0.00
9,324.5	0.00	0.00	9,256.5	-295.3	911.7	-218.7	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
9,350.0	3.07	359.62	9,282.1	-294.6	911.7	-218.0	12.00	12.00	0.00
9,362.0	4.50	359.62	9,294.0	-293.8	911.7	-217.3	12.00	12.00	0.00
SBSG_SD									
9,375.0	6.07	359.62	9,307.0	-292.6	911.7	-216.1	12.00	12.00	0.00
9,400.0	9.07	359.62	9,331.8	-289.3	911.6	-212.8	12.00	12.00	0.00
9,425.0	12.07	359.62	9,356.3	-284.7	911.6	-208.2	12.00	12.00	0.00
9,450.0	15.07	359.62	9,380.6	-278.9	911.6	-202.4	12.00	12.00	0.00
9,475.0	18.07	359.62	9,404.6	-271.7	911.5	-195.3	12.00	12.00	0.00
9,500.0	21.07	359.62	9,428.2	-263.4	911.5	-186.9	12.00	12.00	0.00
9,525.0	24.07	359.62	9,451.2	-253.8	911.4	-177.4	12.00	12.00	0.00
9,550.0	27.07	359.62	9,473.8	-243.0	911.3	-166.6	12.00	12.00	0.00
9,575.0	30.07	359.62	9,495.7	-231.0	911.2	-154.7	12.00	12.00	0.00
9,600.0	33.07	359.62	9,517.0	-217.9	911.2	-141.7	12.00	12.00	0.00
9,625.0	36.07	359.62	9,537.6	-203.8	911.1	-127.6	12.00	12.00	0.00
9,650.0	39.07	359.62	9,557.4	-188.5	911.0	-112.4	12.00	12.00	0.00
9,675.0	42.07	359.62	9,576.4	-172.3	910.9	-96.2	12.00	12.00	0.00
9,700.0	45.07	359.62	9,594.5	-155.0	910.7	-79.1	12.00	12.00	0.00
9,725.0	48.07	359.62	9,611.7	-136.9	910.6	-61.0	12.00	12.00	0.00
FTP - Emerald Fed Com 516H									
9,750.0	51.07	359.62	9,627.9	-117.9	910.5	-42.0	12.00	12.00	0.00
9,775.0	54.07	359.62	9,643.1	-98.0	910.4	-22.3	12.00	12.00	0.00
9,800.0	57.07	359.62	9,657.3	-77.4	910.2	-1.7	12.00	12.00	0.00
9,825.0	60.07	359.62	9,670.3	-56.1	910.1	19.5	12.00	12.00	0.00
9,850.0	63.07	359.62	9,682.2	-34.1	909.9	41.4	12.00	12.00	0.00
9,875.0	66.07	359.62	9,692.9	-11.5	909.8	63.9	12.00	12.00	0.00
9,900.0	69.07	359.62	9,702.5	11.6	909.6	86.9	12.00	12.00	0.00
9,925.0	72.07	359.62	9,710.8	35.2	909.5	110.4	12.00	12.00	0.00
9,950.0	75.07	359.62	9,717.9	59.1	909.3	134.3	12.00	12.00	0.00
9,975.0	78.07	359.62	9,723.7	83.5	909.2	158.5	12.00	12.00	0.00
10,000.0	81.07	359.62	9,728.2	108.0	909.0	183.0	12.00	12.00	0.00
10,025.0	84.07	359.62	9,731.4	132.8	908.8	207.7	12.00	12.00	0.00
10,050.0	87.07	359.62	9,733.4	157.7	908.7	232.5	12.00	12.00	0.00
10,074.5	90.00	359.62	9,734.0	182.2	908.5	256.8	12.00	12.00	0.00
LP - Start 9954.0 hold at 10074.5 MD									
10,100.0	90.00	359.62	9,734.0	207.7	908.3	282.3	0.00	0.00	0.00
10,200.0	90.00	359.62	9,734.0	307.7	907.7	381.9	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Emerald Fed Com 516H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 3710.3usft (Original Well Elev)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 3710.3usft (Original Well Elev)
Site:	Emerald Pad 2	North Reference:	Grid
Well:	Emerald Fed Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.0	90.00	359.62	9,734.0	407.7	907.0	481.5	0.00	0.00	0.00
10,400.0	90.00	359.62	9,734.0	507.7	906.4	581.1	0.00	0.00	0.00
10,500.0	90.00	359.62	9,734.0	607.7	905.7	680.7	0.00	0.00	0.00
10,600.0	90.00	359.62	9,734.0	707.7	905.0	780.3	0.00	0.00	0.00
10,700.0	90.00	359.62	9,734.0	807.7	904.4	879.9	0.00	0.00	0.00
10,800.0	90.00	359.62	9,734.0	907.7	903.7	979.5	0.00	0.00	0.00
10,900.0	90.00	359.62	9,734.0	1,007.7	903.1	1,079.1	0.00	0.00	0.00
11,000.0	90.00	359.62	9,734.0	1,107.7	902.4	1,178.7	0.00	0.00	0.00
11,100.0	90.00	359.62	9,734.0	1,207.7	901.7	1,278.3	0.00	0.00	0.00
11,200.0	90.00	359.62	9,734.0	1,307.7	901.1	1,377.9	0.00	0.00	0.00
11,300.0	90.00	359.62	9,734.0	1,407.7	900.4	1,477.5	0.00	0.00	0.00
11,400.0	90.00	359.62	9,734.0	1,507.7	899.7	1,577.1	0.00	0.00	0.00
11,500.0	90.00	359.62	9,734.0	1,607.7	899.1	1,676.7	0.00	0.00	0.00
11,600.0	90.00	359.62	9,734.0	1,707.7	898.4	1,776.3	0.00	0.00	0.00
11,700.0	90.00	359.62	9,734.0	1,807.7	897.8	1,875.9	0.00	0.00	0.00
11,800.0	90.00	359.62	9,734.0	1,907.7	897.1	1,975.5	0.00	0.00	0.00
11,900.0	90.00	359.62	9,734.0	2,007.7	896.4	2,075.1	0.00	0.00	0.00
12,000.0	90.00	359.62	9,734.0	2,107.7	895.8	2,174.7	0.00	0.00	0.00
12,100.0	90.00	359.62	9,734.0	2,207.7	895.1	2,274.3	0.00	0.00	0.00
12,200.0	90.00	359.62	9,734.0	2,307.7	894.5	2,373.9	0.00	0.00	0.00
12,300.0	90.00	359.62	9,734.0	2,407.7	893.8	2,473.5	0.00	0.00	0.00
12,400.0	90.00	359.62	9,734.0	2,507.7	893.1	2,573.1	0.00	0.00	0.00
12,500.0	90.00	359.62	9,734.0	2,607.7	892.5	2,672.7	0.00	0.00	0.00
12,600.0	90.00	359.62	9,734.0	2,707.7	891.8	2,772.3	0.00	0.00	0.00
12,700.0	90.00	359.62	9,734.0	2,807.7	891.1	2,871.9	0.00	0.00	0.00
12,800.0	90.00	359.62	9,734.0	2,907.7	890.5	2,971.5	0.00	0.00	0.00
12,900.0	90.00	359.62	9,734.0	3,007.7	889.8	3,071.1	0.00	0.00	0.00
13,000.0	90.00	359.62	9,734.0	3,107.7	889.2	3,170.7	0.00	0.00	0.00
13,100.0	90.00	359.62	9,734.0	3,207.7	888.5	3,270.3	0.00	0.00	0.00
13,200.0	90.00	359.62	9,734.0	3,307.7	887.8	3,369.9	0.00	0.00	0.00
13,300.0	90.00	359.62	9,734.0	3,407.7	887.2	3,469.4	0.00	0.00	0.00
13,400.0	90.00	359.62	9,734.0	3,507.7	886.5	3,569.0	0.00	0.00	0.00
13,500.0	90.00	359.62	9,734.0	3,607.7	885.9	3,668.6	0.00	0.00	0.00
