

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.	
2. Name of Operator		9. API Well No. 30-025-55244	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	
13. State		15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	
16. No of acres in lease		17. Spacing Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth	
20. BLM/BIA Bond No. in file		21. Elevations (Show whether DF, KDB, RT, GL, etc.)	
22. Approximate date work will start*		23. Estimated duration	
24. Attachments			
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Office	
Application approval 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. Conditions of approval, if any, are attached.			
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.			

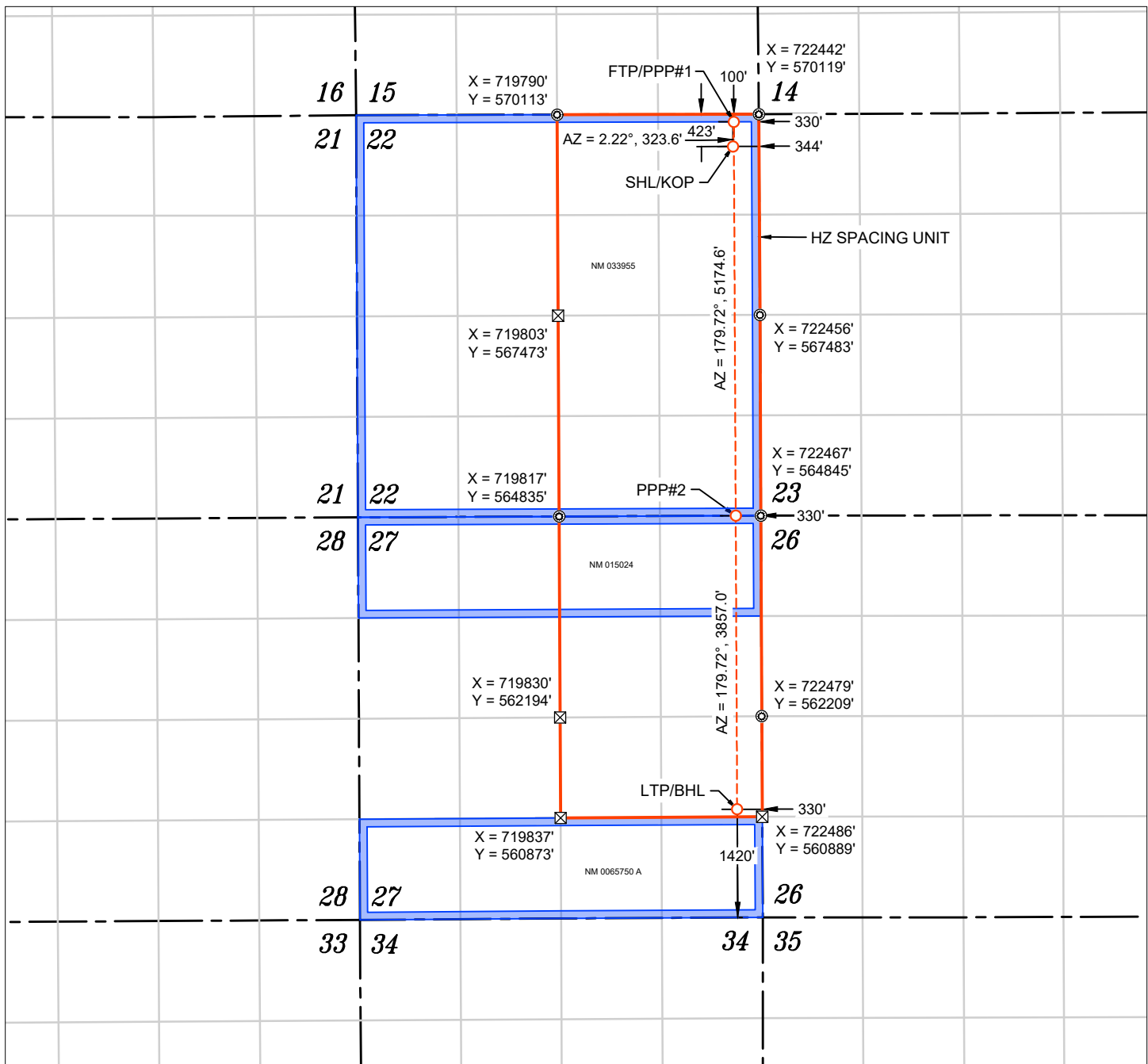
(Continued on page 2)

*(Instructions on page 2)



Approval Date: 08/06/2025

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.



WELL NAME: THAI CURRY 22 27 FED COM #301H
ELEVATION: 3532'

NAD 83 (SHL/KOP) 423' FNL & 344' FEL
LATITUDE = 32.564778°
LONGITUDE = -103.746586°
NAD 27 (SHL/KOP)
LATITUDE = 32.564656°
LONGITUDE = -103.746090°
STATE PLANE NAD 83 (N.M. EAST)
N: 569695.16' E: 722099.70'
STATE PLANE NAD 27 (N.M. EAST)
N: 569633.06' E: 680919.26'

NAD 83 (FTP/PPP#1) 100' FNL & 330' FEL
LATITUDE = 32.565667°
LONGITUDE = -103.746540°
NAD 27 (FTP/PPP#1)
LATITUDE = 32.565545°
LONGITUDE = -103.746044°
STATE PLANE NAD 83 (N.M. EAST)
N: 570018.52' E: 722112.21'
STATE PLANE NAD 27 (N.M. EAST)
N: 569956.41' E: 680931.78'

APPROXIMATE WELL BORE DISTANCE FROM FTP TO LTP	
NM 033955	5174.55'
NM 015024	1318.48'
S2/N2 & N2/S2 SEC 27	2538.51'
TOTAL	9031.54'

NAD 83 (PPP#2) 330' FEL
LATITUDE = 32.551444°
LONGITUDE = -103.746552°
NAD 27 (PPP#2)
LATITUDE = 32.551322°
LONGITUDE = -103.746056°
STATE PLANE NAD 83 (N.M. EAST)
N: 564844.03' E: 722137.12'
STATE PLANE NAD 27 (N.M. EAST)
N: 564782.05' E: 680956.55'

NAD 83 (LTP/BHL) 1420' FSL & 330' FEL
LATITUDE = 32.540842°
LONGITUDE = -103.746560°
NAD 27 (LTP/BHL)
LATITUDE = 32.540720°
LONGITUDE = -103.746065°
STATE PLANE NAD 83 (N.M. EAST)
N: 560987.09' E: 722155.92'
STATE PLANE NAD 27 (N.M. EAST)
N: 560925.21' E: 680975.24'

FOUND MONUMENT
CALC. CORNER
SHL/ KOP/ FTP / PPP/ LTP / BHL
WELLBORE
HORIZONTAL SPACING UNIT
STATE OIL & GAS LEASE
BLM OIL & GAS LEASE

NOTES

1. ALL COORDINATES, BEARINGS, AND DISTANCES CONTAINED HEREIN ARE GRID, BASED UPON THE NEW MEXICO STATE PLANE COORDINATES SYSTEM, NORTH AMERICAN DATUM 83, NEW MEXICO EAST (3001).
2. THIS DOCUMENT IS BASED UPON AN ON THE GROUND SURVEY PERFORMED DURING MARCH, 2025. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS EASEMENT IN RELATION TO RECORDED MONUMENT OF DEEDS PROVIDED BY THE CLIENT.
3. ELEVATIONS MSL, DERIVED FROM G.N.S.S. OBSERVATION AND DERIVED FROM SAID ON-THE-GROUND SURVEY.



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Avant Operating II, LLC **OGRID:** 332947 **Date:** 08/15/2025

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Thai Curry 22-27 Fed Com 301H		A-22-T20S-R32E	423FNL/344FEL	762 BBL/D	1168 MCF/D	2000 BBL/D
Thai Curry 22-27 Fed Com 302H		A-22-T20S-R32E	421FNL/404FEL	762 BBL/D	1168 MCF/D	2000 BBL/D
Thai Curry 22-27 Fed Com 303H		A-22-T20S-R32E	420FNL/424FEL	762 BBL/D	1168 MCF/D	2000 BBL/D
Thai Curry 22-27 Fed Com 401H		A-22-T20S-R32E	417FNL/484FEL	893 BBL/D	1210 MCF/D	2500 BBL/D
Thai Curry 22-27 Fed Com 402H		A-22-T20S-R32E	418FNL/464FEL	893 BBL/D	1210 MCF/D	2500 BBL/D
Thai Curry 22-27 Fed Com 501H		A-22-T20S-R32E	424FNL/324FEL	657 BBL/D	777 MCF/D	1500 BBL/D
Thai Curry 22-27 Fed Com 502H		A-22-T20S-R32E	422FNL/364FEL	657 BBL/D	777 MCF/D	1500 BBL/D
Thai Curry 22-27 Fed Com 503H		A-22-T20S-R32E	421FNL/404FEL	657 BBL/D	777 MCF/D	1500 BBL/D
Thai Curry 22-27 Fed Com 801H		A-22-T20S-R32E	425FNL/304FEL	1168 BBL/D	2189 MCF/D	3000 BBL/D

IV. Central Delivery Point Name: Thai Curry CTB [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Thai Curry 22-27 Fed Com 301H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026
Thai Curry 22-27 Fed Com 302H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026
Thai Curry 22-27 Fed Com 303H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026
Thai Curry 22-27 Fed Com 401H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026
Thai Curry 22-27 Fed Com 402H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026
Thai Curry 22-27 Fed Com 501H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026
Thai Curry 22-27 Fed Com 502H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026
Thai Curry 22-27 Fed Com 503H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026
Thai Curry 22-27 Fed Com 801H		11/11/2025	12/22/2025	01/01/2026	02/01/2026	02/01/2026

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☒ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☒ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☒ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:



Printed Name: John Harper

Title: SVP – Assets and Exploration

E-mail Address: John@avantnr.com

Date: 08/15/25

Phone: 678-988-6644

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:

Title:

Approval Date:

Conditions of Approval:

Avant Operating II, LLC Natural Gas Management Plan

- VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Avant Operating, LLC (Avant) will take the following actions to comply with the regulations listed in 19.15.27.8:
- A. Avant will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. Avant will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas.
 - B. All drilling operations will be equipped with a rig flare located at least 100' from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
 - C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flowback will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. Avant will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will be analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
 - D. Avant will comply with the performance standards requirements and provisions listed in 19.15.27.8 (1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. Avant will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
 - E. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. Avant will install equipment to measure



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

08/07/2025

APD ID: 10400104388

Submission Date: 04/15/2025

Highlighted data
reflects the most
recent changes

Operator Name: AVANT OPERATING II LLC

Well Name: THAI CURRY 22 27 FED COM

Well Number: 301H

Well Type: OIL WELL

Well Work Type: Drill

[Show Final Text](#)

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
16179139	QUATERNARY	3532	0	0	OTHER : Caliche	USEABLE WATER	N
16179140	RUSTLER	2560	972	972	ANHYDRITE	NONE	N
16179141	YATES	833	2699	2702	SANDSTONE	NATURAL GAS, OIL	N
16179142	CAPITAN REEF	412	3120	3126	LIMESTONE	USEABLE WATER	N
16179143	CHERRY CANYON	-1261	4793	4810	SANDSTONE	NONE	N
16179144	BRUSHY CANYON	-2518	6050	6072	SANDSTONE	NATURAL GAS, OIL	N
16179145	BONE SPRING	-4152	7684	7706	LIMESTONE	NATURAL GAS, OIL	N
16179146	BONE SPRING 1ST	-5229	8761	8825	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 15000

Equipment: A minimum 5M system will be used. The minimum blowout preventer equipment (BOPE) shown in the BOP Diagram will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer, and an annular preventer (5000-psi WP). Both units will be hydraulically operated, and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOPE will be tested in accordance with 43 CFR 3172.

