

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 353374

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address Avant Operating, LLC 1515 Wynkoop Street Denver, CO 80202		2. OGRID Number 330396
		3. API Number 30-025-52205
4. Property Code 334829	5. Property Name EXPLORER 15 STATE COM	6. Well No. 007H

7. Surface Location

UL - Lot B	Section 15	Township 18S	Range 34E	Lot Idn B	Feet From 271	N/S Line N	Feet From 1337	E/W Line E	County Lea
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8. Proposed Bottom Hole Location

UL - Lot O	Section 22	Township 18S	Range 34E	Lot Idn O	Feet From 100	N/S Line S	Feet From 1320	E/W Line E	County Lea
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9. Pool Information

TONTO DEEP;WOLFCAMP	59510
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 4018
16. Multiple N	17. Proposed Depth 21581	18. Formation Wolfcamp	19. Contractor	20. Spud Date 5/29/2024
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	14.75	10.75	40.5	1805	875	1440
Int1	9.875	7.625	29.7	9216	920	7520
Prod	6.75	5.5	20	21581	1315	10775

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Pipe	10000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Sarah Ferreyros	Approved By: Paul F Kautz	
Title: Director of Regulatory	Title: Geologist	
Email Address: sarah@avantnr.com	Approved Date: 11/14/2023	Expiration Date: 11/14/2025
Date: 11/13/2023	Phone: 720-854-9020	Conditions of Approval Attached

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 59510	Pool Name TONTO DEEP;WOLFCAMP
Property Code	Property Name EXPLORER 15 STATE COM	Well Number #007H
OGRID No. 330396	Operator Name AVANT OPERATING, LLC	Elevation 4018'

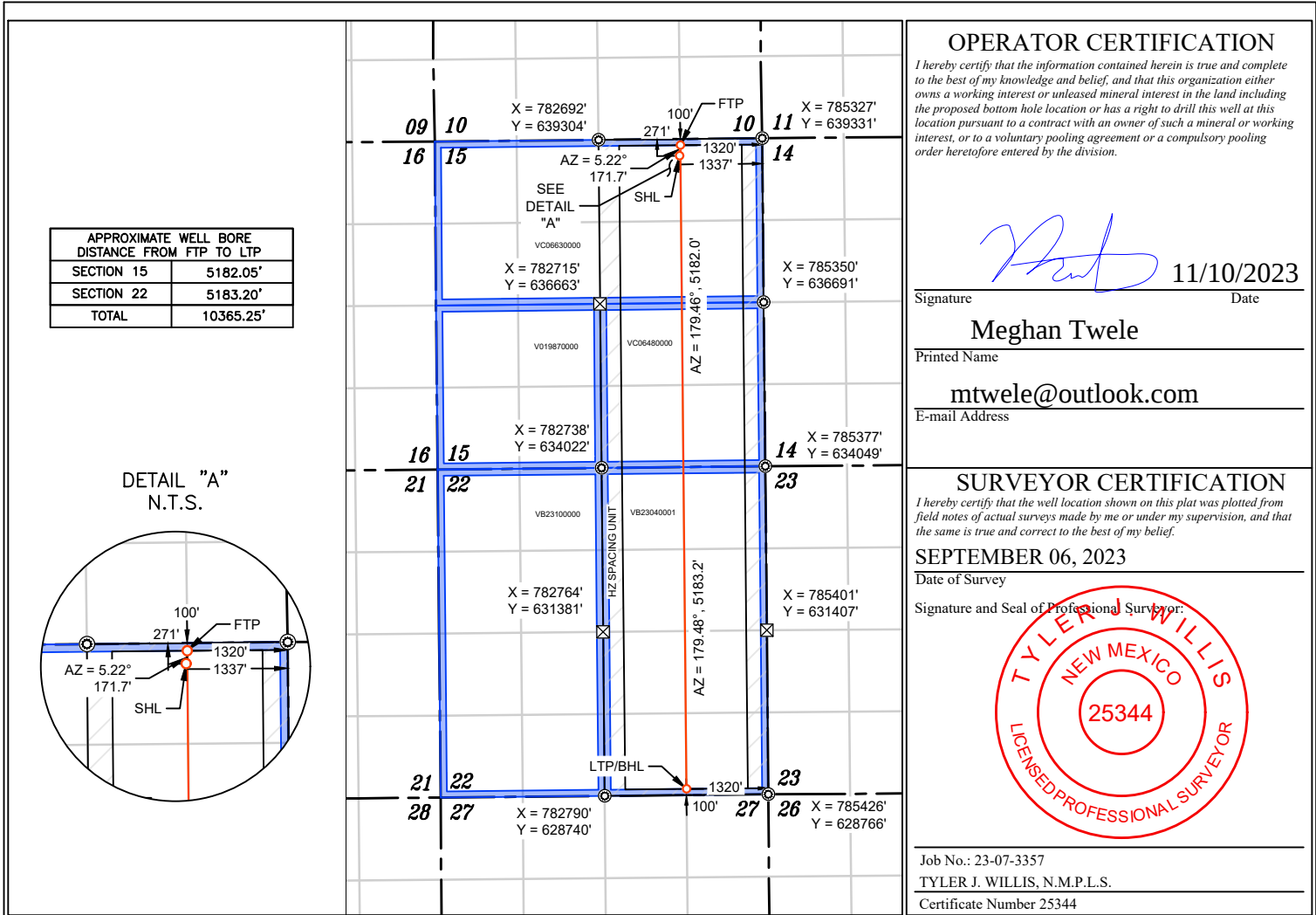
Surface Location

UL or lot no. B	Section 15	Township 18 S	Range 34 E	Lot Idn	Feet from the 271	North/South line NORTH	Feet from the 1337	East/West line EAST	County LEA
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Bottom Hole Location If Different From Surface