13,600.0	90.00	359.62	9,734.0	3,707.7	885.2	3,768.2	0.00	0.00	0.00
13,700.0	90.00	359.62	9,734.0	3,807.7	884.5	3,867.8	0.00	0.00	0.00
13,800.0	90.00	359.62	9,734.0	3,907.7	883.9	3,967.4	0.00	0.00	0.00
13,900.0	90.00	359.62	9,734.0	4,007.6	883.2	4,067.0	0.00	0.00	0.00
14,000.0	90.00	359.62	9,734.0	4,107.6	882.5	4,166.6	0.00	0.00	0.00
14,100.0	90.00	359.62	9,734.0	4,207.6	881.9	4,266.2	0.00	0.00	0.00
14,200.0	90.00	359.62	9,734.0	4,307.6	881.2	4,365.8	0.00	0.00	0.00
14,300.0	90.00	359.62	9,734.0	4,407.6	880.6	4,465.4	0.00	0.00	0.00
14,400.0	90.00	359.62	9,734.0	4,507.6	879.9	4,565.0	0.00	0.00	0.00
14,500.0	90.00	359.62	9,734.0	4,607.6	879.2	4,664.6	0.00	0.00	0.00
14,600.0	90.00	359.62	9,734.0	4,707.6	878.6	4,764.2	0.00	0.00	0.00
14,700.0	90.00	359.62	9,734.0	4,807.6	877.9	4,863.8	0.00	0.00	0.00
14,800.0	90.00	359.62	9,734.0	4,907.6	877.3	4,963.4	0.00	0.00	0.00
14,900.0	90.00	359.62	9,734.0	5,007.6	876.6	5,063.0	0.00	0.00	0.00
15,000.0	90.00	359.62	9,734.0	5,107.6	875.9	5,162.6	0.00	0.00	0.00
15,100.0	90.00	359.62	9,734.0	5,207.6	875.3	5,262.2	0.00	0.00	0.00
15,200.0	90.00	359.62	9,734.0	5,307.6	874.6	5,361.8	0.00	0.00	0.00
15,300.0	90.00	359.62	9,734.0	5,407.6	873.9	5,461.4	0.00	0.00	0.00
15,400.0	90.00	359.62	9,734.0	5,507.6	873.3	5,561.0	0.00	0.00	0.00
15,500.0	90.00	359.62	9,734.0	5,607.6	872.6	5,660.6	0.00	0.00	0.00
15,600.0	90.00	359.62	9,734.0	5,707.6	872.0	5,760.2	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Emerald Fed Com 516H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 3710.3usft (Original Well Elev)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 3710.3usft (Original Well Elev)
Site:	Emerald Pad 2	North Reference:	Grid
Well:	Emerald Fed Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,700.0	90.00	359.62	9,734.0	5,807.6	871.3	5,859.8	0.00	0.00	0.00
15,800.0	90.00	359.62	9,734.0	5,907.6	870.6	5,959.4	0.00	0.00	0.00
15,900.0	90.00	359.62	9,734.0	6,007.6	870.0	6,059.0	0.00	0.00	0.00
16,000.0	90.00	359.62	9,734.0	6,107.6	869.3	6,158.6	0.00	0.00	0.00
16,100.0	90.00	359.62	9,734.0	6,207.6	868.7	6,258.2	0.00	0.00	0.00
16,200.0	90.00	359.62	9,734.0	6,307.6	868.0	6,357.8	0.00	0.00	0.00
16,300.0	90.00	359.62	9,734.0	6,407.6	867.3	6,457.4	0.00	0.00	0.00
16,400.0	90.00	359.62	9,734.0	6,507.6	866.7	6,557.0	0.00	0.00	0.00
16,500.0	90.00	359.62	9,734.0	6,607.6	866.0	6,656.6	0.00	0.00	0.00
16,600.0	90.00	359.62	9,734.0	6,707.6	865.3	6,756.2	0.00	0.00	0.00
16,700.0	90.00	359.62	9,734.0	6,807.6	864.7	6,855.8	0.00	0.00	0.00
16,800.0	90.00	359.62	9,734.0	6,907.6	864.0	6,955.4	0.00	0.00	0.00
16,900.0	90.00	359.62	9,734.0	7,007.6	863.4	7,055.0	0.00	0.00	0.00
17,000.0	90.00	359.62	9,734.0	7,107.6	862.7	7,154.6	0.00	0.00	0.00
17,100.0	90.00	359.62	9,734.0	7,207.6	862.0	7,254.2	0.00	0.00	0.00
17,200.0	90.00	359.62	9,734.0	7,307.6	861.4	7,353.8	0.00	0.00	0.00
17,300.0	90.00	359.62	9,734.0	7,407.6	860.7	7,453.4	0.00	0.00	0.00
17,400.0	90.00	359.62	9,734.0	7,507.6	860.1	7,553.0	0.00	0.00	0.00
17,500.0	90.00	359.62	9,734.0	7,607.6	859.4	7,652.6	0.00	0.00	0.00
17,600.0	90.00	359.62	9,734.0	7,707.6	858.7	7,752.2	0.00	0.00	0.00
17,700.0	90.00	359.62	9,734.0	7,807.6	858.1	7,851.8	0.00	0.00	0.00
17,800.0	90.00	359.62	9,734.0	7,907.6	857.4	7,951.4	0.00	0.00	0.00
17,900.0	90.00	359.62	9,734.0	8,007.6	856.7	8,051.0	0.00	0.00	0.00
18,000.0	90.00	359.62	9,734.0	8,107.6	856.1	8,150.6	0.00	0.00	0.00
18,100.0	90.00	359.62	9,734.0	8,207.6	855.4	8,250.2	0.00	0.00	0.00
18,200.0	90.00	359.62	9,734.0	8,307.6	854.8	8,349.8	0.00	0.00	0.00
18,300.0	90.00	359.62	9,734.0	8,407.6	854.1	8,449.4	0.00	0.00	0.00
18,400.0	90.00	359.62	9,734.0	8,507.6	853.4	8,549.0	0.00	0.00	0.00
18,500.0	90.00	359.62	9,734.0	8,607.5	852.8	8,648.6	0.00	0.00	0.00
18,600.0	90.00	359.62	9,734.0	8,707.5	852.1	8,748.2	0.00	0.00	0.00
18,700.0	90.00	359.62	9,734.0	8,807.5	851.5	8,847.8	0.00	0.00	0.00
18,800.0	90.00	359.62	9,734.0	8,907.5	850.8	8,947.4	0.00	0.00	0.00
18,900.0	90.00	359.62	9,734.0	9,007.5	850.1	9,047.0	0.00	0.00	0.00
19,000.0	90.00	359.62	9,734.0	9,107.5	849.5	9,146.6	0.00	0.00	0.00
19,100.0	90.00	359.62	9,734.0	9,207.5	848.8	9,246.2	0.00	0.00	0.00
19,200.0	90.00	359.62	9,734.0	9,307.5	848.2	9,345.8	0.00	0.00	0.00
19,300.0	90.00	359.62	9,734.0	9,407.5	847.5	9,445.4	0.00	0.00	0.00
19,400.0	90.00	359.62	9,734.0	9,507.5	846.8	9,545.0	0.00	0.00	0.00
19,500.0	90.00	359.62	9,734.0	9,607.5	846.2	9,644.6	0.00	0.00	0.00
19,600.0	90.00	359.62	9,734.0	9,707.5	845.5	9,744.2	0.00	0.00	0.00
19,700.0	90.00	359.62	9,734.0	9,807.5	844.8	9,843.8	0.00	0.00	0.00
19,800.0	90.00	359.62	9,734.0	9,907.5	844.2	9,943.4	0.00	0.00	0.00
19,900.0	90.00	359.62	9,734.0	10,007.5	843.5	10,043.0	0.00	0.00	0.00
20,000.0	90.00	359.62	9,734.0	10,107.5	842.9	10,142.6	0.00	0.00	0.00
20,028.5	90.00	359.62	9,734.0	10,136.0	842.7	10,171.0	0.00	0.00	0.00
TD at 20028.5 - LTP/BHL - Emerald Fed Com 516H									