Requesting Variance? YES

Variance request: Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Co-flex line will be tested in accordance with highest BOP test pressures (5000 psi) before drilling out of surface casing and (5000 psi) before drilling out of intermediate casing. Pressure tests will be charted for records. The manufacturers hydrostatic test report will be kept on location for inspection.

Testing Procedure: Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000 (high) / 250 (low) psig and the annular preventer to 3500 (high) / 250 (low) psig by an independent service company. Test charts will always be kept on location. Surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000 (high) / 250 (low) psig and the annular preventer to 3500 (high) / 250 (low) psig by an independent service company. Test charts will always be kept on location. Intermediate casing will

Operator Name: AVANT OPERATING II LLC**Well Name:** THAI CURRY 22 27 FED COM**Well Number:** 301H

be tested to 1500 psi for 30 minutes. A solid steel body pack-off will be used after running and cementing the intermediate casing. After installation, pack-off and lower flange will be pressure tested to 5000 psi. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe. This pressure test will be repeated at least once every 30 days, as per 43 CFR 3172. Kelly cock will always be in the drill string. Full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will always be on the rig floor. The multi-bowl wellhead will be installed by a third-party welder while being monitored by the vendors representative. All BOP equipment will be tested using a conventional test plug - not a cup or J-packer type. Both the surface and intermediate casing strings will be tested as per 43 CFR 3172.to at least 0.22 psi/ft or 1500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield.

Choke Diagram Attachment:

5M_Choke_Diagram_20250409144341.pdf

BOP Diagram Attachment:

5M_BOP_Diagram_20250409144345.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	997	0	997	3532	2535	997	J-55	54.5	LT&C	1.25	1.25	DRY	1.6	DRY	1.6
2	INTERMEDIATE	12.25	10.75	NEW	API	N	0	2802	0	2799	3532	733	2802	J-55	40.5	LT&C	1.25	1.25	DRY	1.6	DRY	1.6
3	INTERMEDIATE	9.875	8.625	NEW	NON API	N	0	4760	0	4743	3532	-1211	4760	HCL-80	32	OTHER - BK	1.25	1.25	DRY	1.6	DRY	1.6
4	PRODUCTION	7.875	5.5	NEW	NON API	N	0	17800	0	8891	3532	-5359	17800	HCP-110	20	OTHER - GB CD	1.25	1.25	DRY	1.6	DRY	1.6

Casing Attachments

Operator Name: AVANT OPERATING II LLC

Well Name: THAI CURRY 22 27 FED COM

Well Number: 301H

Casing Attachments

Casing ID: 1	String	SURFACE
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
TC_BS_CASING_ASSUMPTIONS_v2_20250603085417.pdf		
Casing ID: 2	String	INTERMEDIATE
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
TC_BS_CASING_ASSUMPTIONS_v2_20250603085426.pdf		
Casing ID: 3	String	INTERMEDIATE
Inspection Document:		
Spec Document:		
8.625in_32.0__L_80_HC_BK__9.00in_OD__20250603085623.pdf		
Tapered String Spec:		
Casing Design Assumptions and Worksheet(s):		
TC_22_27_Fed_Com_301H_Prelim_WBS_v2_20250603085637.pdf		

Operator Name: AVANT OPERATING II LLC

Well Name: THAI CURRY 22 27 FED COM

Well Number: 301H

Casing Attachments

Casing ID: 4 String PRODUCTION

Inspection Document:

Spec Document:

5.5in_GBCD_Casing_Spec_20250409155853.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

TC_BS_CASING_ASSUMPTIONS_v2_20250603085728.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	997	415	1.76	12.8	730	50	35% M_Poz+65% Class C	4% Gel+5% SALT+0.1% SMS+0.25PPS Pol-E-Flake+0.005GPS
SURFACE	Tail		697	997	215	1.33	14.8	286	20	100% Class C	1% CaCl2+0.005GPS NoFoam V1A
INTERMEDIATE	Lead		0	2802	295	1.76	12.8	519	20	35% M_Poz+65% Class C	4% Gel+5% SALT+0.1% SMS+0.25PPS Pol-E-Flake+0.005GPS
INTERMEDIATE	Tail		2241	2802	110	1.36	14.8	149	20	100% Class C	5% SALT+0.005GPS NoFoam V1A
INTERMEDIATE	Lead		0	4760	320	1.76	12.8	563	20	35% M_Poz+65% Class C	4% Gel+5% SALT+0.1% SMS+0.15% R-1300+0.25PPS Pol-E-Flake+0.005GPS
INTERMEDIATE	Tail		3808	4760	120	1.37	14.8	165	20	100% Class C	5% SALT+0.4% CRT-201+0.005GPS NoFoam V1A
INTERMEDIATE	Lead	3000	0	4760	220	1.76	12.8	387	136	35% M_Poz+65% Class C	4% Gel+5% SALT+0.1% SMS+0.2PPS Pol-E-Flake+0.005GPS
INTERMEDIATE	Tail		2640	4760	100	1.33	14.8	133	325	100% Class C	0.005GPS NoFoam V1A

Operator Name: AVANT OPERATING II LLC

Well Name: THAI CURRY 22 27 FED COM

Well Number: 301H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		5300	1780 0	170	3.28	10.7	558	0	100% ProLiteM	5PPS Plexcrete STE+2% SMS+0.65% R-1300+0.2% FL- 24+3PPS Gilsonite+0.005GPS NoFoam V1A
PRODUCTION	Tail		8435	1780 0	1350	1.27	14.5	1633	0	50% B_Poz+50% Class H	5% SALT+0.3% SMS+0.4% CRT- 201+0.5% FL- 24+0.005GPS NoFoam

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with 43 CFR 3172:

Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase requirements will always be kept on site.

Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) mud system will monitor pit volumes for gains or losses, flow rate, pump pressures, and stroke rate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	997	OTHER : Freshwater	8.4	9.9							
997	2802	OTHER : Brine	10	10							
2802	4760	OTHER : Freshwater	8.4	8.4							
4760	8435	OTHER : Cut Brine	9	9.5							
8435	9776	OIL-BASED MUD	9.5	9.5							

Operator Name: AVANT OPERATING II LLC**Well Name:** THAI CURRY 22 27 FED COM**Well Number:** 301H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
9776	1780 0	OIL-BASED MUD	9.5	9.5							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

GR log will be acquired by MWD tools throughout the well.

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY,GAMMA RAY LOG,

Coring operation description for the well:

No core or open hole or cased hole log is planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4090

Anticipated Surface Pressure: 2133

Anticipated Bottom Hole Temperature(F): 154

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Thai_Curry_H2S_Packet_20250409145817.pdf

Operator Name: AVANT OPERATING II LLC**Well Name:** THAI CURRY 22 27 FED COM**Well Number:** 301H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

TC_22_27_Fed_Com_301H_Plan_0.1_AC_20250409150418.pdf

TC_22_27_Fed_Com_301H_Plan_0.1_Report_20250409150413.pdf

Other proposed operations facets description:

Avant will be using Figure E from R111Q for your reference. All casing strings below the conductor will be pressure tested to 0.22 psi/ft x casing string length, or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. If pressure declines more than 10% in 30 minutes, then corrective action will be taken.

Other proposed operations facets attachment:

Avant_4_String_R_111_Q_Multi_Bowl_Wellhead_20250409150458.pdf

Avant__Bone_Spring_4_string_R_111_Q__AES_VERT__MP_20250409150454.pdf

Flex_Line_Certification_20250409151139.pdf

Pad_1_Waste_Minimization_Plan_20250507112159.pdf

TC_22_27_Fed_Com_301H_Prelim_WBS_v2_20250603085837.pdf

Thai_Curry_22_27_Fed_Com_301H_Cement_Proposal_20250603085855.pdf

Other Variance request(s)?: Y**Other Variance attachment:**

Avant_Surface_Offline_Cement_Variance_20250409150231.pdf

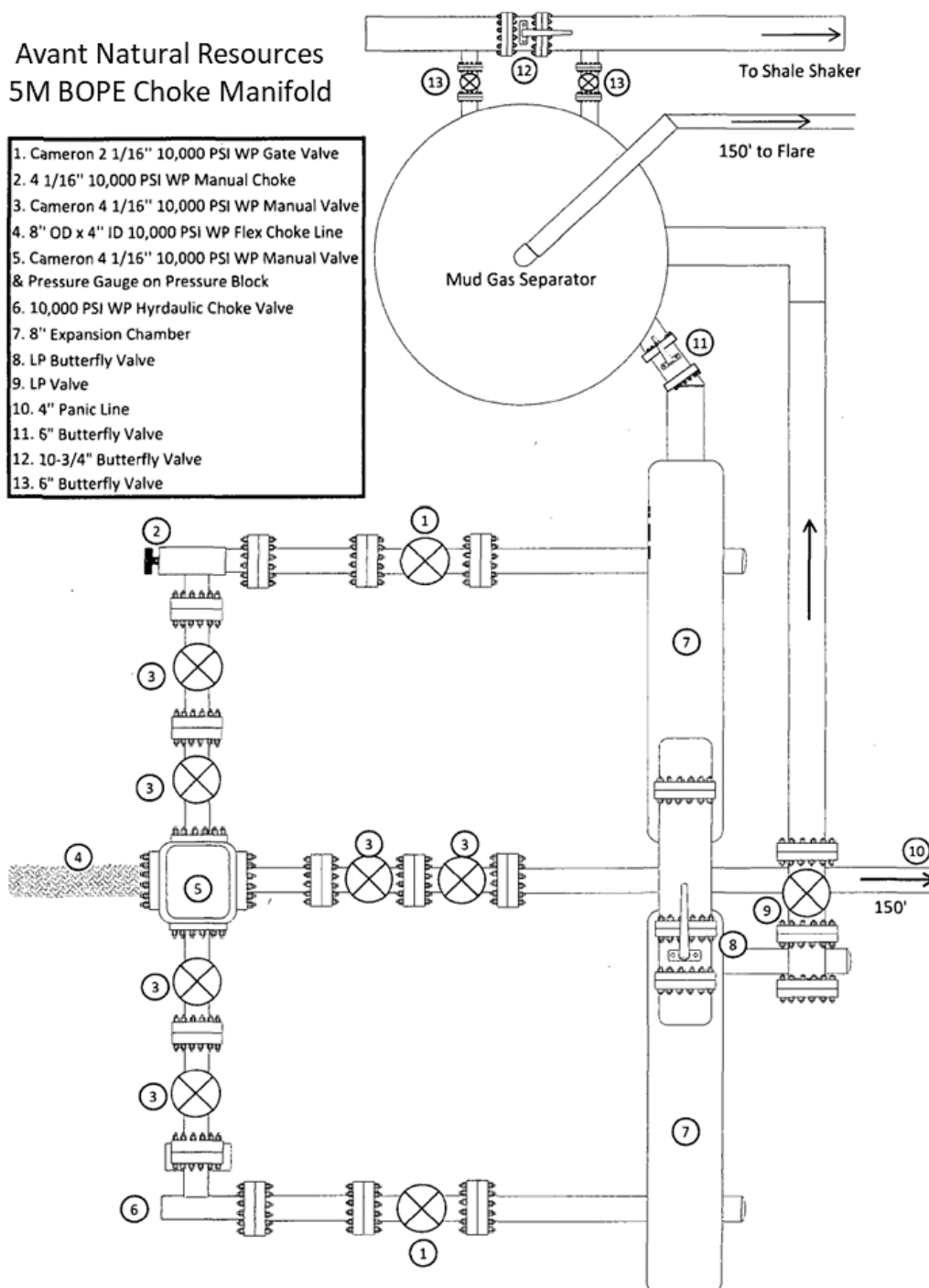
Avant__Offline_Cementing_Procedure_20250409150227.pdf