UL or lot no. O	Section 22	Township 18 S	Range 34 E	Lot Idn	Feet from the 100	North/South line SOUTH	Feet from the 1320	East/West line EAST	County LEA
Dedicated Acres 640.00	Joint or Infill	Consolidation Code	Order No.						

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.

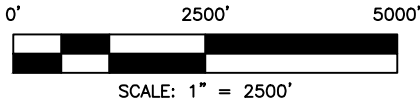


NAD 83 (SHL) 271' FNL & 1337' FEL LATITUDE = 32.754289° LONGITUDE = -103.544025° NAD 27 (SURFACE HOLE LOCATION) LATITUDE = 32.754165° LONGITUDE = -103.543528° STATE PLANE NAD 83 (N.M. EAST) N: 639046.56' E: 783992.51' STATE PLANE NAD 27 (N.M. EAST) N: 638981.88' E: 742813.35'	NAD 83 (FTP) 100' FNL & 1320' FEL LATITUDE = 32.754759° LONGITUDE = -103.543970° NAD 27 (FTP) LATITUDE = 32.754635° LONGITUDE = -103.543473° STATE PLANE NAD 83 (N.M. EAST) N: 639217.52' E: 784008.14' STATE PLANE NAD 27 (N.M. EAST) N: 639152.84' E: 742828.99'	NAD 83 (LTP/BHL) 100' FSL & 1320' FEL LATITUDE = 32.726270° LONGITUDE = -103.543908° NAD 27 (LTP/BHL) LATITUDE = 32.726146° LONGITUDE = -103.543412° STATE PLANE NAD 83 (N.M. EAST) N: 628852.73' E: 784104.70' STATE PLANE NAD 27 (N.M. EAST) N: 628788.36' E: 742925.26'
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- ⊙ FND. U.S.G.L.O. MON. UNLESS OTHERWISE NOTED
- ☒ CALC. CORNER
- SHL/ KOP/ FTP/ PPP/ LTP / BHL
- OIL & GAS LEASE
- HORIZONTAL SPACING UNIT

NOTES

- 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), NAVD 88.
- THIS DOCUMENT IS BASED UPON AN ON THE GROUND SURVEY PERFORMED DURING SEPTEMBER, 2023. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS EASEMENT IN RELATION TO RECORDED MONUMENT OF DEEDS PROVIDED BY THE CLIENT.
- ELEVATIONS MSL, DERIVED FROM G.N.S.S. OBSERVATION AND DERIVED FROM SAID ON-THE-GROUND SURVEY.



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

Form APD Comments
Permit 353374

PERMIT COMMENTS

Operator Name and Address: Avant Operating, LLC [330396] 1515 Wynkoop Street Denver, CO 80202		API Number: 30-025-52205
		Well: EXPLORER 15 STATE COM #007H

Created By	Comment	Comment Date
twelem	Avant is applying for this well to be a proximity well, allowing 640 dedicated acres.	11/13/2023

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Form APD Conditions

Permit 353374

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: Avant Operating, LLC [330396] 1515 Wynkoop Street Denver, CO 80202	API Number: 30-025-52205
	Well: EXPLORER 15 STATE COM #007H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	If cement does not circulate on any string , a CBL is required for that string of casing.
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

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, LLC **OGRID:** 330396 **Date:** 11/08/2023

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
Explorer 15 State Com 006H		B-15-T18S-R34E	271FNL/1357FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 007H		B-15-T18S-R34E	271FNL/1337FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 008H		A-15-T18S-R34E	271FNL/1317FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 301H		B-15-T18S-R34E	431FNL/1359FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 302H		B-15-T18S-R34E	431FNL/1339FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D
Explorer 15 State Com 303H		B-15-T18S-R34E	431FNL/1319FEL	1000 BBL/D	1800 MCF/D	8000 BBL/D

IV. Central Delivery Point Name: Explorer CTB 1 [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
Explorer 15 State Com 006H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 007H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 008H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 301H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 302H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025
Explorer 15 State Com 303H		05/01/2025	08/15/2025	08/22/2025	09/30/2025	09/30/2025

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.

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: VP of Geosciences

E-mail Address: John@avantnr.com

Date: 11/08/23

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, 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. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, Avant will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications. 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 (l) 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

Map**Line Pressure Plan**

When we start to see an increase in line pressure, we will communicate with our current Gas Midstream company to see how we can reduce the line pressure to ensure they can handle the production. We will monitor closely and make facility adjustments to keep line pressures down. If we continue to see downstream issues with high line pressures, we will look at alternative options to capture the excess gas the pipeline cannot handle to keep line pressures low. Building a relationship with the Gas Midstream company will be a priority to ensure both parties are on the same page when new wells are coming online in order to keep line pressures low for any upgrades that need to be in place before they come online.