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Emerald Fed Com 516H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 3710.3usft (Original Well Elev)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 3710.3usft (Original Well Elev)
Site:	Emerald Pad 2	North Reference:	Grid
Well:	Emerald Fed Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
KOP - Emerald Fed Con	0.00	0.00	9,000.0	-295.3	911.7	612,515.29	737,784.52	32.682224	-103.694842
- plan hits target center									
- Point									
LTP/BHL - Emerald Fed	0.00	0.00	9,734.0	10,136.0	842.7	622,946.55	737,715.52	32.710896	-103.694862
- plan hits target center									
- Point									
FTP - Emerald Fed Com	0.00	0.00	9,734.0	-245.3	911.4	612,565.29	737,784.25	32.682361	-103.694842
- plan misses target center by 163.4usft at 9725.0usft MD (9611.7 TVD, -136.9 N, 910.6 E)									
- Point									

Formations						
Measured Depth	Vertical Depth					
(usft)	(usft)	Name	Lithology	Dip	Dip Direction	
				(°)	(°)	
1,460.0	1,460.0	RUSTLER				
1,754.0	1,754.0	SOLADO				
3,465.4	3,453.0	YATES				
4,755.8	4,730.0	CAPITAN_REEF				
5,181.3	5,151.0	CHERRY_CNYN				
5,804.8	5,768.0	BRUSHY_CANYON				
7,488.3	7,434.0	BSPG_LIME *				
8,234.1	8,172.0	AVALON_B				
8,794.5	8,727.0	FBSG_SD *				
9,171.9	9,104.0	SBSG_CARB				
9,362.0	9,294.0	SBSG_SD				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	Comment
2,000.0	2,000.0	0.0	0.0	KOP - Start Build 2.00
2,414.0	2,412.5	-9.2	28.4	Start 6240.0 hold at 2414.0 MD
8,653.9	8,587.5	-286.1	883.3	Start Drop -2.00
9,067.9	9,000.0	-295.3	911.7	Start 256.5 hold at 9067.9 MD
9,324.5	9,256.5	-295.3	911.7	KOP #2 - Start Build 12.00
10,074.5	9,734.0	182.2	908.5	LP - Start 9954.0 hold at 10074.5 MD
20,028.5	9,734.0	10,136.0	842.7	TD at 20028.5