Thai_Curry_Casing_Variance_Request_20250409150123.pdf

Choke Manifold Diagram

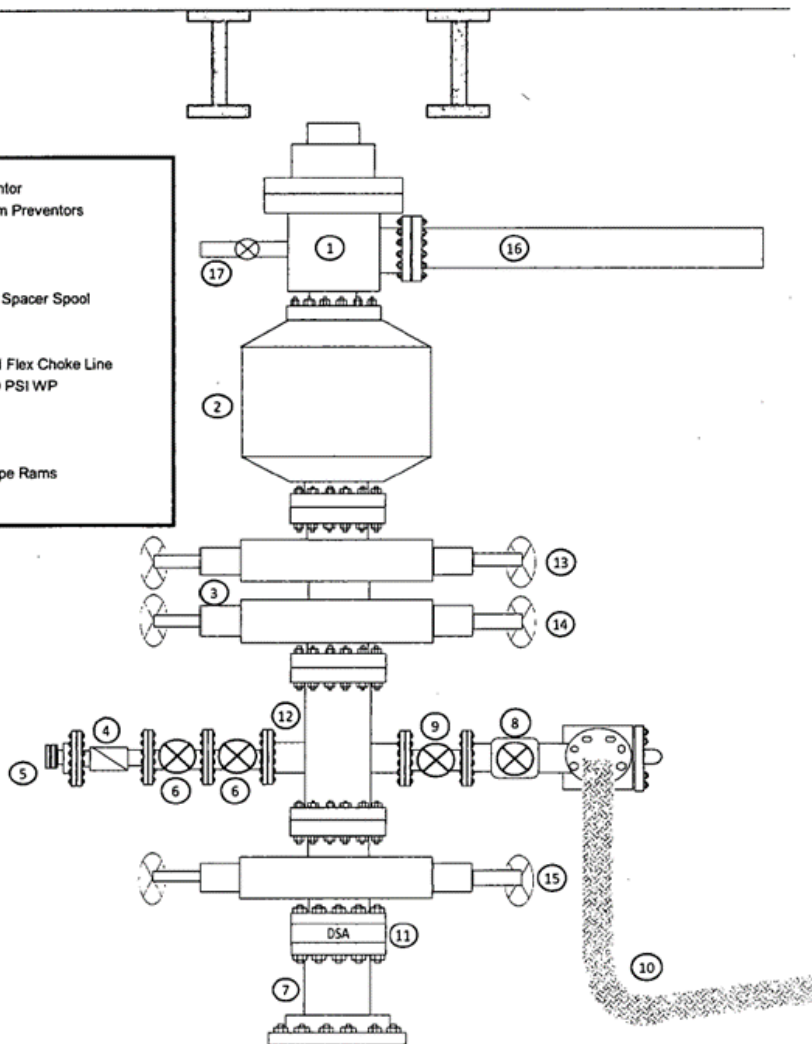
Avant Natural Resources
5M BOPE Choke Manifold

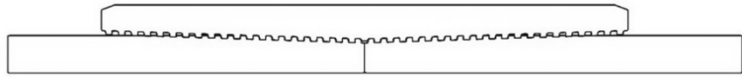
1. Cameron 2 1/16" 10,000 PSI WP Gate Valve
2. 4 1/16" 10,000 PSI WP Manual Choke
3. Cameron 4 1/16" 10,000 PSI WP Manual Valve
4. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
5. Cameron 4 1/16" 10,000 PSI WP Manual Valve & Pressure Gauge on Pressure Block
6. 10,000 PSI WP Hydraulic Choke Valve
7. 8" Expansion Chamber
8. LP Butterfly Valve
9. LP Valve
10. 4" Panic Line
11. 5" Butterfly Valve
12. 10-3/4" Butterfly Valve
13. 6" Butterfly Valve



Avant Natural Resources 5M BOP Diagram

1. 13 5/8" Rotating Head
2. NOV 13 5/8" 5,000 PSI WP GK Annular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 6" OD x 3" ID 10,000 PSI WP Steel Armoured Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams
16. Flow Line
17. 2" Fill Line





Precision Connections BK Special Clearance
8.625 in. 32 lb/ft HC-L80 with 9 in. Coupling OD

Pipe Body

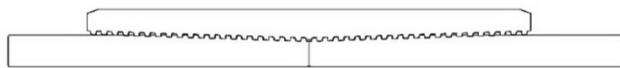
Nominal OD	8.625	inches
Nominal Weight	32.00	lb/ft
Wall Thickness	0.352	inches
Plain End Weight	31.10	lb/ft
Drift	7.875	inches
Nominal ID	7.921	inches
Grade	HC-L80	
Min Yield	80,000	lbf/in ²
Min Tensile	95,000	lbf/in ²
Critical Section Area	9.149	in ²
Pipe Body Yield Strength	732	kips
Min Internal Yield Pressure	5,710	psi
Collapse Pressure	3,820	psi

Connection

Coupling OD	9.000	inches
Coupling Length	9.625	inches
Make Up Loss	4.813	inches
Critical Section Area	7.498	in ²
Internal Pressure Rating	100%	
External Pressure Rating	100%	
Tension Efficiency	82%	
Connection Strength	600	kips
Compression Efficiency	100%	
Uniaxial Bend Rating	40.7	° / 100 ft
Min Make Up Torque	10,000	ft-lbs
Yield Torque	42,350	ft-lbs

v1.2 7/17/2019

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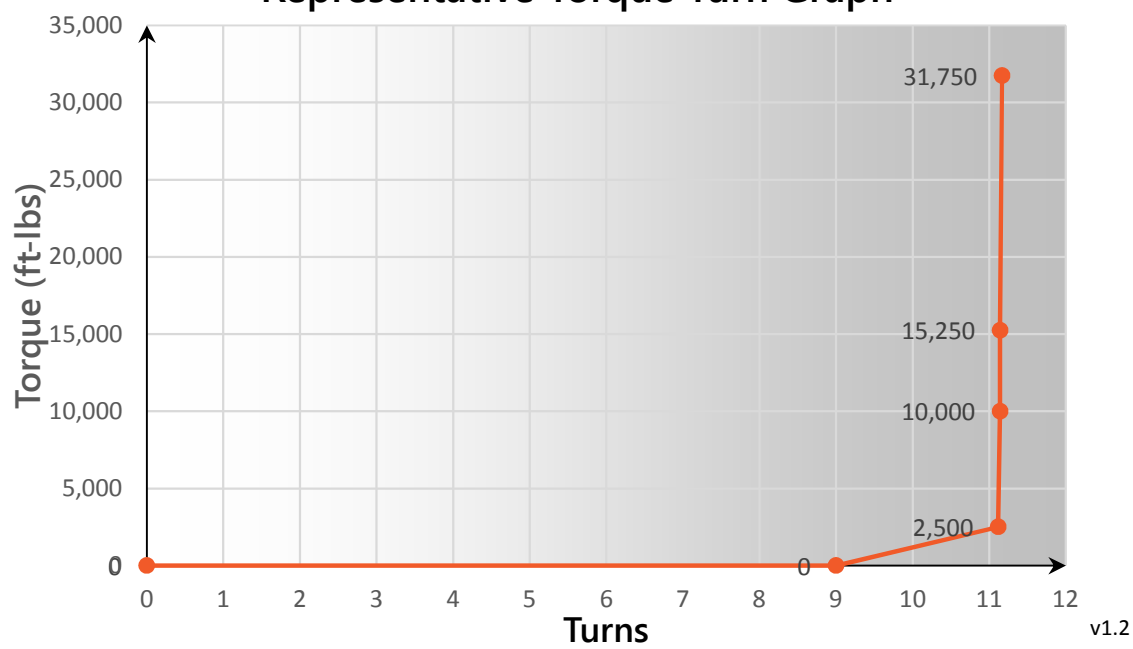


Torque Data Sheet - Precision Connections BK SC

8.625 in. 32 lb/ft HC-L80 with 9 in. Coupling OD

Min Make Up Torque	10,000	ft-lbs	Max Operating Torque	36,000	ft-lbs
Max Make Up Torque	31,750	ft-lbs	Yield Torque	42,350	ft-lbs
Optimum Torque	15,250	ft-lbs			

Representative Torque Turn Graph



v1.2

7/17/2019



PERFORMANCE DATA SHEET

Revised May 2020

5.500" 20.0# IP HCP-110 with GB CD Butt

DIMENSIONAL DATA

Casing OD	5.500 in	Pipe Grade	IP HCP-110
Coupling OD	6.300 in	Coupling Grade	P-110
Pipe Gauge	0.361 in	T&C WPF	20.00 lbs/ft
Drift Diameter	4.653 in	PE WPF	19.83 lbs/ft

MECHANICAL DATA

Pipe IP Yield Minimum	125,000 psi	Collapse Pressure	12,200 psi
Pipe Tensile Minimum	125,000 psi	Pipe Body Internal Yield Pressure	14,360 psi
Coupling Yield Minimum	110,000 psi	Leak at E7 Plane	21,500 psi
Coupling Tensile Minimum	125,000 psi	Pipe Hydrostatic Test @ 80% SMYS	13,100 psi

CONNECTION & PIPE DATA

Thread Name	GB CD Butt	Coupling Thread Fracture Strength	1,013,000 lbs
Joint Strength	685,000 lbs	Pipe Body Plain End Yield	729,000 lbs
Minimum Makeup Torque	10,000 ft-lbs	Pipe Thread Fracture Strength	685,000 lbs
Maximum Make-up Torque	20,000 ft-lbs	Coupling Internal Yield Pressure	16,240 psi
Maximum Operating Torque	33,660 ft-lbs		
Connection Yield Torque	35,440 ft-lbs		

Note:

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CASING DESIGN CRITERIA & LOAD CASE ASSUMPTIONS**SURFACE CASING:**

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
13.375"	54.5# J-55 LTC	12.615	12.459	2730	1130	853	14.375	909	0' - SCP'

Collapse: $DF_c \geq 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_b \geq 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

INTERMEDIATE 1 CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
10.75"	40.5# J-55 LTC	10.05	9.894	3130	1580	629	11.75	0	0' - ICP'

Collapse: $DF_c \geq 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

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- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.
- Gas Kick Profile: Internal burst force at the shoe will be fracture pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be ran above that. External force will be equal to the mud gradient in which the casing will be ran.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

INTERMEDIATE 2 CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
8.625"	32# L-80 HC BK	7.921	7.875	5710	3820	732	9.00	600	0' - 12CP'

Collapse: $DF_c \geq 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_b \geq 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.
- Gas Kick Profile: Internal burst force at the shoe will be fracture pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be ran above that. External force will be equal to the mud gradient in which the casing will be ran.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

PRODUCTION CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
5.5"	20# P-110 HC GBCD	4.778	4.653	12630	11100	641	6.3	667	0' - TD"

Collapse: $DF_c \geq 1.25$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be ran. Internal force equal to gas gradient over one-third of setting depth and mud gradient with which the next hole section will be ran below that.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be ran above that and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B \geq 1.25$

- Pressure Test: 80% of burst casing test with an external force equal to the mud gradient in which the casing will be ran
- Injection Down Casing: 9800 psi surface injection pressure plus an internal pressure gradient of with an external force equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