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018



Avant Operating, LLC

Lea Co., NM (NAD 83)

Explorer 15 State Com Pad 2

Explorer 15 State Com 007H

OH

Plan: Plan 0.1

Standard Planning Report

30 October, 2023





Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 007H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	North Reference:	Grid
Well:	Explorer 15 State Com 007H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

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

Site	Explorer 15 State Com Pad 2			
Site Position:		Northing:	638,966.75 usft	Latitude: 32.7540850°N
From:	Lat/Long	Easting:	783,247.96 usft	Longitude: 103.5464490°W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	

Well	Explorer 15 State Com 007H			
Well Position	+N/-S	0.0 usft	Northing:	639,046.52 usft
	+E/-W	0.0 usft	Easting:	783,992.64 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level: 4,018.0 usft
Grid Convergence:	0.43 °			

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	8.59	60.94	49,745.23576840

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	179.37

Plan Survey Tool Program	Date	10/30/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,462.1 Plan 0.1 (OH)	B001Mb_MWD+HRGM	
			OWSG MWD + HRGM	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,073.5	1.47	4.42	2,073.5	0.9	0.1	2.00	2.00	0.00	4.42	
10,599.3	1.47	4.42	10,596.5	219.1	16.9	0.00	0.00	0.00	0.00	
10,672.8	0.00	0.00	10,670.0	220.0	17.0	2.00	-2.00	0.00	180.00	
10,775.4	0.00	0.00	10,772.5	220.0	17.0	0.00	0.00	0.00	0.00	
11,525.4	90.00	179.48	11,250.0	-257.4	21.4	12.00	12.00	0.00	179.48	
21,462.1	90.00	179.48	11,250.0	-10,193.8	111.9	0.00	0.00	0.00	0.00	Explorer 15 State Cor



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 007H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	North Reference:	Grid
Well:	Explorer 15 State Com 007H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	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
1,780.0	0.00	0.00	1,780.0	0.0	0.0	0.0	0.00	0.00	0.00
RUSTLER									
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,890.0	0.00	0.00	1,890.0	0.0	0.0	0.0	0.00	0.00	0.00
SALT									
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									
2,073.5	1.47	4.42	2,073.5	0.9	0.1	-0.9	2.00	2.00	0.00
Start 8525.8 hold at 2073.5 MD									
2,100.0	1.47	4.42	2,100.0	1.6	0.1	-1.6	0.00	0.00	0.00
2,200.0	1.47	4.42	2,200.0	4.2	0.3	-4.2	0.00	0.00	0.00
2,300.0	1.47	4.42	2,299.9	6.7	0.5	-6.7	0.00	0.00	0.00
2,400.0	1.47	4.42	2,399.9	9.3	0.7	-9.3	0.00	0.00	0.00
2,500.0	1.47	4.42	2,499.9	11.9	0.9	-11.8	0.00	0.00	0.00
2,600.0	1.47	4.42	2,599.8	14.4	1.1	-14.4	0.00	0.00	0.00
2,700.0	1.47	4.42	2,699.8	17.0	1.3	-17.0	0.00	0.00	0.00
2,800.0	1.47	4.42	2,799.8	19.5	1.5	-19.5	0.00	0.00	0.00
2,900.0	1.47	4.42	2,899.7	22.1	1.7	-22.1	0.00	0.00	0.00
3,000.0	1.47	4.42	2,999.7	24.6	1.9	-24.6	0.00	0.00	0.00
3,100.0	1.47	4.42	3,099.7	27.2	2.1	-27.2	0.00	0.00	0.00
3,200.0	1.47	4.42	3,199.6	29.8	2.3	-29.7	0.00	0.00	0.00
3,300.0	1.47	4.42	3,299.6	32.3	2.5	-32.3	0.00	0.00	0.00
3,400.0	1.47	4.42	3,399.6	34.9	2.7	-34.8	0.00	0.00	0.00
3,500.0	1.47	4.42	3,499.5	37.4	2.9	-37.4	0.00	0.00	0.00
3,600.0	1.47	4.42	3,599.5	40.0	3.1	-40.0	0.00	0.00	0.00
3,655.5	1.47	4.42	3,655.0	41.4	3.2	-41.4	0.00	0.00	0.00
SEVEN RIVERS									
3,700.0	1.47	4.42	3,699.5	42.6	3.3	-42.5	0.00	0.00	0.00
3,800.0	1.47	4.42	3,799.4	45.1	3.5	-45.1	0.00	0.00	0.00
3,900.0	1.47	4.42	3,899.4	47.7	3.7	-47.6	0.00	0.00	0.00
4,000.0	1.47	4.42	3,999.4	50.2	3.9	-50.2	0.00	0.00	0.00
4,100.0	1.47	4.42	4,099.3	52.8	4.1	-52.7	0.00	0.00	0.00
4,200.0	1.47	4.42	4,199.3	55.3	4.3	-55.3	0.00	0.00	0.00
4,300.0	1.47	4.42	4,299.3	57.9	4.5	-57.8	0.00	0.00	0.00