AFE: 0



Emerald Federal Com 516H

API:
REGULATORY: NMOCD
PERMIT #

Bone Spring
Lea County, NM

RIG: H&P 460
KB: 3710.5 (26.5')
GL: 3684'
CAMERON WELLHEAD
13" x 7-1/16" NOM

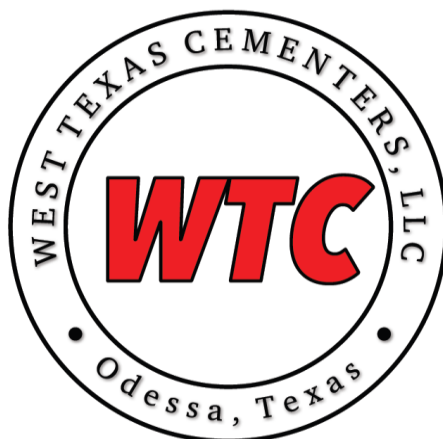
SHL:
Sec. 6, T-19S, R-33E; 350 FSL, 1240 FEL
Lat: 32.6830505, Long: -103.6977987 (NAD83)

HOLE SIZE	MD	FORMATION	TVD	MUD	CASING	CEMENT	SPECIAL INSTRUCTIONS
	120	20" Conductor	120	SPUD MW	13 3/8 "	LEAD: 12.8 PPG Top of Lead: 0 50% Excess	Circ cement to surface is a NMOCD requirement
17 1/2 "	1,460	Rustler	1,460	8.4 ppg	54.5# J-55 LTC	Top of Tail: 1185'	Casing must be set 25' into the Rustler
	1,485	SURF CSG PT	1,485	Fresh	+/- 12 Bowsprings	20% Excess	MUD: Fresh water only
12 1/4 "				9 ppg	1 joint shoe track		
	1,754	Solado	1,754	DRLOUT MW	9 5/8 "	LEAD: 11 PPG Top of Lead: 0'	Circ cement to surface is a NMOCD requirement
	3,465	Yates	3,453	9.5 ppg	40# J-55 LTC	Top of Tail: 4213'	
	4,756	Capitan Reef	4,730	Cut Brine		20% Excess	
	5,181	Cherry Canyon	5,151	TD MW	+/- 9 Bowsprings		
8 3/4 " VERTICAL	5,281	INTRM CSG PT	5,251	9.5 ppg	1 joint shoe track		
	5,805	Brushy Canyon	5,768	DRLOUT MW			
	7,488	Bone Spring	7,434	9.2 ppg			
	8,234	Avalon	8,172	Cut Brine			
	8,795	1st BS Sand	8,727	KOP MW			
8 3/4 " CURVE	9,325	KOP	9,257	9.5 ppg	EOC	Float collar @ KOP	
	9,362	2nd BS Sand	9,294	Cut Brine	Lat MW 9.2 ppg	OBM	
	10,075	EOC	9,734	9.5	TD MW 9.2 ppg		
8 3/4 " LATERAL							20,029 ' MD
							10,171 ' VS
							9,734 ' TVD
DIRECTIONAL PLAN				Lat. Azi = VS Azi. = 359.6° Est BHST = 162°F, Est BHCT = 145°F			
MD	INC	INC	TVD	ANNOTATION	5 1/2 "	LEAD: 10.7 PPG Top of Lead: 0 50% Excess	BHL: 100 FNL, 330 FEL
					20# P-110 HC GBCD	TAIL: 14.8 PPG Top of Tail: 9325 20% Excess	Expected Btm Hole Pressure 4672.32 psi
				1 15' pup joints		All aqueous fluids (spacer and disp) left inside or outside of pipe must have biocide & corrosion inhibitor	
				2 20' Marker Jts			
				+/- 33 Bowsprings			
				+/- 27 Doublebows			
				+/- 237 Solid Bodies			