CASING DESIGN CRITERIA & LOAD CASE ASSUMPTIONS**SURFACE CASING:**

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
13.375"	54.5# J-55 LTC	12.615	12.459	2730	1130	853	14.375	909	0' - SCP'

Collapse: $DF_c \geq 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

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INTERMEDIATE 1 CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
10.75"	40.5# J-55 LTC	10.05	9.894	3130	1580	629	11.75	0	0' - ICP'

Collapse: $DF_c \geq 1.25$

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- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

INTERMEDIATE 2 CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
8.625"	32# L-80 HC BK	7.921	7.875	5710	3820	732	9.00	600	0' - 12CP'

Collapse: $DF_c \geq 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_b \geq 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.
- Gas Kick Profile: Internal burst force at the shoe will be fracture pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be ran above that. External force will be equal to the mud gradient in which the casing will be ran.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

PRODUCTION CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
5.5"	20# P-110 HC GBCD	4.778	4.653	12630	11100	641	6.3	667	0' - TD"

Collapse: $DF_c \geq 1.25$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be ran. Internal force equal to gas gradient over one-third of setting depth and mud gradient with which the next hole section will be ran below that.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be ran above that and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B \geq 1.25$

- Pressure Test: 80% of burst casing test with an external force equal to the mud gradient in which the casing will be ran
- Injection Down Casing: 9800 psi surface injection pressure plus an internal pressure gradient of with an external force equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

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API: 0
REGULATORY: BLM
PERMIT # 0



Thai Curry 22 27 Fed Com 301H

Bone Spring

Lea County, NM

RIG: H&P 460

KB: 26.5

GL: 3532

AFE:

SHL:

Sec. 22, T-20S, R-32E; 423 FNL, 344 FEL

Lat: 32.564778, Long: -103.746586 (NAD83)

HOLE SIZE	MD	FORMATION	TVD	MUD	CASING	CEMENT	SPECIAL INSTRUCTIONS
	120	20" Conductor	120				
17.5"	972	Rustler	972	SPUD MW 8.4 ppg Fresh TD MW 9.9 ppg	13 3/8 " 54.5# J-55 LTC +/- 14 Bowsprings 1 joint shoe track	LEAD: 12.8 PPG Top of Lead: 0 50% Excess TAIL: 14.8 PPG Top of Tail: 697' 20% Excess	Circ cmt to surface is a regulatory requirement Casing must be set 25' into the Rustler MUD: Fresh water only
12.25"	2,702	Yates	2,699	DRLOUT MW 10.0 ppg Brine TD MW 10 ppg	10 3/4 " 40.5# J-55 LTC +/- 14 Bowsprings 1 joint shoe track	LEAD: 12.5 PPG Top of Lead: 0 20% Excess TAIL: 14.8 PPG Top of Tail: 2241' 20% Excess	Circ cmt to surface is a regulatory requirement
9.875"	3,126	Capitan Reef	3,120	DRILLOUT MW 8.4 ppg Fresh TD MW 8.4 ppg	8 5/8 " 32# L-80 HC BK +/- 15 Bowsprings 1 joint shoe track	2 STAGE CEMENT Stage 1: LEAD: 12.5 PPG Top of Lead: 0' 20% Excess TAIL: 14.2 PPG Top of Tail: 3808' 20% Excess DV Tool @ +/- 3000' Stage 2: LEAD: 12.5 PPG Top of Lead: 0' 136% Excess TAIL: 14.2 PPG Top of Tail: 2850' 0% Excess	Pump stage 1 as designed. If cement is not circulated to surface, shift DV tool and pump stage 2. CBL required if cement is not circulated off DV tool during stage 2 job. Alternate Drift of 7-7/8"
VERT	4,810	Cherry Canyon	4,793	DRLOUT MW 9 ppg Cut Brine KOP MW 9.5 ppg	5 1/2 " 20# P-110 HC GBCD 0' - TD	LEAD: 10.7 PPG Top of Lead: 5300' No Excess TAIL: 14.8 PPG Top of Tail: 8435' (KOP) No Excess R-111-Q FIGURE E	Annular Capacity above top of lead: 167 bbls +/- 67 Bowsprings +/- 39 Doublebows +/- 424 Solid Bodies
CRV	8,435	KOP	8,414	EOC MW 9.5 ppg OBM	TD MW 9.5 ppg OBM		17,800 MD
	8,825	1st BS Sand	8,761				8,708 VS
LAT	9,776	EOC	8,891				8,891 TVD
7.875"							BHL: 1420 FSL, 330 FEL
							Expected BH Pressure: 4090
						POST FRAC: SQUEEZE CEMENT TO TIE IN 5.5" STRING. FINAL TOP OF CEMENT 500' ABOVE PREVIOUS SHOE WITH ≈61BBLs	

DIRECTIONS TO LOCATION:

Drilling Engineer: Ryan Harris

H&P 460

DATE: 5/29/2025

PRELIMINARY

CASING DESIGN CRITERIA & LOAD CASE ASSUMPTIONS**SURFACE CASING:**

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
13.375"	54.5# J-55 LTC	12.615	12.459	2730	1130	853	14.375	909	0' - SCP'

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- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_b \geq 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

INTERMEDIATE 1 CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
10.75"	40.5# J-55 LTC	10.05	9.894	3130	1580	629	11.75	0	0' - ICP'

Collapse: $DF_c \geq 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
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Burst: $DF_b \geq 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.
- Gas Kick Profile: Internal burst force at the shoe will be fracture pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be ran above that. External force will be equal to the mud gradient in which the casing will be ran.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

INTERMEDIATE 2 CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
8.625"	32# L-80 HC BK	7.921	7.875	5710	3820	732	9.00	600	0' - 12CP'

Collapse: $DF_c \geq 1.25$

- Full internal evacuation: Collapse force equal to the mud gradient in which the casing will be ran.
- Cementing: Collapse force equal to the gradient of the planned cement slurries to planned depths and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_b \geq 1.25$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the gradient in which the casing will be ran.
- Gas Kick Profile: Internal burst force at the shoe will be fracture pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be ran above that. External force will be equal to the mud gradient in which the casing will be ran.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be fracture pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

PRODUCTION CASING:

SIZE (in)	INTERMEDIATE 1 CASING	ID (in)	DRIFT (in)	BURST (psi)	COLLAPSE (psi)	TENSION (k-lbs)	CONN OD (in)	JOINT STRENGTH (k-lbs)	DEPTHS
5.5"	20# P-110 HC GBCD	4.778	4.653	12630	11100	641	6.3	667	0' - TD"

Collapse: $DF_c \geq 1.25$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be ran. Internal force equal to gas gradient over one-third of setting depth and mud gradient with which the next hole section will be ran below that.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be ran above that and an internal force equal to the fluid gradient of displacement fluid.

Burst: $DF_B \geq 1.25$

- Pressure Test: 80% of burst casing test with an external force equal to the mud gradient in which the casing will be ran
- Injection Down Casing: 9800 psi surface injection pressure plus an internal pressure gradient of with an external force equal to the mud gradient in which the casing will be ran.

Tension: $DF_T \geq 1.6$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string, without considering buoyancy.

WELL DETAILS: Thai Curry 22 27 Fed Com 301H

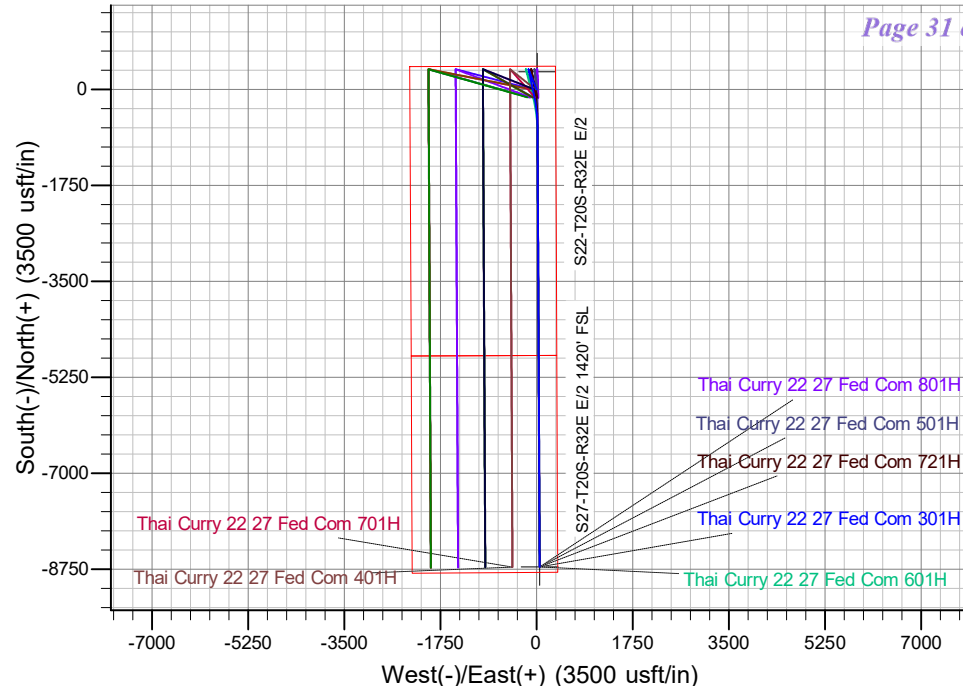
Ground Elev: 3532.0 KB: 3557

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	569695.16	722099.70	32.564778	-103.746586

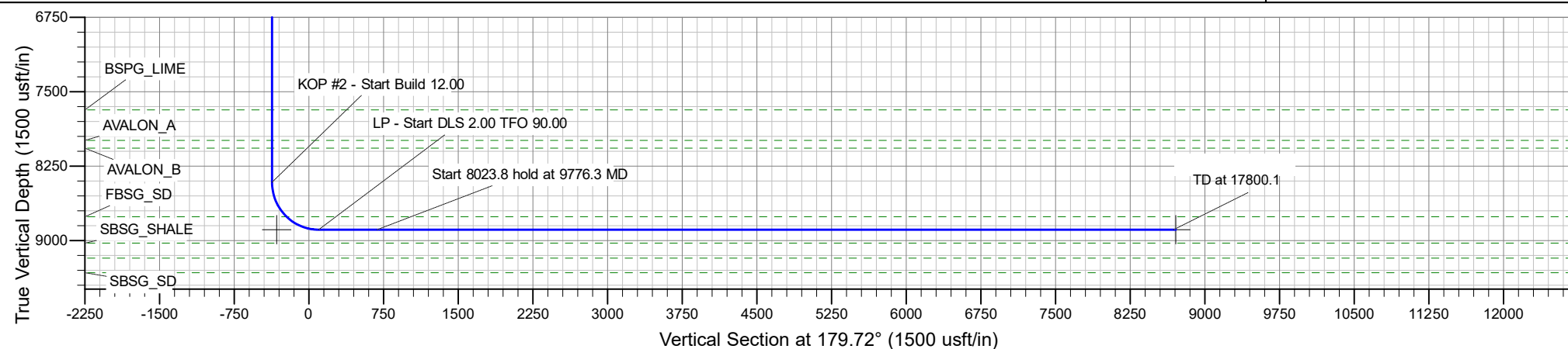
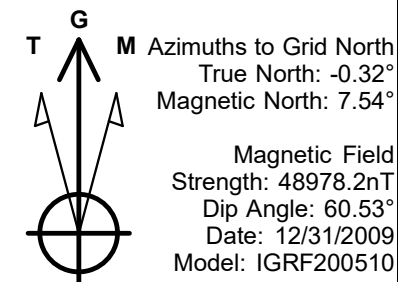
PROJECT DETAILS: Lea County, NM (NAD 83)