Planning Report



Database: EDM 5000.16 Single User Db
Company: Avant Operating, LLC
Project: Lea Co., NM (NAD 83)
Site: Explorer 15 State Com Pad 2
Well: Explorer 15 State Com 007H
Wellbore: OH
Design: Plan 0.1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Explorer 15 State Com 007H
 WELL @ 4044.5usft (4044.5)
 WELL @ 4044.5usft (4044.5)
 Grid
 Minimum Curvature

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)
4,390.8	1.47	4.42	4,390.0	60.2	4.7	-60.2	0.00	0.00	0.00
QUEEN									
4,400.0	1.47	4.42	4,399.2	60.5	4.7	-60.4	0.00	0.00	0.00
4,500.0	1.47	4.42	4,499.2	63.0	4.9	-63.0	0.00	0.00	0.00
4,600.0	1.47	4.42	4,599.2	65.6	5.1	-65.5	0.00	0.00	0.00
4,700.0	1.47	4.42	4,699.1	68.1	5.3	-68.1	0.00	0.00	0.00
4,800.0	1.47	4.42	4,799.1	70.7	5.5	-70.6	0.00	0.00	0.00
4,900.0	1.47	4.42	4,899.1	73.3	5.7	-73.2	0.00	0.00	0.00
4,998.0	1.47	4.42	4,997.0	75.8	5.9	-75.7	0.00	0.00	0.00
CAPITAN REEF									
5,000.0	1.47	4.42	4,999.0	75.8	5.9	-75.7	0.00	0.00	0.00
5,100.0	1.47	4.42	5,099.0	78.4	6.1	-78.3	0.00	0.00	0.00
5,200.0	1.47	4.42	5,199.0	80.9	6.3	-80.9	0.00	0.00	0.00
5,300.0	1.47	4.42	5,298.9	83.5	6.5	-83.4	0.00	0.00	0.00
5,400.0	1.47	4.42	5,398.9	86.0	6.6	-86.0	0.00	0.00	0.00
5,500.0	1.47	4.42	5,498.9	88.6	6.8	-88.5	0.00	0.00	0.00
5,600.0	1.47	4.42	5,598.8	91.2	7.0	-91.1	0.00	0.00	0.00
5,653.2	1.47	4.42	5,652.0	92.5	7.1	-92.4	0.00	0.00	0.00
CHERRY CANYON									
5,700.0	1.47	4.42	5,698.8	93.7	7.2	-93.6	0.00	0.00	0.00
5,800.0	1.47	4.42	5,798.8	96.3	7.4	-96.2	0.00	0.00	0.00
5,811.2	1.47	4.42	5,810.0	96.6	7.5	-96.5	0.00	0.00	0.00
BRUSHY CANYON									
5,900.0	1.47	4.42	5,898.7	98.8	7.6	-98.7	0.00	0.00	0.00
6,000.0	1.47	4.42	5,998.7	101.4	7.8	-101.3	0.00	0.00	0.00
6,100.0	1.47	4.42	6,098.7	104.0	8.0	-103.9	0.00	0.00	0.00
6,200.0	1.47	4.42	6,198.6	106.5	8.2	-106.4	0.00	0.00	0.00
6,300.0	1.47	4.42	6,298.6	109.1	8.4	-109.0	0.00	0.00	0.00
6,400.0	1.47	4.42	6,398.6	111.6	8.6	-111.5	0.00	0.00	0.00
6,500.0	1.47	4.42	6,498.5	114.2	8.8	-114.1	0.00	0.00	0.00
6,591.5	1.47	4.42	6,590.0	116.5	9.0	-116.4	0.00	0.00	0.00
Top of BSGL									
6,600.0	1.47	4.42	6,598.5	116.7	9.0	-116.6	0.00	0.00	0.00
6,700.0	1.47	4.42	6,698.5	119.3	9.2	-119.2	0.00	0.00	0.00
6,800.0	1.47	4.42	6,798.4	121.9	9.4	-121.7	0.00	0.00	0.00
6,900.0	1.47	4.42	6,898.4	124.4	9.6	-124.3	0.00	0.00	0.00
7,000.0	1.47	4.42	6,998.4	127.0	9.8	-126.9	0.00	0.00	0.00
7,100.0	1.47	4.42	7,098.3	129.5	10.0	-129.4	0.00	0.00	0.00
7,200.0	1.47	4.42	7,198.3	132.1	10.2	-132.0	0.00	0.00	0.00
7,300.0	1.47	4.42	7,298.3	134.7	10.4	-134.5	0.00	0.00	0.00
7,400.0	1.47	4.42	7,398.2	137.2	10.6	-137.1	0.00	0.00	0.00
7,500.0	1.47	4.42	7,498.2	139.8	10.8	-139.6	0.00	0.00	0.00
7,600.0	1.47	4.42	7,598.2	142.3	11.0	-142.2	0.00	0.00	0.00
7,700.0	1.47	4.42	7,698.1	144.9	11.2	-144.8	0.00	0.00	0.00
7,800.0	1.47	4.42	7,798.1	147.4	11.4	-147.3	0.00	0.00	0.00
7,900.0	1.47	4.42	7,898.1	150.0	11.6	-149.9	0.00	0.00	0.00
8,000.0	1.47	4.42	7,998.0	152.6	11.8	-152.4	0.00	0.00	0.00
8,100.0	1.47	4.42	8,098.0	155.1	12.0	-155.0	0.00	0.00	0.00
8,200.0	1.47	4.42	8,198.0	157.7	12.2	-157.5	0.00	0.00	0.00
8,300.0	1.47	4.42	8,297.9	160.2	12.4	-160.1	0.00	0.00	0.00
8,400.0	1.47	4.42	8,397.9	162.8	12.6	-162.6	0.00	0.00	0.00
8,417.1	1.47	4.42	8,415.0	163.2	12.6	-163.1	0.00	0.00	0.00
Top of FBSG SD									