Preliminary

DIRECTIONS TO LOCAITON:

PROPOSAL#: 240625130929-A



CEMENT PROCEDURE & PROPOSAL

PREPARED FOR:

Mr. Braden Harris

EMAIL: braden@avantnr.com

PHONE NUMBER: 406-600-3310

Avant Natural Resources

Emerald Federal Com #516H

Lea County, NM

Rig: H&P 460

Service Point

Odessa

1400 S JBS Parkway Odessa, TX 79766

432-701-8955

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Jon Reynolds

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.Disclaimer Notice:

The ability of West Texas Cementers to complete this work is subject to the availability of the raw materials required to complete the job.

This information is presented in good faith, but no warranty is given by and West Texas Cementers LLC assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on input data provided by the Operator and estimates as to unknown data and can be no more accurate than the model, the assumptions and such input data. The information presented is WTC LLC best estimate of the actual results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which West Texas Cementers LLC can assist in selecting. The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly. Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Freedom from infringement of patents of West Texas Cementers LLC or others is not to be inferred.

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VERSION: v0.29b

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H₂S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:

- Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator

- Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escapes packs — 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

- H₂S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
 - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - c. Two wind socks will be placed in strategic locations, visible from all angles.



- Mud program:
The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.
- Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- Communication:
Communication will be via cell phones and land lines where available.

Company Personnel to be Notified

John Harper, Vice President of Geoscience	Office: (720) 746-5045
	Mobile: (678) 988-6644
Braden Harris, Engineer	Mobile: (406) 600-3310

Local & County Agencies

Maljamar Volunter Fire Department	911 or (575) 676-4100
Lea County Sheriff (Lovington)	911 or (575) 396-3611
Lea County Emergency Management (Lovington)	(575) 396-8602
Lea Regional Medical Center Hopital (Hobbs)	(575) 492-5000

State Agencies

NM State Police (Hobbs)	(575) 392-5588
NM Oil Conservation (Hobbs)	(575) 370-3186
NM Oil Conservation (Santa Fe)	(505) 476-3440
NM Dept. of Transportation (Roswell)	(575) 637-7201



Federal Agencies

BLM (Carlsbad)	(575) 234-5972
BLM (Hobbs)	(575) 393-3612
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063
	(214) 665-6444

Veterinarians

Lovington Veterinary Clinic	(575) 396-7387
Hobbs Animal Clinic	(575) 392-5563
Dal Paso Animal Hospital (Hobbs)	(575) 397-2286