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	2324.6	6.49	338.32	2323.9	17.1	-6.8	2.00	338.32	-17.1	Start 3187.7 hold at 2324.6 MD
4	5512.3	6.49	338.32	5491.1	351.9	-139.9	0.00	0.00	-352.6	Start Drop -2.00
5	5836.8	0.00	0.00	5815.0	369.0	-146.7	2.00	180.00	-369.7	Start 2598.5 hold at 5836.8 MD
6	8435.3	0.00	0.00	8413.5	369.0	-146.7	0.00	0.00	-369.7	KOP #2 - Start Build 12.00
7	9185.3	90.00	167.90	8891.0	-97.9	-46.6	12.00	167.90	97.6	LP - Start DLS 2.00 TFO 90.00
8	9776.3	90.00	179.72	8891.0	-684.4	17.0	2.00	90.00	684.4	Start 8023.8 hold at 9776.3 MD
9	17800.1	90.00	179.72	8891.0	-8708.1	56.2	0.00	0.00	8708.2	TD at 17800.1



Avant Operating II, LLC

Lea County, NM (NAD 83)

Thai Curry 22 27 Fed Com Pad 1

Thai Curry 22 27 Fed Com 301H

OH

Plan: Plan 0.1

Standard Planning Report

01 April, 2025

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Thai Curry 22 27 Fed Com 301H
Company:	Avant Operating II, LLC	TVD Reference:	WELL @ 3557.0usft (3557)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3557.0usft (3557)
Site:	Thai Curry 22 27 Fed Com Pad 1	North Reference:	Grid
Well:	Thai Curry 22 27 Fed Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Project	Lea County, 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	Thai Curry 22 27 Fed Com Pad 1				
Site Position:		Northing:	569,695.12 usft	Latitude:	32.564778
From:	Lat/Long	Easting:	722,099.77 usft	Longitude:	-103.746586
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	Thai Curry 22 27 Fed Com 301H					
Well Position	+N/-S	0.0 usft	Northing:	569,695.16 usft	Latitude:	32.564778
	+E/-W	0.0 usft	Easting:	722,099.70 usft	Longitude:	-103.746586
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,532.0 usft
Grid Convergence:		0.32 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.86	60.53	48,978.17077910

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	179.72

Plan Survey Tool Program	Date	4/1/2025		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,799.8	Plan 0.1 (OH)	B001Mb_MWD+HRGM
				OWSG MWD + HRGM

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Site:	Thai Curry 22 27 Fed Com Pad 1	North Reference:	Grid
Well:	Thai Curry 22 27 Fed Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

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	
2,324.6	6.49	338.32	2,323.9	17.1	-6.8	2.00	2.00	0.00	338.32	
5,512.3	6.49	338.32	5,491.1	351.9	-139.9	0.00	0.00	0.00	0.00	
5,836.8	0.00	0.00	5,815.0	369.0	-146.7	2.00	-2.00	0.00	180.00	
8,435.3	0.00	0.00	8,413.5	369.0	-146.7	0.00	0.00	0.00	0.00	
9,185.3	90.00	167.90	8,891.0	-97.9	-46.6	12.00	12.00	0.00	167.90	
9,776.3	90.00	179.72	8,891.0	-684.4	17.0	2.00	0.00	2.00	90.00	
17,800.1	90.00	179.72	8,891.0	-8,708.1	56.2	0.00	0.00	0.00	0.00	LTP/BHL - Thai Curry

Planning Report

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Site:	Thai Curry 22 27 Fed Com Pad 1	North Reference:	Grid
Well:	Thai Curry 22 27 Fed Com 301H	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
972.0	0.00	0.00	972.0	0.0	0.0	0.0	0.00	0.00	0.00
RUSTLER									
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
1,289.0	0.00	0.00	1,289.0	0.0	0.0	0.0	0.00	0.00	0.00
SOLADO									
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
1,500.0	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
1,800.0	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	338.32	2,100.0	1.6	-0.6	-1.6	2.00	2.00	0.00
2,200.0	4.00	338.32	2,199.8	6.5	-2.6	-6.5	2.00	2.00	0.00
2,300.0	6.00	338.32	2,299.5	14.6	-5.8	-14.6	2.00	2.00	0.00
2,324.6	6.49	338.32	2,323.9	17.1	-6.8	-17.1	2.00	2.00	0.00
Start 3187.7 hold at 2324.6 MD									
2,400.0	6.49	338.32	2,398.8	25.0	-9.9	-25.0	0.00	0.00	0.00
2,500.0	6.49	338.32	2,498.2	35.5	-14.1	-35.6	0.00	0.00	0.00
2,600.0	6.49	338.32	2,597.5	46.0	-18.3	-46.1	0.00	0.00	0.00
2,700.0	6.49	338.32	2,696.9	56.5	-22.5	-56.6	0.00	0.00	0.00
2,702.1	6.49	338.32	2,699.0	56.7	-22.6	-56.8	0.00	0.00	0.00
YATES									
2,800.0	6.49	338.32	2,796.3	67.0	-26.6	-67.1	0.00	0.00	0.00
2,900.0	6.49	338.32	2,895.6	77.5	-30.8	-77.7	0.00	0.00	0.00
3,000.0	6.49	338.32	2,995.0	88.0	-35.0	-88.2	0.00	0.00	0.00
3,100.0	6.49	338.32	3,094.3	98.5	-39.2	-98.7	0.00	0.00	0.00
3,125.8	6.49	338.32	3,120.0	101.2	-40.2	-101.4	0.00	0.00	0.00
CAPTAN_REEF									
3,200.0	6.49	338.32	3,193.7	109.0	-43.3	-109.2	0.00	0.00	0.00
3,300.0	6.49	338.32	3,293.1	119.5	-47.5	-119.8	0.00	0.00	0.00
3,400.0	6.49	338.32	3,392.4	130.0	-51.7	-130.3	0.00	0.00	0.00
3,500.0	6.49	338.32	3,491.8	140.5	-55.9	-140.8	0.00	0.00	0.00
3,600.0	6.49	338.32	3,591.1	151.1	-60.1	-151.3	0.00	0.00	0.00
3,700.0	6.49	338.32	3,690.5	161.6	-64.2	-161.9	0.00	0.00	0.00
3,800.0	6.49	338.32	3,789.8	172.1	-68.4	-172.4	0.00	0.00	0.00
3,900.0	6.49	338.32	3,889.2	182.6	-72.6	-182.9	0.00	0.00	0.00
4,000.0	6.49	338.32	3,988.6	193.1	-76.8	-193.4	0.00	0.00	0.00
4,100.0	6.49	338.32	4,087.9	203.6	-80.9	-204.0	0.00	0.00	0.00

Planning Report

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Company:	Avant Operating II, LLC	TVD Reference:	WELL @ 3557.0usft (3557)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3557.0usft (3557)
Site:	Thai Curry 22 27 Fed Com Pad 1	North Reference:	Grid
Well:	Thai Curry 22 27 Fed Com 301H	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)
4,200.0	6.49	338.32	4,187.3	214.1	-85.1	-214.5	0.00	0.00	0.00
4,300.0	6.49	338.32	4,286.6	224.6	-89.3	-225.0	0.00	0.00	0.00
4,400.0	6.49	338.32	4,386.0	235.1	-93.5	-235.5	0.00	0.00	0.00
4,500.0	6.49	338.32	4,485.4	245.6	-97.6	-246.1	0.00	0.00	0.00
4,600.0	6.49	338.32	4,584.7	256.1	-101.8	-256.6	0.00	0.00	0.00
4,700.0	6.49	338.32	4,684.1	266.6	-106.0	-267.1	0.00	0.00	0.00
4,710.0	6.49	338.32	4,694.0	267.7	-106.4	-268.2	0.00	0.00	0.00
DELAWARE_SANDS									
4,800.0	6.49	338.32	4,783.4	277.1	-110.2	-277.6	0.00	0.00	0.00
4,809.6	6.49	338.32	4,793.0	278.1	-110.6	-278.7	0.00	0.00	0.00
CHERRY_CNYN									
4,900.0	6.49	338.32	4,882.8	287.6	-114.3	-288.2	0.00	0.00	0.00
5,000.0	6.49	338.32	4,982.2	298.1	-118.5	-298.7	0.00	0.00	0.00
5,100.0	6.49	338.32	5,081.5	308.6	-122.7	-309.2	0.00	0.00	0.00
5,200.0	6.49	338.32	5,180.9	319.1	-126.9	-319.7	0.00	0.00	0.00
5,300.0	6.49	338.32	5,280.2	329.6	-131.1	-330.3	0.00	0.00	0.00
5,400.0	6.49	338.32	5,379.6	340.1	-135.2	-340.8	0.00	0.00	0.00
5,500.0	6.49	338.32	5,479.0	350.6	-139.4	-351.3	0.00	0.00	0.00
5,512.3	6.49	338.32	5,491.1	351.9	-139.9	-352.6	0.00	0.00	0.00
Start Drop -2.00									
5,600.0	4.74	338.32	5,578.4	359.9	-143.1	-360.6	2.00	-2.00	0.00
5,700.0	2.74	338.32	5,678.2	366.0	-145.5	-366.7	2.00	-2.00	0.00
5,800.0	0.74	338.32	5,778.2	368.8	-146.6	-369.5	2.00	-2.00	0.00
5,836.8	0.00	0.00	5,815.0	369.0	-146.7	-369.7	2.00	-2.00	0.00
Start 2598.5 hold at 5836.8 MD									
5,900.0	0.00	0.00	5,878.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,978.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,071.8	0.00	0.00	6,050.0	369.0	-146.7	-369.7	0.00	0.00	0.00
BRUSHY_CANYON									
6,100.0	0.00	0.00	6,078.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,178.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,278.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,378.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,478.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,578.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,678.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,778.2	369.0	-146.7	-369.7	0.00	0.00	0.00
6,900.0	0.00	0.00	6,878.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,978.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,100.0	0.00	0.00	7,078.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,178.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,300.0	0.00	0.00	7,278.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,378.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,500.0	0.00	0.00	7,478.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,578.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,678.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,705.8	0.00	0.00	7,684.0	369.0	-146.7	-369.7	0.00	0.00	0.00
BSPG_LIME									
7,800.0	0.00	0.00	7,778.2	369.0	-146.7	-369.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,878.2	369.0	-146.7	-369.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,978.2	369.0	-146.7	-369.7	0.00	0.00	0.00
8,012.8	0.00	0.00	7,991.0	369.0	-146.7	-369.7	0.00	0.00	0.00
AVALON_A									