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 007H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	North Reference:	Grid
Well:	Explorer 15 State Com 007H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,500.0	1.47	4.42	8,497.9	165.4	12.8	-165.2	0.00	0.00	0.00	
8,600.0	1.47	4.42	8,597.8	167.9	13.0	-167.8	0.00	0.00	0.00	
8,700.0	1.47	4.42	8,697.8	170.5	13.2	-170.3	0.00	0.00	0.00	
8,800.0	1.47	4.42	8,797.8	173.0	13.4	-172.9	0.00	0.00	0.00	
8,900.0	1.47	4.42	8,897.7	175.6	13.6	-175.4	0.00	0.00	0.00	
9,000.0	1.47	4.42	8,997.7	178.1	13.8	-178.0	0.00	0.00	0.00	
9,100.0	1.47	4.42	9,097.7	180.7	14.0	-180.5	0.00	0.00	0.00	
9,116.3	1.47	4.42	9,114.0	181.1	14.0	-181.0	0.00	0.00	0.00	
Top of SBSG SD										
9,200.0	1.47	4.42	9,197.6	183.3	14.2	-183.1	0.00	0.00	0.00	
9,300.0	1.47	4.42	9,297.6	185.8	14.4	-185.6	0.00	0.00	0.00	
9,400.0	1.47	4.42	9,397.6	188.4	14.6	-188.2	0.00	0.00	0.00	
9,408.4	1.47	4.42	9,406.0	188.6	14.6	-188.4	0.00	0.00	0.00	
Top of TBSG Carb										
9,500.0	1.47	4.42	9,497.5	190.9	14.8	-190.8	0.00	0.00	0.00	
9,600.0	1.47	4.42	9,597.5	193.5	15.0	-193.3	0.00	0.00	0.00	
9,639.5	1.47	4.42	9,637.0	194.5	15.0	-194.3	0.00	0.00	0.00	
Top of TBSG SD										
9,700.0	1.47	4.42	9,697.5	196.1	15.1	-195.9	0.00	0.00	0.00	
9,734.5	1.47	4.42	9,732.0	196.9	15.2	-196.8	0.00	0.00	0.00	
Top WFMP										
9,800.0	1.47	4.42	9,797.4	198.6	15.3	-198.4	0.00	0.00	0.00	
9,900.0	1.47	4.42	9,897.4	201.2	15.5	-201.0	0.00	0.00	0.00	
10,000.0	1.47	4.42	9,997.4	203.7	15.7	-203.5	0.00	0.00	0.00	
10,100.0	1.47	4.42	10,097.3	206.3	15.9	-206.1	0.00	0.00	0.00	
10,200.0	1.47	4.42	10,197.3	208.8	16.1	-208.7	0.00	0.00	0.00	
10,300.0	1.47	4.42	10,297.3	211.4	16.3	-211.2	0.00	0.00	0.00	
10,400.0	1.47	4.42	10,397.3	214.0	16.5	-213.8	0.00	0.00	0.00	
10,500.0	1.47	4.42	10,497.2	216.5	16.7	-216.3	0.00	0.00	0.00	
10,599.3	1.47	4.42	10,596.5	219.1	16.9	-218.9	0.00	0.00	0.00	
Start Drop -2.00										
10,600.0	1.46	4.42	10,597.2	219.1	16.9	-218.9	2.00	-2.00	0.00	
10,672.8	0.00	0.00	10,670.0	220.0	17.0	-219.8	2.00	-2.00	-6.07	
Start 102.5 hold at 10672.8 MD										
10,700.0	0.00	0.00	10,697.2	220.0	17.0	-219.8	0.00	0.00	0.00	
10,775.4	0.00	0.00	10,772.5	220.0	17.0	-219.8	0.00	0.00	0.00	
KOP #2 - Start Build 12.00										
10,800.0	2.96	179.48	10,797.2	219.4	17.0	-219.2	12.00	12.00	0.00	
10,900.0	14.96	179.48	10,895.8	203.8	17.1	-203.6	12.00	12.00	0.00	
11,000.0	26.96	179.48	10,989.0	168.1	17.5	-167.9	12.00	12.00	0.00	
11,100.0	38.96	179.48	11,072.7	113.8	18.0	-113.6	12.00	12.00	0.00	
11,185.1	49.17	179.48	11,133.8	54.7	18.5	-54.5	12.00	12.00	0.00	
Explorer 15 State Com 007H FTP										
11,200.0	50.96	179.48	11,143.4	43.3	18.6	-43.1	12.00	12.00	0.00	
11,300.0	62.96	179.48	11,197.8	-40.4	19.4	40.6	12.00	12.00	0.00	
11,400.0	74.96	179.48	11,233.6	-133.5	20.2	133.7	12.00	12.00	0.00	
11,500.0	86.96	179.48	11,249.3	-232.1	21.1	232.3	12.00	12.00	0.00	
11,525.4	90.00	179.48	11,250.0	-257.4	21.4	257.7	12.00	12.00	0.00	
LP - Start 9936.7 hold at 11525.4 MD										
11,600.0	90.00	179.48	11,250.0	-332.1	22.0	332.3	0.00	0.00	0.00	
11,700.0	90.00	179.48	11,250.0	-432.1	22.9	432.3	0.00	0.00	0.00	
11,800.0	90.00	179.48	11,250.0	-532.1	23.9	532.3	0.00	0.00	0.00	
11,900.0	90.00	179.48	11,250.0	-632.1	24.8	632.3	0.00	0.00	0.00	