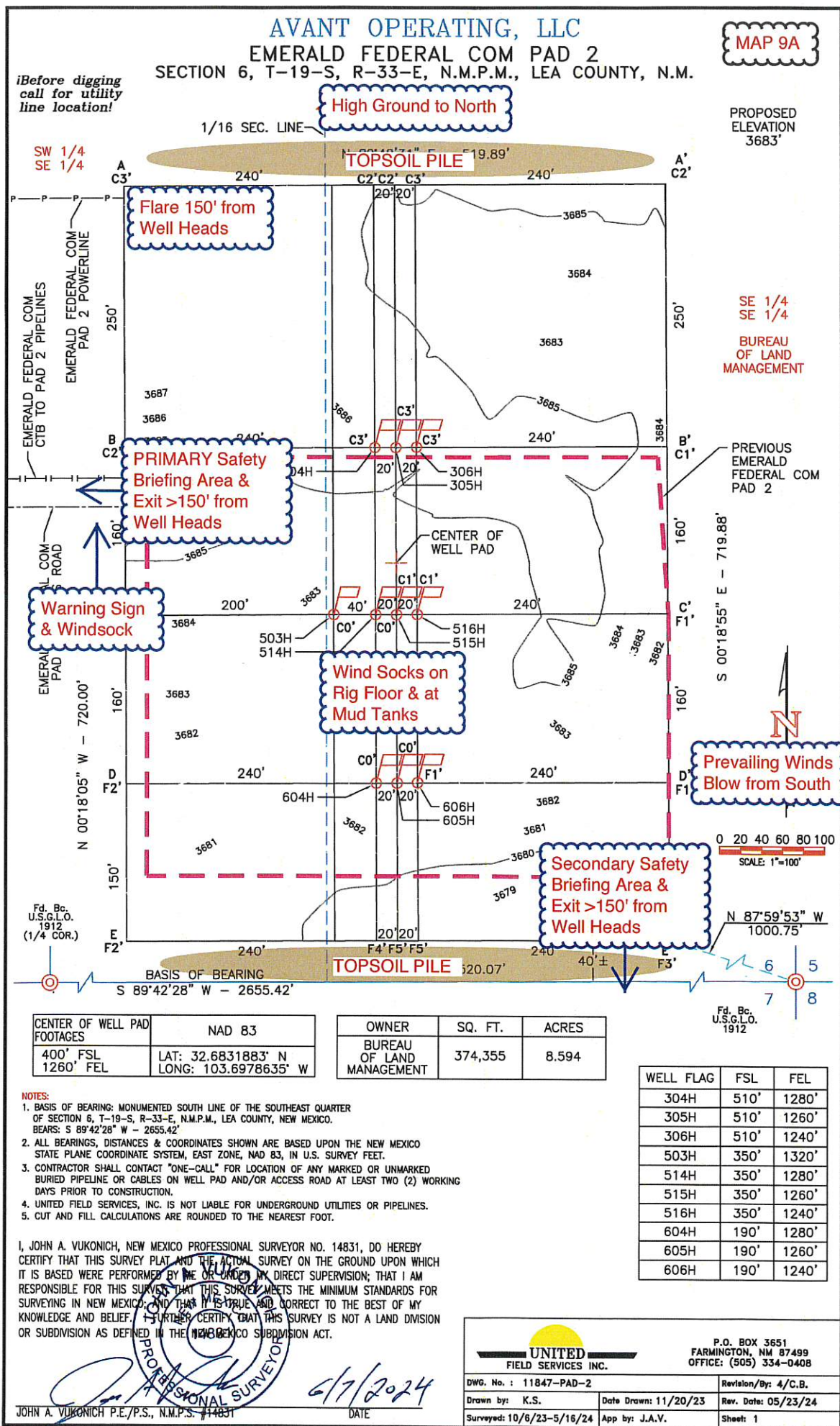
Residents within 2 miles

None

Air Evacuation

AeroCare (Lubbock)	(800) 627-2376
Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256

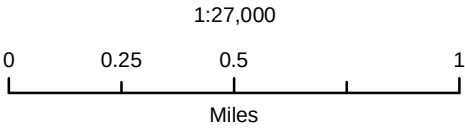
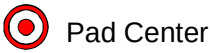




Avant Operating, LLC

**Emerald Federal Com
Pad 2
H2S Contingency Plan:
Radius Map**

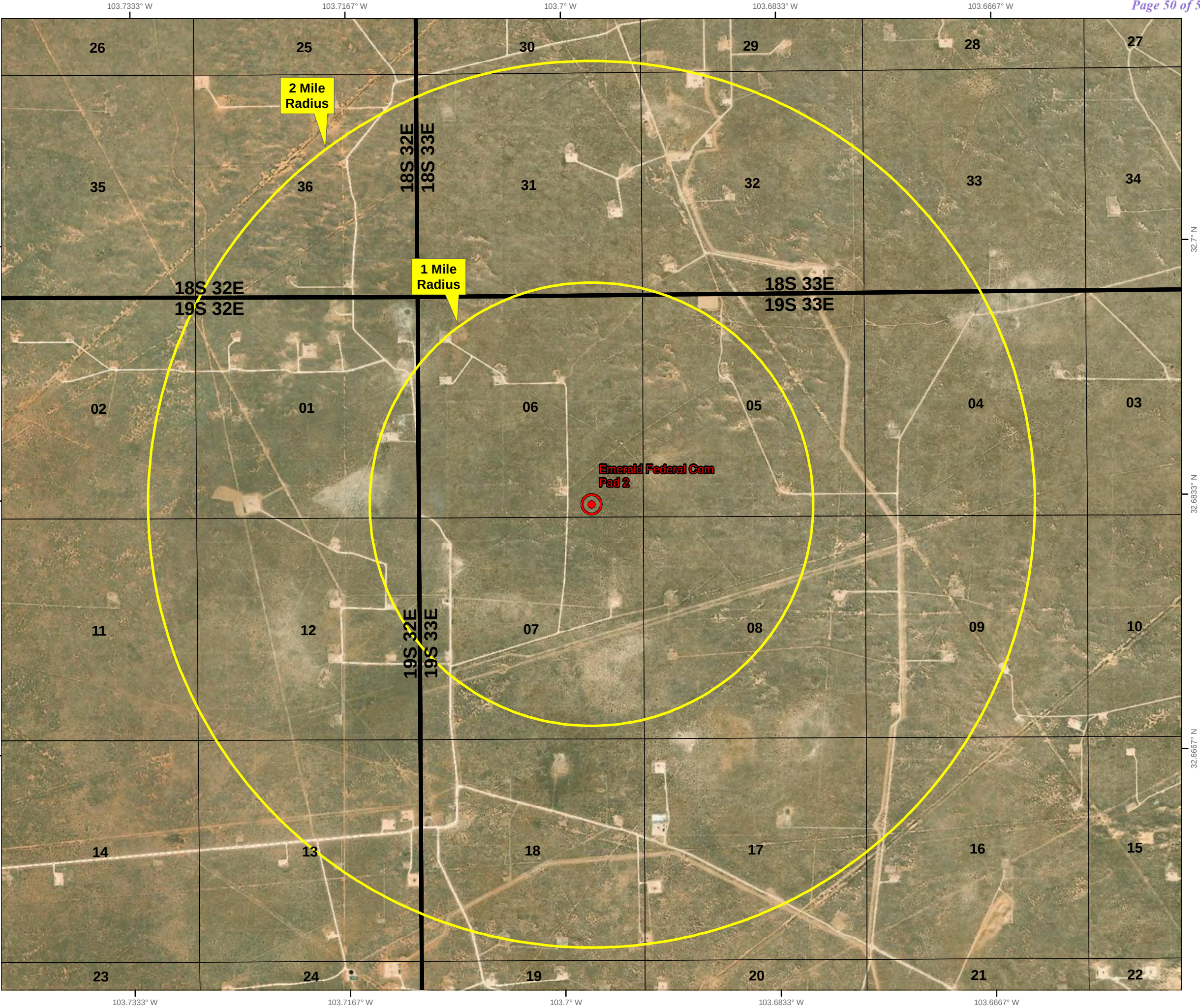
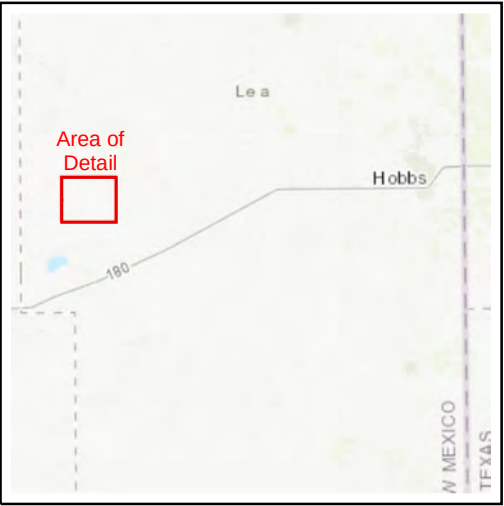
Section 6, Township 19S, Range 33E
Lea County, New Mexico