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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)
8,091.8	0.00	0.00	8,070.0	369.0	-146.7	-369.7	0.00	0.00	0.00
AVALON_B									
8,100.0	0.00	0.00	8,078.2	369.0	-146.7	-369.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,178.2	369.0	-146.7	-369.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,278.2	369.0	-146.7	-369.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,378.2	369.0	-146.7	-369.7	0.00	0.00	0.00
8,435.3	0.00	0.00	8,413.5	369.0	-146.7	-369.7	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
8,450.0	1.76	167.90	8,428.2	368.8	-146.7	-369.5	12.00	12.00	0.00
8,475.0	4.76	167.90	8,453.1	367.4	-146.4	-368.1	12.00	12.00	0.00
8,500.0	7.76	167.90	8,478.0	364.7	-145.8	-365.4	12.00	12.00	0.00
8,525.0	10.76	167.90	8,502.7	360.8	-144.9	-361.5	12.00	12.00	0.00
8,550.0	13.76	167.90	8,527.1	355.6	-143.8	-356.3	12.00	12.00	0.00
8,575.0	16.76	167.90	8,551.2	349.2	-142.4	-349.9	12.00	12.00	0.00
8,600.0	19.76	167.90	8,574.9	341.5	-140.8	-342.2	12.00	12.00	0.00
8,625.0	22.76	167.90	8,598.2	332.6	-138.9	-333.3	12.00	12.00	0.00
8,650.0	25.76	167.90	8,621.0	322.6	-136.8	-323.3	12.00	12.00	0.00
8,675.0	28.76	167.90	8,643.2	311.4	-134.4	-312.1	12.00	12.00	0.00
8,700.0	31.76	167.90	8,664.8	299.1	-131.7	-299.7	12.00	12.00	0.00
8,725.0	34.76	167.90	8,685.7	285.7	-128.8	-286.3	12.00	12.00	0.00
8,750.0	37.76	167.90	8,705.9	271.2	-125.7	-271.8	12.00	12.00	0.00
8,775.0	40.76	167.90	8,725.2	255.8	-122.4	-256.4	12.00	12.00	0.00
8,800.0	43.76	167.90	8,743.7	239.3	-118.9	-239.9	12.00	12.00	0.00
8,824.5	46.70	167.90	8,761.0	222.3	-115.3	-222.9	12.00	12.00	0.00
FBSG_SD									
8,825.0	46.76	167.90	8,761.3	222.0	-115.2	-222.5	12.00	12.00	0.00
8,850.0	49.76	167.90	8,778.0	203.7	-111.3	-204.3	12.00	12.00	0.00
FTP/PPP#1 - Thai Curry 22 27 Fed Com 301H									
8,875.0	52.76	167.90	8,793.6	184.7	-107.2	-185.2	12.00	12.00	0.00
8,900.0	55.76	167.90	8,808.2	164.8	-102.9	-165.3	12.00	12.00	0.00
8,925.0	58.76	167.90	8,821.7	144.3	-98.5	-144.7	12.00	12.00	0.00
8,950.0	61.76	167.90	8,834.1	123.0	-94.0	-123.5	12.00	12.00	0.00
8,975.0	64.76	167.90	8,845.4	101.2	-89.3	-101.6	12.00	12.00	0.00
9,000.0	67.76	167.90	8,855.4	78.8	-84.5	-79.2	12.00	12.00	0.00
9,025.0	70.76	167.90	8,864.3	56.0	-79.6	-56.4	12.00	12.00	0.00
9,050.0	73.76	167.90	8,871.9	32.7	-74.6	-33.1	12.00	12.00	0.00
9,075.0	76.76	167.90	8,878.3	9.1	-69.5	-9.4	12.00	12.00	0.00
9,100.0	79.76	167.90	8,883.4	-14.9	-64.4	14.6	12.00	12.00	0.00
9,125.0	82.76	167.90	8,887.2	-39.0	-59.2	38.7	12.00	12.00	0.00
9,150.0	85.76	167.90	8,889.7	-63.4	-54.0	63.1	12.00	12.00	0.00
9,175.0	88.76	167.90	8,890.9	-87.8	-48.8	87.5	12.00	12.00	0.00
9,185.3	90.00	167.90	8,891.0	-97.9	-46.6	97.6	12.00	12.00	0.00
LP - Start DLS 2.00 TFO 90.00									
9,200.0	90.00	168.19	8,891.0	-112.2	-43.6	112.0	2.00	0.00	2.00
9,300.0	90.00	170.19	8,891.0	-210.4	-24.8	210.3	2.00	0.00	2.00
9,400.0	90.00	172.19	8,891.0	-309.3	-9.5	309.2	2.00	0.00	2.00
9,500.0	90.00	174.19	8,891.0	-408.5	2.3	408.6	2.00	0.00	2.00
9,600.0	90.00	176.19	8,891.0	-508.2	10.7	508.2	2.00	0.00	2.00
9,700.0	90.00	178.19	8,891.0	-608.1	15.6	608.1	2.00	0.00	2.00
9,776.3	90.00	179.72	8,891.0	-684.4	17.0	684.4	2.00	0.00	2.00
Start 8023.8 hold at 9776.3 MD									
9,800.0	90.00	179.72	8,891.0	-708.0	17.1	708.1	0.00	0.00	0.00
9,900.0	90.00	179.72	8,891.0	-808.0	17.6	808.1	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Thai Curry 22 27 Fed Com 301H
Company:	Avant Operating II, LLC	TVD Reference:	WELL @ 3557.0usft (3557)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3557.0usft (3557)
Site:	Thai Curry 22 27 Fed Com Pad 1	North Reference:	Grid
Well:	Thai Curry 22 27 Fed Com 301H	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)	
10,000.0	90.00	179.72	8,891.0	-908.0	18.1	908.1	0.00	0.00	0.00	
10,100.0	90.00	179.72	8,891.0	-1,008.0	18.6	1,008.1	0.00	0.00	0.00	
10,200.0	90.00	179.72	8,891.0	-1,108.0	19.1	1,108.1	0.00	0.00	0.00	
10,300.0	90.00	179.72	8,891.0	-1,208.0	19.6	1,208.1	0.00	0.00	0.00	
10,400.0	90.00	179.72	8,891.0	-1,308.0	20.0	1,308.1	0.00	0.00	0.00	
10,500.0	90.00	179.72	8,891.0	-1,408.0	20.5	1,408.1	0.00	0.00	0.00	
10,600.0	90.00	179.72	8,891.0	-1,508.0	21.0	1,508.1	0.00	0.00	0.00	
10,700.0	90.00	179.72	8,891.0	-1,608.0	21.5	1,608.1	0.00	0.00	0.00	
10,800.0	90.00	179.72	8,891.0	-1,708.0	22.0	1,708.1	0.00	0.00	0.00	
10,900.0	90.00	179.72	8,891.0	-1,808.0	22.5	1,808.1	0.00	0.00	0.00	
11,000.0	90.00	179.72	8,891.0	-1,908.0	23.0	1,908.1	0.00	0.00	0.00	
11,100.0	90.00	179.72	8,891.0	-2,008.0	23.5	2,008.1	0.00	0.00	0.00	
11,200.0	90.00	179.72	8,891.0	-2,108.0	24.0	2,108.1	0.00	0.00	0.00	
11,300.0	90.00	179.72	8,891.0	-2,208.0	24.4	2,208.1	0.00	0.00	0.00	
11,400.0	90.00	179.72	8,891.0	-2,308.0	24.9	2,308.1	0.00	0.00	0.00	
11,500.0	90.00	179.72	8,891.0	-2,408.0	25.4	2,408.1	0.00	0.00	0.00	
11,600.0	90.00	179.72	8,891.0	-2,508.0	25.9	2,508.1	0.00	0.00	0.00	
11,700.0	90.00	179.72	8,891.0	-2,608.0	26.4	2,608.1	0.00	0.00	0.00	
11,800.0	90.00	179.72	8,891.0	-2,708.0	26.9	2,708.1	0.00	0.00	0.00	
11,900.0	90.00	179.72	8,891.0	-2,808.0	27.4	2,808.1	0.00	0.00	0.00	
12,000.0	90.00	179.72	8,891.0	-2,908.0	27.9	2,908.1	0.00	0.00	0.00	
12,100.0	90.00	179.72	8,891.0	-3,008.0	28.4	3,008.1	0.00	0.00	0.00	
12,200.0	90.00	179.72	8,891.0	-3,108.0	28.8	3,108.1	0.00	0.00	0.00	
12,300.0	90.00	179.72	8,891.0	-3,208.0	29.3	3,208.1	0.00	0.00	0.00	
12,400.0	90.00	179.72	8,891.0	-3,308.0	29.8	3,308.1	0.00	0.00	0.00	
12,500.0	90.00	179.72	8,891.0	-3,408.0	30.3	3,408.1	0.00	0.00	0.00	
12,600.0	90.00	179.72	8,891.0	-3,508.0	30.8	3,508.1	0.00	0.00	0.00	
12,700.0	90.00	179.72	8,891.0	-3,608.0	31.3	3,608.1	0.00	0.00	0.00	
12,800.0	90.00	179.72	8,891.0	-3,708.0	31.8	3,708.1	0.00	0.00	0.00	
12,900.0	90.00	179.72	8,891.0	-3,808.0	32.3	3,808.1	0.00	0.00	0.00	
13,000.0	90.00	179.72	8,891.0	-3,908.0	32.8	3,908.1	0.00	0.00	0.00	
13,100.0	90.00	179.72	8,891.0	-4,008.0	33.2	4,008.1	0.00	0.00	0.00	
13,200.0	90.00	179.72	8,891.0	-4,108.0	33.7	4,108.1	0.00	0.00	0.00	
13,300.0	90.00	179.72	8,891.0	-4,208.0	34.2	4,208.1	0.00	0.00	0.00	
13,400.0	90.00	179.72	8,891.0	-4,308.0	34.7	4,308.1	0.00	0.00	0.00	
13,500.0	90.00	179.72	8,891.0	-4,408.0	35.2	4,408.1	0.00	0.00	0.00	
13,600.0	90.00	179.72	8,891.0	-4,508.0	35.7	4,508.1	0.00	0.00	0.00	
13,700.0	90.00	179.72	8,891.0	-4,608.0	36.2	4,608.1	0.00	0.00	0.00	
13,800.0	90.00	179.72	8,891.0	-4,708.0	36.7	4,708.1	0.00	0.00	0.00	
13,900.0	90.00	179.72	8,891.0	-4,808.0	37.2	4,808.1	0.00	0.00	0.00	
14,000.0	90.00	179.72	8,891.0	-4,908.0	37.6	4,908.1	0.00	0.00	0.00	
14,100.0	90.00	179.72	8,891.0	-5,008.0	38.1	5,008.1	0.00	0.00	0.00	
14,200.0	90.00	179.72	8,891.0	-5,108.0	38.6	5,108.1	0.00	0.00	0.00	
14,300.0	90.00	179.72	8,891.0	-5,208.0	39.1	5,208.1	0.00	0.00	0.00	
14,400.0	90.00	179.72	8,891.0	-5,308.0	39.6	5,308.1	0.00	0.00	0.00	
14,500.0	90.00	179.72	8,891.0	-5,408.0	40.1	5,408.1	0.00	0.00	0.00	
14,600.0	90.00	179.72	8,891.0	-5,508.0	40.6	5,508.1	0.00	0.00	0.00	
14,700.0	90.00	179.72	8,891.0	-5,608.0	41.1	5,608.1	0.00	0.00	0.00	
14,800.0	90.00	179.72	8,891.0	-5,708.0	41.6	5,708.1	0.00	0.00	0.00	
14,900.0	90.00	179.72	8,891.0	-5,808.0	42.0	5,808.1	0.00	0.00	0.00	
15,000.0	90.00	179.72	8,891.0	-5,908.0	42.5	5,908.1	0.00	0.00	0.00	
15,100.0	90.00	179.72	8,891.0	-6,008.0	43.0	6,008.1	0.00	0.00	0.00	
15,200.0	90.00	179.72	8,891.0	-6,108.0	43.5	6,108.1	0.00	0.00	0.00	
15,300.0	90.00	179.72	8,891.0	-6,208.0	44.0	6,208.1	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Thai Curry 22 27 Fed Com 301H
Company:	Avant Operating II, LLC	TVD Reference:	WELL @ 3557.0usft (3557)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3557.0usft (3557)
Site:	Thai Curry 22 27 Fed Com Pad 1	North Reference:	Grid
Well:	Thai Curry 22 27 Fed Com 301H	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)	
15,400.0	90.00	179.72	8,891.0	-6,308.0	44.5	6,308.1	0.00	0.00	0.00	
15,500.0	90.00	179.72	8,891.0	-6,408.0	45.0	6,408.1	0.00	0.00	0.00	
15,600.0	90.00	179.72	8,891.0	-6,508.0	45.5	6,508.1	0.00	0.00	0.00	
15,700.0	90.00	179.72	8,891.0	-6,608.0	46.0	6,608.1	0.00	0.00	0.00	
15,800.0	90.00	179.72	8,891.0	-6,708.0	46.4	6,708.1	0.00	0.00	0.00	
15,900.0	90.00	179.72	8,891.0	-6,808.0	46.9	6,808.1	0.00	0.00	0.00	
16,000.0	90.00	179.72	8,891.0	-6,908.0	47.4	6,908.1	0.00	0.00	0.00	
16,100.0	90.00	179.72	8,891.0	-7,008.0	47.9	7,008.1	0.00	0.00	0.00	
16,200.0	90.00	179.72	8,891.0	-7,108.0	48.4	7,108.1	0.00	0.00	0.00	
16,300.0	90.00	179.72	8,891.0	-7,208.0	48.9	7,208.1	0.00	0.00	0.00	
16,400.0	90.00	179.72	8,891.0	-7,308.0	49.4	7,308.1	0.00	0.00	0.00	
16,500.0	90.00	179.72	8,891.0	-7,408.0	49.9	7,408.1	0.00	0.00	0.00	
16,600.0	90.00	179.72	8,891.0	-7,508.0	50.4	7,508.1	0.00	0.00	0.00	
16,700.0	90.00	179.72	8,891.0	-7,608.0	50.8	7,608.1	0.00	0.00	0.00	
16,800.0	90.00	179.72	8,891.0	-7,708.0	51.3	7,708.1	0.00	0.00	0.00	
16,900.0	90.00	179.72	8,891.0	-7,808.0	51.8	7,808.1	0.00	0.00	0.00	
17,000.0	90.00	179.72	8,891.0	-7,908.0	52.3	7,908.1	0.00	0.00	0.00	
17,100.0	90.00	179.72	8,891.0	-8,008.0	52.8	8,008.1	0.00	0.00	0.00	
17,200.0	90.00	179.72	8,891.0	-8,108.0	53.3	8,108.1	0.00	0.00	0.00	
17,300.0	90.00	179.72	8,891.0	-8,208.0	53.8	8,208.1	0.00	0.00	0.00	
17,400.0	90.00	179.72	8,891.0	-8,308.0	54.3	8,308.1	0.00	0.00	0.00	
17,500.0	90.00	179.72	8,891.0	-8,408.0	54.8	8,408.1	0.00	0.00	0.00	
17,600.0	90.00	179.72	8,891.0	-8,508.0	55.2	8,508.1	0.00	0.00	0.00	
17,700.0	90.00	179.72	8,891.0	-8,608.0	55.7	8,608.1	0.00	0.00	0.00	
17,800.1	90.00	179.72	8,891.0	-8,708.1	56.2	8,708.2	0.00	0.00	0.00	
TD at 17800.1 - LTP/BHL - Thai Curry 22 27 Fed Com 301H										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
LTP/BHL - Thai Curry 22	0.00	0.00	8,891.0	-8,708.1	56.2	560,987.09	722,155.92	32.540842	-103.746560
- plan hits target center									
- Point									
FTP/PPP#1 - Thai Curry	0.00	0.00	8,891.0	323.4	12.5	570,018.52	722,112.21	32.565667	-103.746540
- plan misses target center by 205.9usft at 8850.0usft MD (8778.0 TVD, 203.7 N, -111.3 E)									
- Point									