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 007H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	North Reference:	Grid
Well:	Explorer 15 State Com 007H	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)
12,000.0	90.00	179.48	11,250.0	-732.1	25.7	732.3	0.00	0.00	0.00
12,100.0	90.00	179.48	11,250.0	-832.1	26.6	832.3	0.00	0.00	0.00
12,200.0	90.00	179.48	11,250.0	-932.1	27.5	932.3	0.00	0.00	0.00
12,300.0	90.00	179.48	11,250.0	-1,032.1	28.4	1,032.3	0.00	0.00	0.00
12,400.0	90.00	179.48	11,250.0	-1,132.1	29.3	1,132.3	0.00	0.00	0.00
12,500.0	90.00	179.48	11,250.0	-1,232.0	30.2	1,232.3	0.00	0.00	0.00
12,600.0	90.00	179.48	11,250.0	-1,332.0	31.1	1,332.3	0.00	0.00	0.00
12,700.0	90.00	179.48	11,250.0	-1,432.0	32.1	1,432.3	0.00	0.00	0.00
12,800.0	90.00	179.48	11,250.0	-1,532.0	33.0	1,532.3	0.00	0.00	0.00
12,900.0	90.00	179.48	11,250.0	-1,632.0	33.9	1,632.3	0.00	0.00	0.00
13,000.0	90.00	179.48	11,250.0	-1,732.0	34.8	1,732.3	0.00	0.00	0.00
13,100.0	90.00	179.48	11,250.0	-1,832.0	35.7	1,832.3	0.00	0.00	0.00
13,200.0	90.00	179.48	11,250.0	-1,932.0	36.6	1,932.3	0.00	0.00	0.00
13,300.0	90.00	179.48	11,250.0	-2,032.0	37.5	2,032.3	0.00	0.00	0.00
13,400.0	90.00	179.48	11,250.0	-2,132.0	38.4	2,132.3	0.00	0.00	0.00
13,500.0	90.00	179.48	11,250.0	-2,232.0	39.4	2,232.3	0.00	0.00	0.00
13,600.0	90.00	179.48	11,250.0	-2,332.0	40.3	2,332.3	0.00	0.00	0.00
13,700.0	90.00	179.48	11,250.0	-2,432.0	41.2	2,432.3	0.00	0.00	0.00
13,800.0	90.00	179.48	11,250.0	-2,532.0	42.1	2,532.3	0.00	0.00	0.00
13,900.0	90.00	179.48	11,250.0	-2,632.0	43.0	2,632.3	0.00	0.00	0.00
14,000.0	90.00	179.48	11,250.0	-2,732.0	43.9	2,732.3	0.00	0.00	0.00
14,100.0	90.00	179.48	11,250.0	-2,832.0	44.8	2,832.3	0.00	0.00	0.00
14,200.0	90.00	179.48	11,250.0	-2,932.0	45.7	2,932.3	0.00	0.00	0.00
14,300.0	90.00	179.48	11,250.0	-3,032.0	46.6	3,032.3	0.00	0.00	0.00
14,400.0	90.00	179.48	11,250.0	-3,132.0	47.6	3,132.3	0.00	0.00	0.00
14,500.0	90.00	179.48	11,250.0	-3,232.0	48.5	3,232.3	0.00	0.00	0.00
14,600.0	90.00	179.48	11,250.0	-3,332.0	49.4	3,332.3	0.00	0.00	0.00
14,700.0	90.00	179.48	11,250.0	-3,432.0	50.3	3,432.3	0.00	0.00	0.00
14,800.0	90.00	179.48	11,250.0	-3,532.0	51.2	3,532.3	0.00	0.00	0.00
14,900.0	90.00	179.48	11,250.0	-3,631.9	52.1	3,632.3	0.00	0.00	0.00
15,000.0	90.00	179.48	11,250.0	-3,731.9	53.0	3,732.3	0.00	0.00	0.00
15,100.0	90.00	179.48	11,250.0	-3,831.9	53.9	3,832.3	0.00	0.00	0.00
15,200.0	90.00	179.48	11,250.0	-3,931.9	54.9	3,932.3	0.00	0.00	0.00
15,300.0	90.00	179.48	11,250.0	-4,031.9	55.8	4,032.3	0.00	0.00	0.00
15,400.0	90.00	179.48	11,250.0	-4,131.9	56.7	4,132.3	0.00	0.00	0.00
15,500.0	90.00	179.48	11,250.0	-4,231.9	57.6	4,232.3	0.00	0.00	0.00
15,600.0	90.00	179.48	11,250.0	-4,331.9	58.5	4,332.3	0.00	0.00	0.00
15,700.0	90.00	179.48	11,250.0	-4,431.9	59.4	4,432.3	0.00	0.00	0.00
15,800.0	90.00	179.48	11,250.0	-4,531.9	60.3	4,532.3	0.00	0.00	0.00
15,900.0	90.00	179.48	11,250.0	-4,631.9	61.2	4,632.3	0.00	0.00	0.00
16,000.0	90.00	179.48	11,250.0	-4,731.9	62.1	4,732.3	0.00	0.00	0.00
16,100.0	90.00	179.48	11,250.0	-4,831.9	63.1	4,832.3	0.00	0.00	0.00
16,200.0	90.00	179.48	11,250.0	-4,931.9	64.0	4,932.3	0.00	0.00	0.00
16,300.0	90.00	179.48	11,250.0	-5,031.9	64.9	5,032.3	0.00	0.00	0.00
16,400.0	90.00	179.48	11,250.0	-5,131.9	65.8	5,132.3	0.00	0.00	0.00
16,500.0	90.00	179.48	11,250.0	-5,231.9	66.7	5,232.3	0.00	0.00	0.00
16,600.0	90.00	179.48	11,250.0	-5,331.9	67.6	5,332.3	0.00	0.00	0.00
16,700.0	90.00	179.48	11,250.0	-5,431.9	68.5	5,432.3	0.00	0.00	0.00
16,800.0	90.00	179.48	11,250.0	-5,531.9	69.4	5,532.3	0.00	0.00	0.00
16,900.0	90.00	179.48	11,250.0	-5,631.9	70.3	5,632.3	0.00	0.00	0.00
17,000.0	90.00	179.48	11,250.0	-5,731.9	71.3	5,732.3	0.00	0.00	0.00
17,100.0	90.00	179.48	11,250.0	-5,831.9	72.2	5,832.3	0.00	0.00	0.00
17,200.0	90.00	179.48	11,250.0	-5,931.9	73.1	5,932.3	0.00	0.00	0.00
17,300.0	90.00	179.48	11,250.0	-6,031.8	74.0	6,032.3	0.00	0.00	0.00