NAD 1983 New Mexico State Plane East
FIPS 3001 Feet



Prepared by Permits West, Inc., February 20, 2024
for Avant Operating, LLC



Avant Natural Resources
 Emerald Federal Com #516H
 Lea County, NM
 Rig: H&P 460

Surface



PROPOSAL#: 240625130929-A

WELL INFORMATION						
MUD	8.4# Fresh Water					
PREVIOUS PIPE	20" 94# CSG to 120					
OPEN HOLE	17.5" OH to 1485					
CASING/INJECTION	13.375" 54.5# J-55/LTC to 1485					
MD	1485					
EST BHST/BHCT	92-F / 85-F (0.8-F/100-FT)					
NOTES	Standby charges start after WTC has been on location for more than 4-hrs.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	120	19.124	13.375		0.1815	21.8
Lead	1065	17.5	13.375	50%	0.1856	197.6
Tail	300	17.5	13.375	20%	0.1485	44.5
SHOE JOINT	40	13.375	12.615		0.1546	6.2
FLUIDS						
SPACER						
Fresh Water						
VOLUME	20-bbl					
Lead						
35% B_Poz+65% Class C+6% Gel+5% SALT+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A						
VOLUME	650-SX		Slurry Volume: 220-bbls			
DENSITY	12.8-ppg		Mix Water Required: 158-bbls			
YIELD	1.9-cf/sx					
MIX WATER	10.17-gps					
TOP OF CEMENT	Surface					
EXCESS	50%					

Avant Natural Resources
Emerald Federal Com #516H
Lea County, NM
Rig: H&P 460

Surface



PROPOSAL#: 240625130929-A

Tail		
100% Class C+1% CaCl2+0.005GPS NoFoam V1A		
VOLUME	215-SX	Slurry Volume: 50.9-bbls
DENSITY	14.8-ppg	Mix Water Required: 33-bbls
YIELD	1.33-cf/sx	
MIX WATER	6.34-gps	
TOP OF CEMENT	1185-ft	
EXCESS	20%	
DISPLACEMENT		
Displacement		
VOLUME	223.4-bbl	

Avant Natural Resources
 Emerald Federal Com #516H
 Lea County, NM
 Rig: H&P 460

Intermediate



PROPOSAL#: 240625130929-A

WELL INFORMATION						
MUD	9.5# Cut Brine					
PREVIOUS PIPE	13.375" 54.5# CSG to 1485					
OPEN HOLE	12.25" OH to 5281					
CASING/INJECTION	9.625" 40# J-55/LTC to 5281					
MD	5281					
TVD	5251					
EST BHST/BHCT	123-F / 107-F (0.8-F/100-FT)					
NOTES	Standby charges start after WTC has been on location for more than 4-hrs.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	1485	12.615	9.625		0.0646	95.9
Lead	2728	12.25	9.625	50%	0.0837	228.2
Tail	1068	12.25	9.625	20%	0.0669	71.5
SHOE JOINT	40	9.625	8.835		0.0758	3.0
FLUIDS						
SPACER						
Fresh Water						
VOLUME	25-bbl					
Lead						
35% B_Poz+65% Class C+6% Gel+5% SALT+0.5% R-1300+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A						
VOLUME	960-SX				Slurry Volume: 324.9-bbls	
DENSITY	12.8-ppg				Mix Water Required: 233-bbls	
YIELD	1.9-cf/sx					
MIX WATER	10.18-gps					
TOP OF CEMENT	Surface					
EXCESS	50%					

Avant Natural Resources
Emerald Federal Com #516H
Lea County, NM
Rig: H&P 460

Intermediate



PROPOSAL#: 240625130929-A

Tail		
	100% Class C+5% SALT+0.005GPS NoFoam V1A	
VOLUME	310-SX	Slurry Volume: 75.1-bbls
DENSITY	14.8-ppg	Mix Water Required: 49-bbls
YIELD	1.36-cf/sx	
MIX WATER	6.51-gps	
TOP OF CEMENT	4213-ft	
EXCESS	20%	
DISPLACEMENT		
	Displacement	
VOLUME	397.4-bbl	