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Thai Curry 22 27 Fed Com 301H
Company:	Avant Operating II, LLC	TVD Reference:	WELL @ 3557.0usft (3557)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3557.0usft (3557)
Site:	Thai Curry 22 27 Fed Com Pad 1	North Reference:	Grid
Well:	Thai Curry 22 27 Fed Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
972.0	972.0	RUSTLER				
1,289.0	1,289.0	SOLADO				
2,702.1	2,699.0	YATES				
3,125.8	3,120.0	CAPITAN_REEF				
4,710.0	4,694.0	DELAWARE_SANDS				
4,809.6	4,793.0	CHERRY_CNYN				
6,071.8	6,050.0	BRUSHY_CANYON				
7,705.8	7,684.0	BSPG_LIME				
8,012.8	7,991.0	AVALON_A				
8,091.8	8,070.0	AVALON_B				
8,824.5	8,761.0	FBSG_SD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,000.0	2,000.0	0.0	0.0	KOP - Start Build 2.00	
2,324.6	2,323.9	17.1	-6.8	Start 3187.7 hold at 2324.6 MD	
5,512.3	5,491.1	351.9	-139.9	Start Drop -2.00	
5,836.8	5,815.0	369.0	-146.7	Start 2598.5 hold at 5836.8 MD	
8,435.3	8,413.5	369.0	-146.7	KOP #2 - Start Build 12.00	
9,185.3	8,891.0	-97.9	-46.6	LP - Start DLS 2.00 TFO 90.00	
9,776.3	8,891.0	-684.4	17.0	Start 8023.8 hold at 9776.3 MD	
17,800.1	8,891.0	-8,708.1	56.2	TD at 17800.1	

**PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Avant Operating II LLC
LOCATION:	Section 22, T.20 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Thai Curry 22 27 Fed Com 301H
ATS/API ID:	ATS-25-1663
APD ID:	10400104388
Sundry ID:	N/a

WELL NAME & NO.:	Thai Curry 22 27 Fed Com 302H
ATS/API ID:	ATS-25-1415
APD ID:	10400104389
Sundry ID:	N/a

WELL NAME & NO.:	Thai Curry 22 27 Fed Com 303H
ATS/API ID:	ATS-25-1416
APD ID:	10400104390
Sundry ID:	N/a

WELL NAME & NO.:	Thai Curry 22 27 Fed Com 401H
ATS/API ID:	ATS-25-1417
APD ID:	10400104391
Sundry ID:	N/a

WELL NAME & NO.:	Thai Curry 22 27 Fed Com 402H
ATS/API ID:	ATS-25-1418
APD ID:	10400104392
Sundry ID:	N/a

WELL NAME & NO.:	Thai Curry 22 27 Fed Com 501H
ATS/API ID:	ATS-25-1419
APD ID:	10400104393
Sundry ID:	N/a

WELL NAME & NO.:	Thai Curry 22 27 Fed Com 502H
ATS/API ID:	ATS-25-1420
APD ID:	10400104394
Sundry ID:	N/a

WELL NAME & NO.: ATS/API ID: APD ID: Sundry ID:	Thai Curry 22 27 Fed Com 503H ATS-25-1421 10400104395 N/a
WELL NAME & NO.: ATS/API ID: APD ID: Sundry ID:	Thai Curry 22 27 Fed Com 601H ATS-25-1444 10400104467 N/a
WELL NAME & NO.: ATS/API ID: APD ID: Sundry ID:	Thai Curry 22 27 Fed Com 602H ATS-25-1451 10400104469 N/a
WELL NAME & NO.: ATS/API ID: APD ID: Sundry ID:	Thai Curry 22 27 Fed Com 603H ATS-25-1452 10400104471 N/a
WELL NAME & NO.: ATS/API ID: APD ID: Sundry ID:	Thai Curry 22 27 Fed Com 701H ATS-25-1454 10400104485 N/a
WELL NAME & NO.: ATS/API ID: APD ID: Sundry ID:	Thai Curry 22 27 Fed Com 702H ATS-25-1447 10400104487 N/a

COA

H2S	No		
Potash	R-111-Q	Figure E	
Cave/Karst Potential	Medium		
Cave/Karst Potential	☐ Critical		
Variance	☒ None	☒ Flex Hose	☒ Other
Wellhead	Conventional and Multibowl		
Other	☒ 4 String ☐ 5 String	Capitan Reef Int 2	☐ WIPP
Other	Pilot Hole None	☒ Open Annulus	
Cementing	Contingency Squeeze None	Echo-Meter Prod	Primary Cement Squeeze None
Special Requirements	☐ Water Disposal/Injection	☒ COM	☐ Unit
Special Requirements	☐ Batch Sundry	Waste Prevention Waste MP	
Special Requirements Variance	☐ BOPE Break Testing ☐ Offline BOPE Testing	☒ Offline Cementing	☐ Casing Clearance

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet **43 CFR part 3170 Subpart 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **997 feet** (a minimum of 70 feet into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **10-3/4** inch intermediate casing shall be set at approximately **2780 feet** is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**

3. The minimum required fill of cement behind the 8-5/8 inch intermediate casing shall be set at approximately 4550 feet is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

Option 2:

Operator has proposed a DV tool(s), the depth may be adjusted as long as the cement is changed proportionally. The DV tool(s) may be cancelled if cement circulates to surface on the first stage.

DV tool(s) shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall contact the BLM if DV tool(s) depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- a. First stage to DV tool(s): Cement to circulate. If cement does not circulate off the DV tool(s), contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool(s):
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.
4. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - The top of cement in the annulus between the 2st intermediate and the production casing strings shall stand un-cemented at least 500 feet below the 2st intermediate shoe. Zero percent excess shall be pumped on the production cement slurry.

- After hydraulic fracturing operations have been concluded and no longer than 180 days after the well is brought online, the operator shall bradenhead cement at least **500 feet** tie-back into the previous casing but not higher than USGS Marker Bed No. 126. **(Squeeze 260 sxs Class C and 128 bbls Displacement Fluid)**
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

Operator has proposed to pump down **8 5/8" X 5-1/2"** annulus post completion. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus or operator shall run a CBL from TD of the 5-1/2" casing to surface to verify TOC. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore. Report the amount of fluid utilized to pump the cement slurry and the calculated top of cement slurry to the BLM. Operator may conduct a negative and positive pressure test during completion to remediate sustained casing pressure and ensure cement tie-back requirement.

Operator has proposed an open annulus completion in R-111-Q. Submit results to the BLM. Pressure monitoring device and Pressure Safety Valves must be installed at surface on the 8 5/8" x 5-1/2" annulus.

In the event of a casing failure during completion, the operator must contact the BLM at (575-706-2779) and (575-689-5981 Lea County).

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **10-3/4** intermediate casing shoe shall be **3000 (3M)** psi.
- c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **8-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

- a. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)**Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Offline Cementing

Operator has been **(Approved)** to pump the proposed cement program offline in the **Surface and intermediate(s) intervals**.

Offline cementing should commence within 24 hours of landing the casing for the interval.