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 007H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	North Reference:	Grid
Well:	Explorer 15 State Com 007H	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)	
17,400.0	90.00	179.48	11,250.0	-6,131.8	74.9	6,132.3	0.00	0.00	0.00	
17,500.0	90.00	179.48	11,250.0	-6,231.8	75.8	6,232.3	0.00	0.00	0.00	
17,600.0	90.00	179.48	11,250.0	-6,331.8	76.7	6,332.3	0.00	0.00	0.00	
17,700.0	90.00	179.48	11,250.0	-6,431.8	77.6	6,432.3	0.00	0.00	0.00	
17,800.0	90.00	179.48	11,250.0	-6,531.8	78.6	6,532.3	0.00	0.00	0.00	
17,900.0	90.00	179.48	11,250.0	-6,631.8	79.5	6,632.3	0.00	0.00	0.00	
18,000.0	90.00	179.48	11,250.0	-6,731.8	80.4	6,732.3	0.00	0.00	0.00	
18,100.0	90.00	179.48	11,250.0	-6,831.8	81.3	6,832.3	0.00	0.00	0.00	
18,200.0	90.00	179.48	11,250.0	-6,931.8	82.2	6,932.3	0.00	0.00	0.00	
18,300.0	90.00	179.48	11,250.0	-7,031.8	83.1	7,032.3	0.00	0.00	0.00	
18,400.0	90.00	179.48	11,250.0	-7,131.8	84.0	7,132.3	0.00	0.00	0.00	
18,500.0	90.00	179.48	11,250.0	-7,231.8	84.9	7,232.3	0.00	0.00	0.00	
18,600.0	90.00	179.48	11,250.0	-7,331.8	85.8	7,332.3	0.00	0.00	0.00	
18,700.0	90.00	179.48	11,250.0	-7,431.8	86.8	7,432.3	0.00	0.00	0.00	
18,800.0	90.00	179.48	11,250.0	-7,531.8	87.7	7,532.3	0.00	0.00	0.00	
18,900.0	90.00	179.48	11,250.0	-7,631.8	88.6	7,632.3	0.00	0.00	0.00	
19,000.0	90.00	179.48	11,250.0	-7,731.8	89.5	7,732.3	0.00	0.00	0.00	
19,100.0	90.00	179.48	11,250.0	-7,831.8	90.4	7,832.3	0.00	0.00	0.00	
19,200.0	90.00	179.48	11,250.0	-7,931.8	91.3	7,932.3	0.00	0.00	0.00	
19,300.0	90.00	179.48	11,250.0	-8,031.8	92.2	8,032.3	0.00	0.00	0.00	
19,400.0	90.00	179.48	11,250.0	-8,131.8	93.1	8,132.3	0.00	0.00	0.00	
19,500.0	90.00	179.48	11,250.0	-8,231.8	94.1	8,232.3	0.00	0.00	0.00	
19,600.0	90.00	179.48	11,250.0	-8,331.8	95.0	8,332.3	0.00	0.00	0.00	
19,700.0	90.00	179.48	11,250.0	-8,431.7	95.9	8,432.3	0.00	0.00	0.00	
19,800.0	90.00	179.48	11,250.0	-8,531.7	96.8	8,532.3	0.00	0.00	0.00	
19,900.0	90.00	179.48	11,250.0	-8,631.7	97.7	8,632.3	0.00	0.00	0.00	
20,000.0	90.00	179.48	11,250.0	-8,731.7	98.6	8,732.3	0.00	0.00	0.00	
20,100.0	90.00	179.48	11,250.0	-8,831.7	99.5	8,832.3	0.00	0.00	0.00	
20,200.0	90.00	179.48	11,250.0	-8,931.7	100.4	8,932.3	0.00	0.00	0.00	
20,300.0	90.00	179.48	11,250.0	-9,031.7	101.3	9,032.3	0.00	0.00	0.00	
20,400.0	90.00	179.48	11,250.0	-9,131.7	102.3	9,132.3	0.00	0.00	0.00	
20,500.0	90.00	179.48	11,250.0	-9,231.7	103.2	9,232.3	0.00	0.00	0.00	
20,600.0	90.00	179.48	11,250.0	-9,331.7	104.1	9,332.3	0.00	0.00	0.00	
20,700.0	90.00	179.48	11,250.0	-9,431.7	105.0	9,432.3	0.00	0.00	0.00	
20,800.0	90.00	179.48	11,250.0	-9,531.7	105.9	9,532.3	0.00	0.00	0.00	
20,900.0	90.00	179.48	11,250.0	-9,631.7	106.8	9,632.3	0.00	0.00	0.00	
21,000.0	90.00	179.48	11,250.0	-9,731.7	107.7	9,732.3	0.00	0.00	0.00	
21,100.0	90.00	179.48	11,250.0	-9,831.7	108.6	9,832.3	0.00	0.00	0.00	
21,200.0	90.00	179.48	11,250.0	-9,931.7	109.5	9,932.3	0.00	0.00	0.00	
21,300.0	90.00	179.48	11,250.0	-10,031.7	110.5	10,032.3	0.00	0.00	0.00	
21,400.0	90.00	179.48	11,250.0	-10,131.7	111.4	10,132.3	0.00	0.00	0.00	
21,462.1	90.00	179.48	11,250.0	-10,193.8	111.9	10,194.4	0.00	0.00	0.00	
TD at 21462.1 - Explorer 15 State Com 007H LTP/BHL										