Avant Natural Resources
 Emerald Federal Com #516H
 Lea County, NM
 Rig: H&P 460

Production



PROPOSAL#: 240625130929-A

WELL INFORMATION						
MUD	9.2# OBM					
PREVIOUS PIPE	9.625" 40# CSG to 5281					
OPEN HOLE	8.75" OH to 20029					
CASING/INJECTION	5.5" 20# P-110 HC/GBCD to 20029					
MD	20029					
TVD	9734					
EST BHST/BHCT	211-F / 194-F (1.34-F/100-FT)					
KOP	9325					
NOTES	Standby charges start after WTC has been on location for more than 8-hrs.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	5281	8.835	5.5		0.0464	245.2
Lead	4044	8.75	5.5	50%	0.0675	272.9
Tail	10704	8.75	5.5	20%	0.0540	577.8
SHOE JOINT	80	5.5	4.778		0.0222	1.8
FLUIDS						
SPACER						
Wt. Spacer 38.01GPB Water+8PPB PolyScrub 4320+73.29PPB Barite+1GPB HoleScrub 4311+1PPB R-1300						
VOLUME	40-bbl					
DENSITY	9.7-ppg					
Lead						
100% ProLite+5PPS Plexcrete STE+2% SMS+0.65% R-1300+0.2% FL-24+3PPS Gilsonite+0.005GPS NoFoam V1A						
VOLUME	865-SX				Slurry Volume: 520.7-bbls	
DENSITY	10.7-ppg				Mix Water Required: 434-bbls	
YIELD	3.38-cf/sx					
MIX WATER	21.06-gps					
TOP OF CEMENT	Surface					
EXCESS	50%					

Avant Natural Resources
Emerald Federal Com #516H
Lea County, NM
Rig: H&P 460

Production



PROPOSAL#: 240625130929-A

Tail		
50% B_Poz+50% Class H+5% SALT+0.05% RCKCAS-100+0.75% FR-5+0.5% FL-24+0.005GPS NoFoam V1A		
VOLUME	2690-SX	Slurry Volume: 579.7-bbls
DENSITY	14.5-ppg	Mix Water Required: 339-bbls
YIELD	1.21-cf/sx	
MIX WATER	5.28-gps	
TOP OF CEMENT	9325-ft	
EXCESS	20%	
DISPLACEMENT		
Fresh Water+ 0.25GPT Plexicide 24L+1GPT Corplex		
VOLUME	442.4-bbl	
DENSITY	8.34-ppg	

CHEMICAL DESCRIPTIONS		
CHEMICAL NAME	CODE	DESCRIPTION
B_Poz	WTC228	Poz - Fly Ash, Extender
Class H	WTC101	API Cement
Class C	WTC100	API Cement
M_Poz	WTC280	Poz - Fly Ash, Extender
ProLite		Blended Based Cement
Plexcrete SFA	WTC129	Cement Strength Enhancer
Gel	WTC102	Extender
Micro Crystal	WTC212	Cement Strength Enhancer
Micro Shell	WTC209	Cement Strength Enhancer
WTC1	WTC250	Extender
GB-52	WTC008	Microspheres, Extender
Plexcrete STE	WTC127	Cement Strength Enhancer
CSE-NP	WTC236	Cement Strength Enhancer
Gypsum	WTC111	Free Water Control, Extender
CaCl ₂	WTC112	Accelerator
SMS	WTC115	Free Water Control, Extender
RCKCAS-100	WTC276	Free Water Control, Anti-Settling Agent
R-1300	WTC201	Low Temperature Retarder
CRT-201	WTC278	Lignosulfonate Retarder
FR-5	WTC258	Lignosulfonate Retarder
C-37	WTC224	Dispersant, Friction Reducer
CFL-312	WTC265	Fluid Loss and Gas Migration Control
FL-24	WTC277	Fluid Loss (polymers/copolymers - 300-F max)
FL-17	WTC130	Fluid Loss and Gas Migration Control (400-F max)
MagBond	WTC271	Expanding Agent
Gilsonite	WTC003	Premium Lost Circulation Material, Free Water Control
Pol-E-Flake	WTC106	Lost Circulation Material
Web Seal	WTC133	Premium Fiber Lost Circulation Material
Zone Seal	WTC207	Premium Lost Circulation Material
NoFoam V1A	WTC105	Liquid Defoamer
Water		Fresh Water
PolyScrub 4320	WTC232	Spacer Gelling Agent
Barite	WTC116	Weighting Agent
HoleScrub 4311	WTC281	Surfactant
HoleScrub 4305	WTC213	Surfactant
HoleScrub 4308	WTC215	Surfactant
Soda Ash	WTC164	pH Control
R-1300	WTC201	Low Temperature Retarder
RCKCAS-100	WTC276	Free Water Control, Anti-Settling Agent
Sugar	WTC119	Retarder
R-33	WTC243	Lignosulfonate Retarder
Plexcide 24L	WTC166	Biocide
Corplex	WTC134	Corrosion Inhibitor
Clay Max	WTC096	KCL Substitute
Zone Seal	WTC207	Premium Lost Circulation Material

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 422870

CONDITIONS

Operator: Avant Operating, LLC 6001 Deauville Blvd Midland, TX 79706	OGRID: 330396
	Action Number: 422870
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Administrative order required for non-standard spacing unit prior to production.	4/11/2025
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	4/11/2025