Notify the BLM 4hrs prior to cementing offline at **Lea County: 575-689-5981**.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke

manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be

initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and

disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Long Vo (LVO) 8/5/2025

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/Escape packs — 4 packs shall be stored on the rig floor th 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

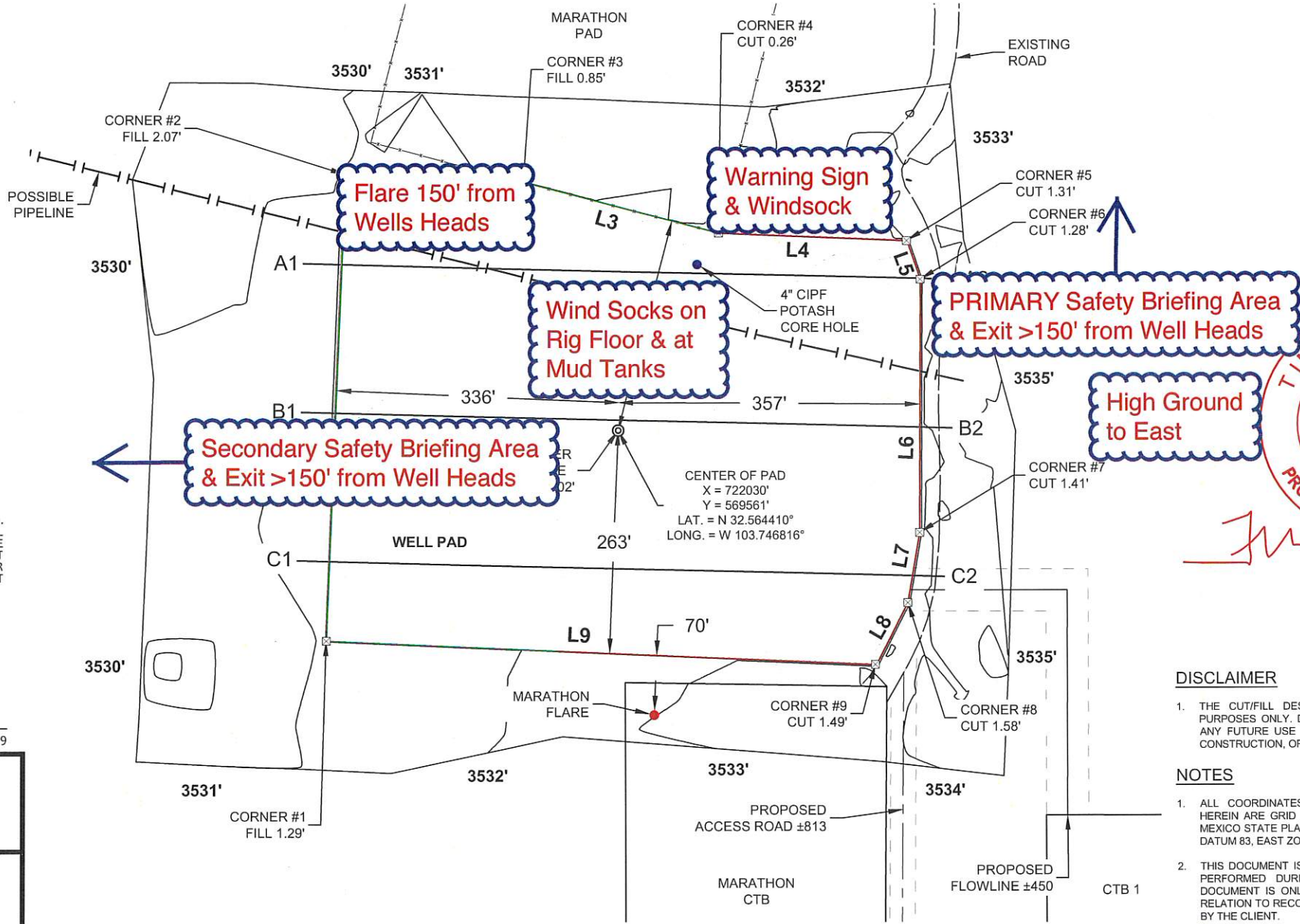


LEA COUNTY, NEW MEXICO
SECTION 22, TOWNSHIP 20 SOUTH, RANGE 32 EAST

LINE	BEARING	DISTANCE
L1	N 02°24'16" E	550.00'
L2	S 87°35'44" E	211.45'
L3	S 75°28'40" E	239.19'
L4	S 87°39'20" E	223.05'
L5	S 19°03'20" E	48.17'
L6	S 00°21'25" W	298.01'
L7	S 09°49'58" W	84.01'
L8	S 27°11'30" W	81.58'
L9	N 87°35'44" W	651.57'

TOP OF PAD ELEVATION = 3,532.20'
CUT SLOPE = 33.33% - 3,000:1 - 18.43°
FILL SLOPE = 33.33% - 3,000:1 - 18.43°

CUT VOLUME: 151,749.72 C.F. - 5,620.36 C.Y.
FILL VOLUME: 130,370.31 C.F. - 4,828.53 C.Y.
NET VOLUME: 21,379.41 C.F. - 791.83 C.Y.
PAD AREA: 359,708 SQ.FT. - 8.258 ACRES



4 April 2025

I, TIM C. PAPPAS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 21209, DO HEREBY CERTIFY THAT THIS PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT THIS SURVEY MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

TIM C. PAPPAS, N.M. P.L.S. NO. 21209

AVANT
OPERATING II, LLC

Situated in
SECTION 22, TOWNSHIP 20 SOUTH,
RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

THAI CURRY 22 27 FED COM PAD 1
BUREAU OF LAND MANAGEMENT
CUT & FILL PRELIM



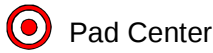
12400 Network Blvd. - Suite 130
San Antonio, TX 78249
Phone: 726-777-4240

DRAWN BY: JW	DATE: 04/03/2025	REV.
CHECKED BY: JH	DATE: 04/03/2025	2
AFE #	PROJECT ID: 25-03-5314	SHEET 1 OF 2

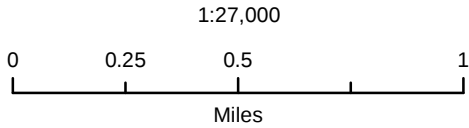
Avant Operating II, LLC

Thai Curry 22 27 Fed Com
H2S Contingency Plan:
Radius Map

Section 22, Township 20S, Range 32E
Lea County, New Mexico



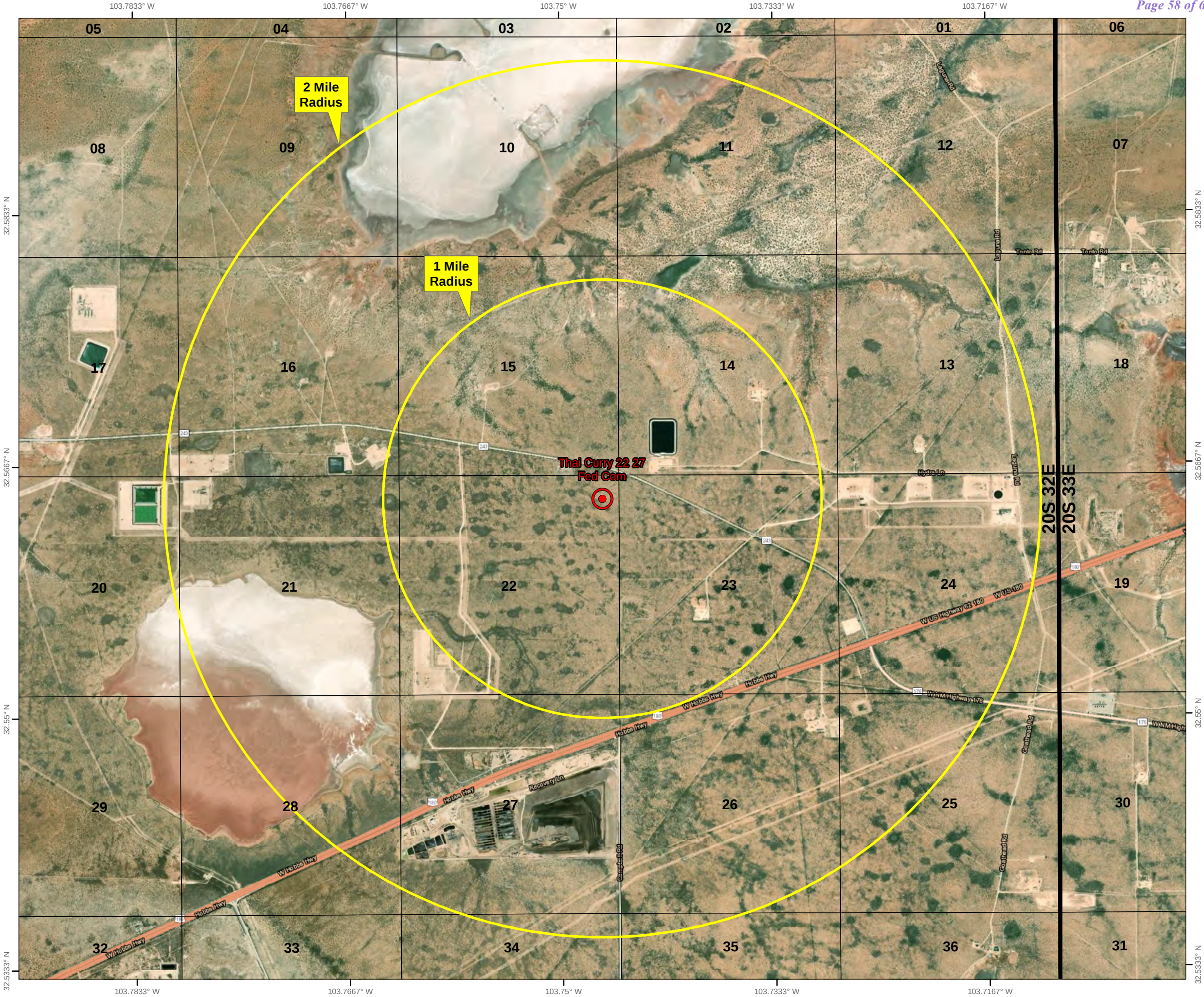
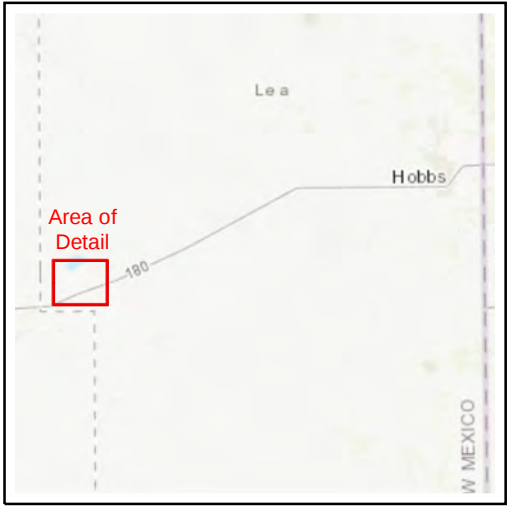
Pad Center



NAD 1983 New Mexico State Plane East
FIPS 3001 Feet



Prepared by Permits West, Inc., March 31, 2025
for Avant Operating II, LLC



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

ACKNOWLEDGMENTS

Action 497397

ACKNOWLEDGMENTS

Operator: Avant Operating II, LLC 1515 Wynkoop Street Denver, CO 80202	OGRID: 332947
	Action Number: 497397
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☒	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
-------------------------------------	--

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
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1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 497397

CONDITIONS

Operator: Avant Operating II, LLC 1515 Wynkoop Street Denver, CO 80202	OGRID: 332947
	Action Number: 497397
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
twelem	Cement is required to circulate on both surface and intermediate1 strings of casing.	8/19/2025
twelem	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	8/19/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	9/22/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	9/22/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	9/22/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	9/22/2025
ward.rikala	This well is within the Capitan Reef. The first intermediate casing string shall be set and cemented back to surface immediately above the Capitan Reef. The second intermediate string shall be set and cemented back to surface immediately below the base of the Capitan Reef.	9/22/2025
ward.rikala	Operator must comply with all of the R-111-Q requirements.	9/22/2025