Planning Report



Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Explorer 15 State Com 007H
Company:	Avant Operating, LLC	TVD Reference:	WELL @ 4044.5usft (4044.5)
Project:	Lea Co., NM (NAD 83)	MD Reference:	WELL @ 4044.5usft (4044.5)
Site:	Explorer 15 State Com Pad 2	North Reference:	Grid
Well:	Explorer 15 State Com 007H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0.1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Explorer 15 State Com C	0.00	0.00	11,250.0	171.1	15.6	639,217.65	784,008.27	32.7547590°N	103.5439700°W
- plan misses target center by 164.5usft at 11185.1usft MD (11133.8 TVD, 54.7 N, 18.5 E)									
- Point									
Explorer 15 State Com C	0.00	0.00	11,250.0	-10,193.8	111.9	628,852.77	784,104.57	32.7262700°N	103.5439080°W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,780.0	1,780.0	RUSTLER				
1,890.0	1,890.0	SALT				
3,655.5	3,655.0	SEVEN RIVERS				
4,390.8	4,390.0	QUEEN				
4,998.0	4,997.0	CAPITAN REEF				
5,653.2	5,652.0	CHERRY CANYON				
5,811.2	5,810.0	BRUSHY CANYON				
6,591.5	6,590.0	Top of BSG				
8,417.1	8,415.0	Top of FBSG SD				
9,116.3	9,114.0	Top of SBSG SD				
9,408.4	9,406.0	Top of TBSG Carb				
9,639.5	9,637.0	Top of TBSG SD				
9,734.5	9,732.0	Top WFMP				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.0	2,000.0	0.0	0.0	KOP - Start Build 2.00
2,073.5	2,073.5	0.9	0.1	Start 8525.8 hold at 2073.5 MD
10,599.3	10,596.5	219.1	16.9	Start Drop -2.00
10,672.8	10,670.0	220.0	17.0	Start 102.5 hold at 10672.8 MD
10,775.4	10,772.5	220.0	17.0	KOP #2 - Start Build 12.00
11,525.4	11,250.0	-257.4	21.4	LP - Start 9936.7 hold at 11525.4 MD
21,462.1	11,250.0	-10,193.8	111.9	TD at 21462.1